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### Barley as Compared With Corn.

Many farmers who have come to California from the great corn States east of the Rocky mountains have probably drawn conclusions from their own experience as to the value of the barley which they feed in California, as compared with corn, the great feed grain of their own State. They will be interested in a statement of the results obtained by experiments by Prof. W. A. Henry of the Wisconsin Experiment Station.

The purpose of the first experiment was to determine the value of barley in comparison with corn for hog-feeding. In the first trial 10 hogs, 14 months old, were divided into two lots of five each. To the first lot was fed barley meal, while the second received cornmeal. The experiment continued eight weeks, during which time the first lot of hogs consumed 2832 lbs. of barley meal and gained 601 lbs. In the same time the second lot of hogs consumed 3100 lbs. of cornmeal and gained 713 lbs. From this we find that:

Lot I required 471 lbs. of barley meal for 100 lbs. gain.

Lot 2 required 435 pounds of cornmeal for 100 lbs. gain.

This shows that it required 36 lbs., or 8 per cent more barley meal than cornmeal to produce 100 lbs. of gain. In this experiment both feeds were soaked with water. It was found that it required about 3 lbs. of water to properly soak a pound of barley meal, while a pound of cornmeal required but 2 lbs. of water. The hogs fed on barley meal consumed 30 lbs. of water daily with the feed, while the hogs on cornmeal consumed 22 lbs. daily. Even with this large amount of water in the feed the barley hogs drank 2 lbs. extra, daily, from a separate trough, while the cornmeal hogs drank but three-fourths of a pound.

Another experiment was to compare barley-meal and sweet skim milk versus cornmeal and sweet skim milk as food for pigs. The pigs were about five months old at the beginning of the trial. There were six pigs in each lot. The experiment lasted nine weeks, during which time Lot I consumed 1993 pounds of barley-meal, 2404 pounds of sweet skim milk, and gained 604 pounds. In the same time, Lot II consumed 1807 pounds of cornmeal, 2192 pounds of sweet skim milk, and gained 591 pounds.

Lot I consumed 330 pounds of barley-meal and 398 pounds of sweet skim milk for 100 pounds of gain.

Lot II consumed 306 pounds of cornmeal and 371 pounds of sweet skim milk for 100 pounds of gain.

Again, there is a difference of about 8 per cent in favor of the corn. These experiments showed that when feeding barley care should be taken to prepare the food so as to render it palatable. Hogs will eat cornmeal in almost any shape, dry, wet and even sour; when fed barley-meal, their preference calls for considerable soaking in a comparatively large amount of water.

In commenting upon the experiments Prof. Henry adds:

Our results show that barley is not quite so valuable as corn, pound for pound or laying on fat, but we must remember that corn has a very high feeding value in such cases as this. One prime use for barley is in giving the farmer an additional variety of feed. As a rule we have too few kinds of feed upon our farms, and we rely too much on corn. In barley we have a

feed capable of building up bone and muscle, and serving a generally useful purpose on the farm. In California it is the almost universal horse feed, and no animals have more endurance than horses raised and fed on rolled barley. Barley is the common grain feed of England and North Europe.

And from this we infer that when Prof. Henry comes to live upon his San Diego county

PLANTS AS REAGENTS.—From the results given it appears that by means of beer yeast it is possible to recognize the presence of 0.0005 gm. of phosphate in one liter of water, which corresponds to 5-10,000,000ths of the weight of the liquid. But agricultural plants are also reagents of an extreme delicacy and accuracy.



OUR STATE FLOWER, THE CALIFORNIA POPPY — *Echscholtzia Californica*.

ranch he will count that the ollmate will more than make up the 8 per cent deficiency in the barley, and that California without corn is better than the central west with it. But we anticipate.

THE WONDERS OF NATURE.—Certain worms similar to the tablix multiply by producing new parts. There is one form, known by the quaint name of Nais, which will develop in the midst of its own body a second head, and just in front of the new head a second tail. Thus there come to be, as it were, two worms joined together; the front one has the old head and a new tail, the hind one a new head and the old tail. By and by the companions separate, and the parent body is thus transformed into two complete animals.

The author gives as an example the sugar cane, the dominant food of which is calcium phosphate. With the complete manure the cane gives a harvest of 57,000 kilos. per hectare. If we omit the phosphate, the yield is only 15,000 kilos. Hence 600 kilos. superphosphate, containing 90 kilos. phosphoric acid, determine an excess of crop of 42,000 kilos. per hectare, which represents 70 times the weight of the phosphate and 466 times the weight of the phosphoric acid. If referred to the 4,000,000 kilos of vegetable soil covering the surface of a hectare, the phosphate represents less than 1/6,000 part of the weight of the soil and the phosphoric acid less than one forty thousandth. The author, George Ville, hopes to fix the limits of this method.

### Our State Flower.

We place upon the first page of our new volume a portrait of our new State Flower as adopted at the last meeting of the State Floral Society. The announcement of this action has been followed by approving comment in the public press, and in such conversation as has come to our ears. This flower of the whole year and the whole State, and in its typical species, only of the State, is by common consent crowned as the queen flower of California.

Our engraving has a botanical rather than an artistic cast. Perhaps at another time we may present a prettier picture, but just now it seems desirable that our distant readers should know just what sort of a flower has been given the scepter in California, and this can be best shown by the botanist's heartless method of analysis. Fig. 1 shows the full bloom, the style of the leaf and stem, also the pointed seed-pod, which Fig. 2 shows as opened when still green, and Fig. 3 presents the pod as it naturally opens when dry and mature. Fig. 4 is the upper part of the seed-pod before opening. Fig. 5 is a seed magnified and Fig. 6 is a section of the same, showing the germ, while Fig. 7 shows the germ more highly magnified. Fig. 8 shows how the stamens are attached to the petals of the corolla, and Fig. 9 is a cross-section of the unripe seed-pod.

In connection with the engraving which will introduce our State flower to those who do not know it, we cannot do better than reproduce the closing paragraphs of Miss Pratt's essay, read at the November meeting of the Floral Society, which well portrays some of the characteristics of the flower that entitle it to the distinction it has received:

In choosing a floral emblem for a State, it is desirable that the flower should be a native, and not only widely distributed but striking, so that everybody may thoroughly know it, and that it will be among the first to attract the attention of the children and so connected with their earliest memories, but that it should be beautiful, easily represented in paintings, carvings or architectural designs; and for this State it seems specially desirable that the flower should be golden in color. All these requirements this little blossom fully satisfies. The typical flower is found only within our borders, though varieties occur as far north as Washington and southeast to Texas—about 10 in all, varying in manner of growth, color or both; but the *Echscholtzia*, as we know it, is never found outside of our State. One has only to watch the children coming home from a trip to the country to see which flower they love best. It is one of their greatest delights to pick a whole armful, and the quantities the florists gather and bring to the city show that the older people fully appreciate their choice. No other California wild flower is so widely known or so highly prized as this, and surely no other has been painted so many times.

Both flower and foliage are well adapted for carving or decorating our buildings or banners, and who can describe its color? All the golden emblems of the State combined seem to be needed to give this wonderfully glistening, brilliant, intense coloring, which after all can never be represented, and, like so many other wonders, people must come here and see to fully appreciate.



## FLORIST AND GARDENER

### Wild Flowers.

[An essay by Miss LILIAN HOWARD, of Santa Cruz, read at the Santa Cruz Horticultural Convention.]

The great mass of wild flowers form the unconsidered trifles of our fields and plains. They owe no thanks to man, for he does not care to perpetuate them, neither have they fear of him, for they do not, as a class, infringe upon his domain. A few may please him by their brilliancy of coloring, as they grow in meadows and blend harmoniously with some pleasing landscape; their patches and hands of blue and white and their long stretches of gold and orange may compel attention and even admiration. A few may please the casual observer by the beauty or peculiarity of their forms, as in the case of the rose, the lily, the dicentra, and the lady slipper.

A few have become general favorites on account of their extreme delicacy of form and color, as the baby blue eyes and the lily bell. But it remains a melancholy fact that the popular expression is a cynical smile and a suppressed murmur of *weeds*, when the subject is broached.

Well, there are weeds and weeds. A few of our flowers have become social outcasts, and lift their dainty cups rather saucily, without receiving an admiring glance, except from some misguided hotanist, or maybe a sentimental but unsophisticated young lady, who is informed with a covert smile that she may have a whole county full, and welcome, if she will only pick them out. The bind weed, red sorrel, and the so-called yellow heliotrope may serve to point a moral and arouse a smile at the expense of an enthusiast.

Weeds? And how different they really are from weeds. The real weed is as much of an aristocrat as wheat or corn, and usually gets the same amount of cultivation. He lives by his wits, but gets the best the land affords. Of course we do not mean the timid one that peeps up along the wayside, or in neglected fence corners, or takes unto itself a bit of waste land, to be cast out the first time the soil is turned by the plow. We mean the kind that tries to take the whole farm, wants to grow in the mellowest soil, overshadows the young crop above ground, and sends out millions of little roots to choke it off underground. The flowers are inconspicuous, that it may not waste its substance in show. Its seeds are produced in countless numbers, and of course they are ripened and scattered before the crop is ready to be gathered. These seeds are furnished with quaint devices for preservation and dissemination, as hurls to catch the coats of passing animals; little hooks to anchor themselves to the ground or other weeds; twisted awns with bristles, to cling to the ground; down, that will float them far and wide on the breeze; and lastly a bitter or nauseous taste, or a gummy coat, to discourage the browsing propensity of animals. Whatever plan man or beast contrives against them, they try to meet it in time with a cunning device for defense, so after a long and relentless war, our most troublesome weeds are developed.

Their vitality has furnished subject for epigram and moral in all ages, and the longer they have contended against man, the more exasperating they are. For it is a well-known fact that the strong, aggressive weeds of older settled countries overtop and thin out the weeds of new countries which have not been compelled to fight for their lives. So weeds are as much the result of selection as the giant pansies, rainbows roses and Japanese chrysanthemums of the horticulturist. Then our flowers being the results of modifying circumstances and conditions through a long course of years, whatever serves as a distinguishing mark in our cultivated as well as our wild species is the sign to tell the story of their lives to him who reads.

But there are always two sides to a story, and if the thistle and the cactus could tell of their wrongs, no doubt the story would reconcile us to their prickly skins. If, as I said, imitation is the sincerest flattery, what intelligence we must grant some of the wild flowers of our hot, dusty plains and hillsides. There grows the Mexican poppy, with spines and needles that would outstick a Canada thistle, and with the same dusty, white downed leaves as its thistle neighbor. A casual observer would readily mistake it, and it is only when the glory of its delicate white blossoms are unfolded that the cheat is discovered. Who and what was the enemy against which the cunning flower fairly first armed itself? That its defense is secure, the rash investigator can mournfully testify.

There must have been a wonderfully omnivorous beast of the field prowling these plains in those old days, or it must have been a much starved one, for this poppy is not the only plant which has here thrice armed itself. A species of wild sage has adopted the same livery, and pushes out its curious long blue corollas with its salmon pink anthers, from a bristling circle of prickles that would do honor to any thistle. Blue is the bee-color fortunately, and I am sure no other creature would willingly face the out-post for the sake of the treasured honey.

The mentzelia is a co-resident of these advanced thinkers, and is almost converted to their ways; it is not quite so dusty, not so prickly and much more showy than its neighbors. Protection is their motto, for on those wide stretches of dry country, the race is to the one who will not be eaten, and to the one

who will not be killed by thirst; so the object of their little lives is to store up their moisture, to hide themselves and to be unpalatable when found.

But our most beautiful wild flowers are found in our fields and in the borders of our forests, as the popularity of our creamcups, nemophilas, gillias and lupines shows. Our lilyhells, too, are a revelation in themselves, and an open hillside with yellow calochortas, Johnny-jump-ups and pink mallows is a feast for all eyes.

But the snowy lilyhell is our poem; in color, in form and in manner of growth it appeals to us, and though usually called by an unepithetous name (harebell), it is still the one treasure of our fields most valued. It varies in color from a deep, dull crimson to a clear white, tinged with pink and green, and the pretty hells hang in clusters of from three to ten on their slender stems. Then its cousins of all colors, the golden lilyhell or *Dicentra*'s Lantern, the many-colored *Mariposa* lily, the white clustered variety with its long leaves, and the pale-lavender variety, are almost as interesting as itself, and furnish many a suggestive page for the paragrapher, the sketcher and the poet.

In fact, the lily family is well represented in our State, and our fields can vie with our gardens in presenting this most graceful flower. The tiger-lily, the white Washington lily and some smaller varieties remind us in a dignified way that Dame Nature is still in the race with man for horticultural honors. The eagerness with which picnic-goers storn the preserves of the tiger-lily is a lasting tribute to its beauty and grace. But—alas! the cows are just as fond of it, and only what they cannot reach is left for the human flower-lover. We respect the craft of the thistle now, and wish for armor for the lily.

In our hasty survey, we can pay only a passing tribute to the beautiful members of the pea tribe which flourish among us. In richness of color and in variety they are surpassed by few other flowers, and as it is always a pleasure to see a well-known face in a crowd, so we are glad to come across the familiar butterfly petals in a wilderness of new plants. The lupines, yellow, white and all shades of blue and purple, with occasionally a pink stranger, the clovers, the vetches, thermopsis and a host of kindred with most unsocial names, are among the gems which brighten our fertile land.

On the subject of names let me present a brief plea. One is debarred, of course, from speaking of the scientific names; they are settled, and as far as one can judge, well settled. But the local names, the home names, are insufficient and so loosely applied that it is simply exasperating to try to verify many of them. There are a number of pretty names float which are applied to many flowers, as blue bells, wild pansy and wild forget-me-not, and there seems to be no particular flower that can prove its claims to the name. For instance, the name wild heliotrope is given to several widely varying plants, and there is a true heliotrope, rather insignificant in size, but even the least has a right to its name.

In one case I saw in a widely advertised collection of wild flowers, a flower-cluster nearly three inches long, bright scarlet in color, labeled with the name burr-clover. Of course one does not wish to be too particular, but the line must be drawn somewhere, and a reasonable amount of accuracy is not to be despised.

Many of our beautiful and effective plants have no common English names, and it is so easy to prefix *wild* to some familiar name and so hand it down—a delusion and a snare to all botanically inclined students. Most of our native flowers probably have Spanish names and musical ones, too, given by the people who have lived with them, have seen, with a poetic eye, their many charms, and have had many tender associations connected with them. These names we should preserve as far as possible, for they are usually pointed, picturesque, and perpetuate the traditions of the soil. Our madrono and manzanita are good examples of this class of names, and they seem to be popular; others, as chicolote, yerba buena, and yerba santa, are fully as pleasant to the ear.

Leaving aside these flowers as denizens of the field and of the wood, and viewing them in the sacrilegious light of transplanting, our query is: "Which of these are suitable for cultivation?" This question has been answered for us in a great measure, for in many catalogues of Eastern growers our flowers are well represented. Among them are the California poppy in its yellow and gold and its developed cardinal cousin, the nemophila, in all shades and sizes, the limnanthes and the Mexican poppy, which has recently become a favorite, while the Romneya Coulteri, with its great oreop-like white blossoms, has won a lasting reputation for itself.

The tiger lily, the azalea, the rhododendron, where it will bear transplanting, the spirea, the clematis and the scarlet gooseberry, under the ambiguous name of coral plant, have already enriched our gardens, and where one can withdraw himself from the worship of varying forms of our common garden flowers, he will find these most charming companions. They give a wild, sappy air to a garden, but it must be acknowledged that they look as if they felt degraded and longed to escape.

The salmon herry, with its red flowers and luscious-looking fruit, seems to be challenging one to a feast worthy of the gods; maybe the gods could eat them, but at present they are rather sour for the human palate. Culture ought to do something for them.

In our forests grow trees and shrubs that

would lend themselves favorably to artistic gardening, as the chinquapin, with its gold-lined leaves, the California nutmeg or yew, and even our common hockeye with heavy blue-green foliage, would prove invaluable if properly managed. The madrono, the tree-like manzanita and the laurel have already been tried and have been heartily approved. They belong to our climate and can be disposed of in landscape gardening with as much grace and relief as the foreign trees.

For a long time it was the style to adore wild flowers, but a careful observer could see that all who adored them chose the largest and brightest or those most easily obtained; the true flower lover then as now garded his treasures with a somewhat jealous eye.

The popularity of our flowers enjoy in other places may be only another proof of the old proverb, "A prophet is not without honor," but the interest shown in the recent field flower contest among the pupils of our county proves that we do not need to hear from abroad before learning to value our home treasures.

## THE STOCK YARD.

### Packing-House Projects.

The return yesterday from Chicago of Peter E. Her, who has been one of the chief projectors of the big stock-yard at Biden, revives interest in that and similar enterprises about this city. While he has been away, little has been done on the Biden scheme, but another similar project on the bay shore near Pinole has been pushed on very rapidly. The completion of these stock-yards and packing-houses is of much local interest, for the industry promises to be of great value to San Francisco. Mr. Her says of the Biden project that before actual operations of large importance are begun, four companies will be organized and incorporated here. These will be an abattoir company, a stock-yards company, a land company and a banking company. These will be organized about the 1st of January on the arrival of R. J. Martin, the legal representative of Armour & Co., and of Albert Veeder, who is with Nelson Morris. As soon as these companies are organized and directors elected they will go ahead rapidly with the improvements decided upon. By early spring they will have large forces of men at work and many buildings will be going up.

Travelers on the trains between here and Port Costa cannot but have noticed the many changes wrought recently in the appearance of things near Pinole at a little station known as Tormey. It is on the bay shore about 25 miles from this city. Up to within a few months nothing marked the locality in any distinguishing manner except when a venturesome cow from the many grazing herds became mired in the swamps that extend from the low hills to the beach. The land near was used only for grazing or for raising bay. Now there is a fine three-story hotel of artistic design, some 15 acres of land have been graded, several acres of sheds, floored and shingled, have been put up, and a long side-track extends from the main-line road up to the yards. A sign announces that all this work has been done by the Union Stock-Yards Company of San Francisco. Several Eastern men are interested with local capitalists in the project, among them R. A. Harris and Silberhorn & Co. of Chicago.

The hotel and sheds are not yet completed, but over 200 men are busily employed, and are making time tell on the necessary labor. The hotel is 170 feet long, 60 feet wide, with an L 45x136 feet. It is to be lighted by electricity, as are all the yards and buildings. In the stockyards, covering over eight acres, are 45 cattle-pens, each holding from 30 to 50 animals. Stout partitions of planking divide each pen, and all are floored with 2-inch planks. All are well drained, with convenient arrangement for watering and feeding. Around, between and above the pens are railed passageways, so that the cattle can be conveniently inspected. In among the cattle-pens a weighing machine, capacity 100,000 pounds, is to be set up. Near the cattle-pens are corrals for sheep and hogs. The two packing-houses that will soon be completed will be the pride of the company. If the two can be built inside of \$700,000, the managers will be glad, but the estimates call for more than that amount for these two buildings alone. The latest devices of labor-saving machinery will be included in the equipment. Each house will cover an area of about 300x500 feet. Ice machines, lard-tanks, can machines, beef-chilling apparatus, offal driers, fertilizer converters and various other devices, designed to be both dexterous and economical, will be set up in the various departments.

The cattle that ever since the days of the Spanish ranchos have grazed over these hills, have seen these improvements being pushed along with very little interest. That these new packing-houses are going to be fitted to pack and can, and stow away for future use each day, at least 1000 cattle, 2000 sheep and as many hogs, is a fact not calculated to arouse much enthusiasm among the quadrupeds whose pasturage has been invaded. From the buildings a track connecting also with the siding will be run to the bay and out upon a wharf about 2600 feet long, to deep water. It is calculated that at this wharf ships that sail about the world may take aboard the products here to be packed and prepared for the demands of far-away communities.—*Evening Bulletin*.

## THE FIELD.

### Hops in Washington.

The *Washington Farmer* says the crop year of 1890 has been one of surprise as well as of disappointments. Promising at first to be the heaviest on record, the yield was finally cut down to the usual average by the prolonged drouth and attack of vermin combined. Starting out at extremely low prices, the value moved steadily up from 12½ cents per pound for the earlier contracts to 40 cents paid for a few in the bale. Unfortunately for the growers, large blocks of the crop were contracted at comparatively low prices, the bulk of which has gone forward to dealers and consumers and now depresses the open market for the remaining portion of the crop unsold. We estimate the Washington crop yield at 38,000 bales, and which may possibly reach 40,000, of which there are now left about 8000 bales. The Oregon crop yield estimate is now placed at 20,000 bales, of which no more than 3000 bales are left in the State, making a total stock in the two States of 11,000 bales.

### A Large Hop Farm.

The *Washington Farmer* also gives the following description of the famous hop ranch of the Snoqualmie Co. This is the largest hop ranch in the world. It is owned by a company, incorporated, with a capital stock of \$120,000. Over \$200,000 has been expended in improvements. The principal stockholders are: Richard Jeffs of White River, Pres.; Geo. W. Gove, V. Pres. and Manager; H. Dutard of San Francisco, Treas.; G. K. Baxter of Seattle, H. E. Levy of Victoria, B. C. The company began operations here in the spring of 1885. That year they planted 200 acres to hops, and they now have 310 acres of the finest looking hops that mortal eyes ever rested on.

From appearances now, this ranch will harvest this year 3000 bales of hops of 200 pounds each. Buyers generally come to the ranch and contract for the crop. Last year the product sold at eight to nine and a half cents. Hops are now worth 40 cents; and the 600,000 pounds that the ranch will turn out will command at present prices the neat little sum of \$240,000. Capt. Geo. W. Gove, the manager of this immense plantation, says that from his experience, and in fact from the most authentic statistics, the best time to sell hops is at the time of picking, when a great many buyers from different directions are vying with each other. Capt. Gove says that on old and new contracts over 20,000 bales of this year's crop in this State have been contracted, at an average of 14 cents. By "old" contracts is meant those contracts made previous to this year. Some growers contract several years ahead. The Snoqualmie hop ranch is situated in a natural prairie surrounded by a dense forest.

The soil is a deep loam. The Snoqualmie river flows through the hopfields, and in bygone ages, before the barrier of rock over which leaps the great falls was reduced to its present level, the site of this ranch was evidently a lake. The day after our arrival, Capt. Gove hitched up a double buggy team and drove us three miles through the plantation, which extends almost to the new town of South Bend on the east. We viewed the splendid fields and the improvements with delight. We found 15 hophouses, two of which are double and five are triple, making on the whole 27 kilns, each 24 feet square. Twenty sheds are distributed at convenient points on the plantation for shelter of Indian pickers. A dozen houses are occupied all the year by Indian families employed on the premises. On the railroad is a warehouse 60x80 feet, in which the baled hops are stored for shipment. Leading from this warehouse is a nicely turnpiked driveway to the hotel standing on the ranch. This hotel is a three-story building, situated in the midst of the orchard, and surrounded by a charming lawn, handsomely landscaped and adorned with beds of lovely flowers.

### What About Esparcet?

EDITORS PRESS:—Although the PACIFIC RURAL PRESS is brim full of useful information of the kind its patrons are likely to require, yet we are always wanting something more; so I would like to inquire through its columns about "esparcet"—a kind of forage like clover. I have heard that it will grow well on very dry land, needing but little moisture, like cactus and sagebrush, and that it produces an abundance of good feed for stock.

I have a few acres of very fine soil but it lays so it is difficult to irrigate, therefore want to grow something of value on it needing but little moisture. If among your army of readers there are any who can tell me the best thing to grow there I shall be greatly obliged.—C. P. WILCOX, North Yakima, Wash.

Esparcet (*Onobrychis sativa*) has been proclaimed as a dry-land forage plant quite widely and hundreds have planted the seed. It is time now to gather the results of these trials, and we hope every reader who has grown the plant will write us briefly his results and conclusions. Our own observation is that the plant has not proved as valuable as was expected and that we are still in search of an all-around arid-land plant. Let us then hear from all interested readers in answer to our correspondent's points.

THE Mexican Government will grant no more subsidies to roads and is buying up those already granted.



## HORTICULTURE.

## Walnut Soil and Climate.

There is a great diversity of opinion as to soil and water suitable for the profitable culture of the walnut, and almost everywhere that the walnut does well is considered by the growers of that particular locality to be the only section of country where walnut culture is a complete success. The fact is we have a large area from Santa Barbara to San Diego suitable for its cultivation, where the soil and water supply differ greatly in many respects.

In Santa Barbara and Ventura counties are many fine old walnut orchards paying large dividends, where irrigation and the surface stream of water is from 50 to 100 feet from the surface of the ground. I am also credibly informed that there is a very fine and profitable walnut orchard in Ventura county over 26 years old, where it is only four feet to surface water, and none of the trees have ever drowned out from sonr sap or too much water, while Col. Heath of Carpinteria, this last spring, lost some exceedingly fine trees from sonr sap, where the surface water is 30 feet below the top of the ground. This was undoubtedly caused by overflow from the higher lands which lie on the side of his place. I think, by proper drainage facilities, this could be avoided.

The soil of these two counties, where the walnuts are grown, is mostly of a made character from the mountains and very rich in all the qualities which go to make up a desirable spot for the walnut.

The next place where the walnut is successfully grown is in the San Gabriel and Los Nietos valleys in Los Angeles county. There we find splendid orchards growing on a sandy soil where the surface water is from six to twenty feet from the top and irrigation is freely practiced by many, while others have good success in growing the walnut without employing water at all.

The Santa Ana valley, in Orange county, is rapidly coming to the front as a walnut-producing country. Here we have the walnut growing on adobe, heavy clay sediment, light sandy and sandy mixture soil where the water is from four to one hundred feet below the surface. Irrigation is practiced on the dry soils and the amount of water used depends greatly on the character and water-holding qualities of the soil. We had a few trees which were drowned out last winter (an unusually wet season) on lands ten to fifteen feet above surface water. Where they died the land was overflowed from a creek, the water standing there for a month or more.

The famous walnut orchards of Capistrano, in the southern part of this county, are on adobe soils with enough sand washed in to cultivate well. Here the surface water is from six to twenty feet, and irrigation is a decided success, though it is reported that several of the trees were drowned out last winter through overflow.

San Diego county has as yet done little toward the planting of the walnut, although there is plenty of good land there for its successful cultivation.

Trees planted out three years ago near San Luis Rey are now bearing well without irrigation.

The theory that the surface water is too close to the surface or not close enough for successful cultivation is not borne out by the facts. If you have good, rich soil, with surface water situated at any distance from four to one hundred feet, and can keep off the overflow so the water will not stand for weeks around your trees in the spring, or your soil can retain sufficient moisture either by thorough cultivation or irrigation, you can grow the walnut with profit and the best of success.

The walnut is one of the easiest trees to transplant, and can be reset at most any age; indeed, trees have been successfully transplanted at the advanced age of ten years.

Most growers prefer a three-year-old tree to set in orchard, and of the improved soft shell variety. Three years after transplanting, if proper care is taken of the trees, the orchard will be paying from \$100 to \$150 per acre, and will increase at the rate of 50 per cent for a good many years to come.

My orchard is planted 40 feet apart, though 50 feet is preferable by putting an additional tree in the center of every four; this plan will give 32 trees to the acre, and when the center tree gets to crowding its neighbors it can be readily removed. The additional tree will pay for itself many times over in stovewood, besides the hundreds of pounds of nuts it will yield.

The demand for walnuts is the same as that for California oranges—it is getting better every year. There are millions of people in the East who have never eaten a California walnut, and who would rather give five or ten cents more on the pound for the production of California than the best quality of walnut which can be raised in Southern Europe. The improved soft-shell variety, which is now attracting so much attention in the Eastern markets, is the favorite with the Chicago trade, where the bulk of our crop is marketed. The improved soft shell comes into bearing at four years from the seed, and at six years yields a good-paying crop, while the old hard shell or

Madeira nut takes eight or ten years, and at fourteen years does not bear any more than a six-year-old soft shell.—George W. Ford, in *Santa Ana Blade*.

## THE VINEYARD.

## Condition of Southern California Vineyards.

In Expert Dowlen's report for November, he reviews the condition of the vines in all the counties of the Los Angeles district, and finds the outlook quite encouraging, so much so that many of the vineyardists in the worst infected sections are proposing to replant their devastated vineyards. Following is the full text of the report:

Since the last report a number of journeys have been made to the vineyards in the neighboring counties of San Luis Obispo, Santa Barbara, Ventura and Orange, all of which are included in the Los Angeles district.

In San Luis Obispo county viticulture can only be reckoned as one of the smaller industries, though it is very probable that this proportion will be altered considerably in the course of the next two or three years. The greater number of vineyards are small, and vineyardists have hitherto been discouraged by the low prices obtainable for both fruit and wine. In addition to this, the means of transit by rail are limited, but it is probable that this will be remedied in the near future. The varieties generally grown are the Mission, Zinfandel and Muscat. Everywhere the vines seemed to be particularly healthy, there being abundance of wood and foliage, and, where the fruit had not been picked, a full crop of grapes of good quality. The vines are almost entirely free from disease of any kind. Mildew was reported as not giving much trouble. With respect to the Anaheim disease, a few vines were noticed which showed some of the peculiarly marked foliage. Except for this, the vines were apparently in perfect health; but owners reported that similar features had always been noticed upon the vines, in some years hardly showing at all, in others appearing to a greater extent, but never doing any damage. In this county the vines had not suffered from heat as they had farther south. In view of the approaching increased facilities for transport, many people were preparing to set out vines in the coming year, and in all probability there will be within the next two years a great increase in the acreage devoted to viticulture, for the practice of which large areas are apparently well adapted.

In Santa Barbara county, a comparatively small amount of attention appears to be given to viticulture. Here also, low prices and limited means of transport have operated to check the industry; moreover, where the vineyards are within reach of the sea air, as is the case with many of the older vineyards, the fruit produced cannot compete in quality with that raised in more inland districts. The vines, even where they have been quite neglected, had made a vigorous growth and had borne a good crop. No signs of the Anaheim disease were seen; mildew was reported, and in the vineyards near the coast, the foliage was much spotted with the ordinary grape-leaf blight. Farther inland the vines were in better condition, both foliage and canes being much cleaner and brighter.

In Ventura county viticulture takes a more prominent position, though it has by no means received the same amount of attention as other industries. In the Ojai valley the larger and older vineyards are found in the upper valley. The vines were in excellent health and had borne a large crop of fruit. The varieties mostly planted are the Mission, Zinfandel, Black Prince, with smaller lots of Mataro and Trousseau. In one vineyard a number of other varieties of wine grapes are being experimented with. There are also a number of smaller lots of table grapes, Black Morocco, Black Prince and Telame Tokay. In the lower part of the Ojai valley the vines are mostly young, the Muscat being the variety chiefly planted.

At Sespe and the neighborhood, the vines are chiefly of the Muscat variety, the fruit being of very fine quality. At present it is sold both for table use and as raisins. The vines throughout the county were in excellent condition, and in all places a good crop had been produced. Mildew was the only disease reported; no signs of the Anaheim disease were found.

In each of the above three counties the intention was generally expressed of making considerable plantings of vines during the coming year, raisin grapes receiving more attention than wine grapes.

In Orange county the districts around Santa Ana, Anaheim and Orange have been visited. Here, too, there is an improvement in the condition of the vines. Here and there may be found vines which have lived through all the attacks of the Anaheim disease. In one vineyard some seventy acres of vines have been saved. These do not show so much disease as they did last year, and in addition, they yielded this year a large crop of fruit of good quality, both of raisin and wine grapes. Another instance of survival is where a number of vines of eastern varieties had been trained to form an arbor. These vines became diseased, and by the end of the summer of last year they seemed to be almost dead, having produced but a small amount of growth and no fruit. The owner,

however, did not like to cut them down, and was rewarded this year by seeing his vines again putting out good growth and producing fruit, the vines now showing little if any disease.

In some places new vineyards have been set out. Most of these are of small area, though on one property 56 acres have been set out. The oldest of these new vines are three years of age; the youngest were set out this year. Nearly all of these new vines are Muscat. Besides these a few Mission vines have been planted. The older vines show, in places, a little disease, but by far the greater proportion of those set out this year show no disease. Some plots are entirely free; they are apparently in good health, having made a fair amount of growth and the canes have ripened properly. In common with all the vines of this section, they show the effects of the extra heat and dryness of the past season, and they had also suffered from the effects of a hot wind storm which visited the locality a few weeks since.

From the above statements it will be seen that in Orange county the Anaheim disease is evidently not so virulent as in past years, and that, though the trouble has by no means passed away, the outlook for viticulture is much more hopeful than it was 12 months ago, and also that there is as yet no reason for altering the opinion expressed in the earlier reports of this year that there has been an improvement in the condition of the vines throughout the infected areas. The improvement is such that in Orange county, where the Anaheim disease has done most damage, and where, in consequence, the greatest precaution would be exercised, many people are looking forward to again setting out vines during the coming season.

ETHELBERT DOWLEN.

Dec. 1 1890.

## Grafting the Grape.

Having practiced grafting the vine since 1852, and always with an eye to the easiest and most successful methods, I have naturally picked up some experience, and will sum up the gist of it for the benefit of those readers who may want to practice it, either for regrafting better varieties or grafting on resistant stocks.

Grafting in the house or shop, which is successfully done with the apple and other fruits, and then planting in nursery rows in spring, I have not found successful, as but few of them grew, and even those few did not make a satisfactory growth. I know that it is still upheld and followed by some, but I cannot recommend it. I have always had the best and most uniform success in the vineyard on vines strong enough to hold the graft firmly, and when the sap was in rapid motion, say in our climate in April and May. Of course the scions should be kept dormant, in a cool, shady place, buried in sand or light soil to their full length, with the cuttings reversed, that is, the upper buds downward and the lower buds up. The object in this is to prevent the upper buds from starting too early, as it is from these we expect the new growth on the graft. It makes no difference, in my experience, how much the young growth on the stock has started already, although after May the season for the growth of the graft will be so much shorter and it would be difficult to keep the scion in a dormant state.

## The Best Stocks.

Of course I refer to resistants only, in discussing this question, although where the phylloxera has not appeared yet it may be advisable to graft inferior varieties of the vinifera with choicer ones. I will return to the subject later on, when discussing varieties.

The best resistant stock, all things considered, I believe for all moderately deep, rich soils, to be the Riparia, or sand or river grape, a native of nearly all the Middle States—Missouri, Illinois, Kansas, Nebraska, etc.—where it is found on all the larger streams. It propagates readily from cuttings, is a strong but rather thin, straggling grower, unites readily with the graft and is entirely resistant, as shown by an experience of over ten years in Sonoma county, where the vineyards of Messrs. Dressel and Gundlach had been entirely devastated by phylloxera and were replanted with Riparia. They are now in a flourishing condition again, and produce fine crops of superior grapes which were grafted on them. For dry, calcareous soils, I should prefer some varieties of the Aestivalis, or Summer grape of the East. The Lenoir has given good satisfaction generally, but is somewhat more difficult to propagate from cuttings than Riparia.

In my location (Chiles Valley) I prefer the Ruellander and Louisiana, which grow from cuttings very easily, make a strong, stocky vine, and take the graft readily. I believe, however, that all of the Aestivalis are more particular about the soil, and will only flourish in perfection where they find certain ingredients. On this point we have yet a great deal to learn.

The Riparias are more apt to root at the surface, as they make roots at every joint or node, which grow horizontally, while the Aestivalis make but few, but very strong roots from the lower buds which grow downward, and will find moisture at a greater depth. The Herbemont is also a good stock in certain localities, while in others it has proved unsuccessful. All of the Aestivalis varieties make a ready junction with the graft, and do not snicker so much as the Riparia, making also stronger and more stocky vines.

The Rupestris, or bush grape of Texas, Arkansas and S. W. Missouri was supposed at one

time to make the best stock for dry hillsides. It has proved a disappointment, as it suckers terribly, and also does not unite readily with the scions of the vinifera. The Californica, our native wild vine, is not fully resistant, although highly lauded a few years ago. Its roots are too soft, and it will hardly grow on dry soils.

Having thus discussed the question of stocks, I will defer the description of the *modus operandi* and of the best varieties to be used for scions, for another issue.—George Husmann, in *Napa Register*.

## The Future of the Grape Interest.

EDITORS PRESS:—I have read with interest the article in your issue of Dec. 6th, by Nelson Ward, also Mr. Wehner's article referred to by Mr. Ward. In this valley—San Bernardino—the planting of the grape for wine-making has about all been discontinued, with the exception of those who are directly interested in the manufacture of wine, and even they are extending their planting but moderately. Those who had the Mission here with few exceptions dried them the past season, as the winery only offered \$11 per ton delivered. Second crop Muscat found their way in part to the winery at \$10 per ton, prices which scarcely more than paid for the picking. To predict what will be the future of the wine industry, of course, is out of the question, but to take present prices as a criterion, when we consider the extreme youth of the wine industry and the wine-grape production, surely it does not look very encouraging, and as Mr. Ward aptly says, when we take into consideration the amount of temperance education going on in the county among the youth, the increasing numbers of clenched fists and earnest, stern faces that are being set against the drink traffic—to say these movements will not have any perceptible effect on the use of wines seems to me very short-sighted. I have watched the temperance movement throughout the county with a good deal of interest for the past 30 years. We have all seen first the one and then the other prop give way before the cold logic of facts produced by the advocates of temperance. We have watched first with curiosity then with admiration, mingled with pride, the solid onward march of the continually increasing columns of the W. C. T. U., hurrying and trampling under foot obstacles that seemed but yesterday unsmountable, besieging State and National legislation from prohibitory laws, aiming always a deadly volley hundreds of thousands strong, in one direction, at the overthrow of the drink evil. We have watched the rise and fall of the Prohibition vote, steering its course seemingly through the unsmountable breakers, with eyes all looking in one direction—the overthrow of the saloon. We watch the declaration of principles which find their way into the platforms of the different political organizations as workingmen's and Farmers' Alliance, condemning the traffic in liquors and laying at its door in part the cause of their depression. The pulpit, which has until lately been so silent on the question from a political standpoint, begins to thunder its destruction. The old political parties are so nearly cornered on the subject that to lose the saloon influence means death. With all of these signs so plainly passing before our eyes each hour, and increasing in magnitude like a mammoth snowslide, and then not take warning, means we are not good observers of the signs of the times.

I, like Mr. Ward, can't help but say it seems to me the wisest thing to do is to plant a grape that can be dried, canned or put to some other use. There probably is no question but the markets of this county can be so filled with raisins as to materially reduce the profits; still, as a rule, that has not in the past been the result with a commodity that the people demand. What we seem to need now for a raisin grape is one that will combine the good qualities of the Muscat and Seedless Sultana, of the size of the Muscat and seedless like the Sultana. I think if some of our intelligent horticulturists will cross the one with the other, say the Muscat with the Sultana, carefully protecting the bunches so fertilized so as to exclude the bees, the seedling from these fertilized grapes would bring about most happy results. The party that can produce a grape filling the above requisites, and as early as the Sultana and having all the good qualities of that variety, would deserve a bonanza and I believe would find one. Could the craze in intoxicants be wiped out and the rivers of wealth turned toward the purchase of the necessities of life, this and the preceding generation would find it a difficult matter to overstock the markets with the raisin or any other fruit products, which would mean paying rates for healthy necessities and luxuries that are not harmful. I. C. WOOD.

Ontario, Cal.

RAILROAD BUILDING OF THE YEAR.—Statistics compiled by the *Railway Age* show the construction during 1890 to be about 6050 miles, as against 5200 miles last year. Over 2000 miles of road under construction are in the Southern States and over 1000 in the Northwestern States. The Northwestern shows 1057 miles, due largely to active building operations of the Northern Pacific and great Northern roads.

THE number of winter passengers for Europe is something unprecedented. A few years ago the steamers crossed with barely a handful of first-class passengers, but this winter they have been running with nearly full lists.



## PATRONS OF HUSBANDRY.

In our Rural Press Official Grange Edition, issued every week, will be found additional matter from this and other jurisdictions, of interest and importance to Patrons. Any subscriber who wishes can change free to that edition.

## Begin the Year Well.

Patrons, be sure to turn out to the initial meeting of the new year. Encourage your new officers-elect with your presence, kindly greeting and assurances of your support. Try and start some new methods for making your meetings more interesting, agreeable and profitable and to all—old and young. At each meeting arrange some exercises to make the next attractive and worth coming to.

If storms or other hindrances have prevented election of officers at the proper date, let it discourage none. In such cases, each member should feel the necessity of greater individual responsibility and effort until a meeting is secured and your Grange brought into line for the best year's service for a long time.

There is time yet for the seed sown years ago to fruit. In many parts of the Union it is a well-acknowledged fact that "hayseed is risin'." Shall California be behind in the race?

Surely there is much to encourage the brothers and sisters of California to stick closer and strike harder for their cause than ever before.

For farmers outside the gates the new year is a good time to hand in their petitions to join the Grange army of workers for the advancement of the rights and social, educational and material interests of agriculturists and their families. No safer associations can be formed for the children of Matrons and Husbandmen of our rural districts. Try it!

## Farmers' Institute Held at Corvallis, Oregon.

EDITORS PRESS:—The Institute, held under the auspices of Corvallis Grange, at Corvallis, Benton Co., Oregon, was a marked success from first to last.

The Institute opened with an evening session on the 15th of December, and closed on the evening of the 19th.

At the first session fully two hundred and fifty people were present, and a larger number on the following evening. The day sessions were not so largely attended, yet there were more farmers present, and a lively interest manifested in the discussions. There was not time enough for as much discussion as would have been profitable. The papers were quite lengthy but not tiresome in the least, as shown by the interest manifested in the audience. One or two papers at most, upon topics of practical interest to the farmers, are enough for each session; this gives more time for discussion, which brings out the most important features of the subject.

The question-box was the means of bringing several very interesting and important subjects up for discussion. Among other questions asked were the following: Can tile be used for irrigating purposes? Will it pay to build sheds for manure? The balance of argument was in favor of some protection for the manure-pile. Another question which was discussed with much interest was one asking if it would be wise legislation to appropriate \$250,000 to defray expenses of an Oregon exhibit at the Columbian Exposition. Every one who spoke upon this subject thought this too much; and some went so far as to say \$10,000 sufficient. These are only a few of the most important questions discussed, but they are enough to show that the question-box becomes one of the most interesting features of an Institute. The same feature will work first rate in a Grange.

Everything put on the program was carried out, except the subject of "Breeding Cattle." The essayist was not present.

Aside from those who came a distance of 10 or 12 miles to attend the Institute, were Bros. Boise and Voorhees of Marion county; also Hon. T. T. Geer, who addressed the Institute on Friday evening.

The addresses and papers were full of instruction and interest throughout, hence I would not undertake to give a synopsis of them had I the power to do them justice. It would fill several columns if only the most important points were mentioned.

The exhibit of vegetables, dried and canned fruits, fresh fruits, grains and flowers attracted much attention. One of the most interesting features of the exhibit was a display of the practice sewing done by the girls in the domestic economy course at the college.

A large number participated in the picnic dinner on Friday at the Grange hall, evincing that this feature of the Institute was not an entire failure, as some of our less enthusiastic brothers predicted.

The Institute closed with a feeling that all had enjoyed the meetings, and that much had been gained both socially and intellectually. It is safe to say, I think, that in attendance at least, this Institute has been as successful as any held in the State. H. T. FRENCH.

Corvallis, Dec. 22, 1890.

THE meetings of the Executive and other committees called for December 31st, we hope will be well attended, good plans devised and the Patrons of the State led on to important and successful work.

## The Master's Desk.

R. W. DAVIS, W. M. S. G. OF CALIFORNIA.

## Why not Join

An Order that in politics is always non-partisan, in religion non-sectarian; in education always progressive; in morals unsurpassed; in sickness a constant friend; in all things progressive and in nothing sectional?

The Grange believes in equality before the law; believes in restraining the strong and in defending the weak. It believes in distributing the burdens of Government justly, and that none but capable and honest men should hold public office. The Grange is the oldest *Agricultural Secret Order*, and as such, is entitled to respect and veneration. We are all taught to respect age. The Grange asks farmers to come and affiliate with those who are ready and willing to help them. Come to the Order that will assist you mentally, morally, politically, financially, socially, and in a thousand ways make your life and your home more cheerful than they would otherwise be. The year 1891 is sure to mark an epoch in the history of soil-tillers. Every farmer and his family ought to come to the front and join in the financial, legislative, political and mental contests that are soon to be fought. Every one to his arms now. Farmers, help yourselves, if you would have others help you!

How many subordinate Granges have a Seal? Evidently a great many Secretaries forget to use the seal. With the new year, begin the use of the seal on every communication that comes from your Grange. Don't send any petition or resolution to your member of the State Legislature, or to your Representative in Congress without first affixing the Seal. Remember the Seal and seal the sealed communication before you stamp the foot or the envelope.

With the new year comes the new word. Pay dues and then you will get your due—the annual word for 1891.

Are you good at guessing? Then guess the A. W.

No motion should be considered, or stated by the Worthy Master, unless the mover rises and addresses the Chair. This law ought to be strictly enforced.

The courtesy of the Chair may at any and all times be extended to a Past Master or visiting Master. Do you do so in your Grange? If not, why not?

The Grange believes that political parties are for the people and the people are not, necessarily, for the party. The people may own parties, but political parties do not yet own the people.

By the time these lines are read, the new officers of State and county will have been installed. Let us watch, with eagle eye, to see how many farmers are appointed to positions. California politicians cannot afford to ignore the farmer vote. If they do, the day will come when something may be heard to—come from above—"drap."

Watch, by day and night, the vote of your Senator and your Assemblyman. The Legislature soon convenes. Every man will have a chance to do something—at least to vote—for the farmers. If your representative fails, note that fact and let him have a lasting vacation as soon as the session closes. Do it sure!

If you will reorganize a dormant Grange the National Grange will pay you \$2.50 and the California State Grange will add materially to the sum. For further particulars, "ask and ye shall receive, seek and ye shall find."

"No Grange, if true to its obligations, can discuss partisan or sectarian questions, nor call political conventions, nor nominate candidates, nor even discuss their merits in its meetings." (Grange Declaration of Purposes.)

"Yet the principles we teach underlie all true politics, all true statesmanship, and if properly carried out, will tend to purify the whole political atmosphere of our country. For we seek the greatest good of all." (Declaration of Purposes.)

The study of politics (which is but another name for the science of Government) is of itself all right. It is the duty of every one to give the subject much thought. But the practice of politicians is quite another thing. Keep company with the first named, but beware of the last named.

Has anybody heard of a farmer being appointed to office? The papers of late have given the names of many appointees who are to take office Jan. 5, 1891. Who has seen the name of any farmer in the list? Is it possible no farmer in California is competent? Or is no one willing? Or, to the point, has no one been asked?

Do you know that certain people refuse to read an article or to listen to a speaker unless the opinions expressed coincide exactly with their opinions? A greater mistake could hardly be made. You never know how strong a case is till you get both sides of it. Therefore we

can well afford to listen to any one who talks good, solid sense, even though we may not agree with him. Any subject that is not worth investigation better be ignored entirely. Get the truth. To do that, one must work. It will pay you every time to get at the "other side," as well as your own side of a proposition.

The following very pleasing letter, from a gentleman not a member of the Grange, was recently received. It shows the respect the Grange has won (from one very competent to judge of such things) for its steady, honest, progressive, yet conservative, course. The Grange is not parading all or many of its virtues before the public. But it is going straight along, growing, elevating its members, and helping, in a quiet but successful way, to purify politics and educate and assist the farmer.

Dear Sir: I acknowledge, with thanks, the receipt of Journal of Proceedings of the State Grange of Patrons of Husbandry. I beg leave to say, what every impartial man must admit, the proceedings are characteristic of high mental training, and all through is manifest a desire to improve and elevate the condition of man; to enlighten his mind; to imbue him with proper conceptions of his duties, his capabilities and his opportunities; to strengthen the feeble; uphold the weak; and to encourage the despondent. May its sun never pale and its shadow never be less is the wish of, respectfully yours, Forestville, Dec. 23. GEO. E. JEWETT.

## Bro. Cressey in New Hampshire.

EDITORS PRESS:—Bro. C. J. Cressey of San Jose, Treasurer of the California State Grange, was in attendance at the annual session of the New Hampshire State Grange, on Dec. 17th, and gave a practical and very earnest address. He came direct from the Maine State session, and although sick and weak, he appeared before the Patrons of New Hampshire, after an absence of 45 years, and was warmly received and his address was greeted with storms of applause. He alluded to the great accomplishments of the Order in the Golden State and warmly complimented the Patrons of the Granite State for their achievements.

The last annual exhibition of the N. H. Grange Fair Association was eminently successful, notwithstanding it was held in the middle of the longest storm of which the present generation has any knowledge. All bills will be paid in full and a good sum left in the treasury.

The N. H. Grange Fire Insurance Company is increasing its business and has thus far been very fortunate in not having any large losses.

The annual session of the State Grange at Manchester, now just closed, was one of the most interesting and profitable in the history of the Order. The attendance has annually been increasing and this year was about 20 per cent greater than last year. The interest was unabated and the reports of the officers and committees were excellent. Fraternally yours, Manchester, N. H. GEO. R. DRAKE.

[The above letter from the Secretary of the New Hampshire State Grange will be gladly read by the members of the Grange on the Pacific Slope. Separated as we are by the entire width of the United States, we are glad to hear of the growth and prosperity of the Order in the old White Mountain State and the other New England States. We know that every Patron will join us in our thanks to Bro. Drake for his subscription to the RURAL PRESS and kindness in writing, and to the different Granges and Patrons East for their kindness to our Worthy Treasurer, Bro. Cressey, for "in him" we are all received.—EDS.]

## A District Union Installation.

There will be a joint installation of Grange officers belonging to the sixth district at Watsonville, Jan. 3, 1891. Past Master I. C. Steele and District Deputy will do the honors of the occasion. All officers and members of the sixth district are particularly invited to be present, and a cordial invitation extended to other Patrons in the State.

TO ALL GRANGES about to install officers, the RURAL sends a hearty greeting. May all elect be present in strength for a year of excellent service, and success and happiness finally crown their sincere efforts. Let every brother and sister strive to see who can best assist their chosen servants to increase the membership and good standing of their Grange.

ALL PATRONS are invited to the installation of Eden and Temescal Grange officers, at Old Fellows' hall, Oakland, Jan. 31, at 10 A. M. Worthy Master Davis will be present, and we hope also a good number of other able Grange speakers, and visiting brothers and sisters. Bros. Amos Adams and Rev. A. T. Perkins are the W. M.'s elect.

EIGHTEEN HUNDRED AND NINETY-ONE finds the Grange in California in harmony, with greater numbers and more funds now than at the beginning of any year within a decade. It should make good and substantial advancement within the 12 months. It is for all members unitedly to determine what that progress shall be.

## Appropriations.

During this, the short session of Congress, the most important work that is expected to be done is that of passing the appropriation bills, by which the different departments of the Government may be able to secure the sinews of war; and immediately following, the estimates for 1891, as contained in the bills to be acted on within the coming two months.

To keep them in good running order, I have been looking up some of the figures, past, present and prospective, and from a farmers' and Patrons' standpoint I find some of them full of interest, containing some pointers that should set farmers to thinking and acting.

We now have eight regular departments of the Government, the heads of which form the President's Cabinet. To these may be added the legislative, meaning Congress, all of which are supported by the appropriations made from year to year. I will give the figures of the appropriations made for each for 1890:

	1890.	1891
State Department.....	\$ 2,477,636	\$ 1,981,435
Treasury.....	180,661,369	1 7,030,989
War.....	38,608,626	47,052,073
Navy.....	24,347,220	26,440,159
Interior.....	112,784,818	117,054,420
Postoffice.....	2,072,229	9,119,131
Dept. of Justice.....	4,816,002	4,800,700
Dept. of Agriculture.....	1,089,037	1,288,430
Legislative (Congress).....	6,358,042	6,420,583

There is plenty of proof for study and thought in these figures. Over seventy times as much spent in the army and navy as for agriculture at a time when we are at peace with all the world, so strong within ourselves that no nation on earth dare attack us. Six times as much spent for the months Congress is in session as for the great industry which is at the foundation of all our greatness, and that feeds and pays for running all the machinery of Government, manufactures and commerce. Study the figures carefully, and see if you don't come to think that in this, as in matters of taxation, finance and tariff, we should still insist upon "equality before the law."—Farmers' Friend.

## Sensible Talk, Anyway.

The inaugural message of Gov. Tillman of South Carolina covers considerable ground. It is the message of a man of the people who has studied the needs of the people. He says in reference to education that the Military School should be wiped out and its appropriation used for a girls' school. This girls' school should teach useful things. There would be no place in it for oil paintings and the ologies; but there would be a large place for cooking and other branches of housekeeping, and a place for telegraphy, phonography and other branches which fit girls to earn their own living. He proposes to put a stop to lynch law if he has to remove every sheriff in the State. He is going to have speedy trials, and to have one fair trial end a case. That trials may be fair, he will do away with professional juries and drunken justices. To make these reforms possible, there must be a new Constitution. The present one, he says, was framed by "carpet-bag vampires and baser native traitors." He will have a Constitution under which the two races can live together in peace. South Carolina has for many years been ruled by the aristocrats, mostly of the land-owning class. Tillman is a man of the people, who two years ago was an every-day farmer. He is a man of force and character, and with four-fifths of the voters at his back may lift the State out of the ancient rut it has run in so long.—S. F. Call

## A Gala Day in Prospect.

EDITORS PRESS:—We expect to have a grand time Installation Day, Jan. 3. We have invited all the Granges in our district to join us in a general installation in our hall at Watsonville, and we hope they will all accept. We are going to depart from our old-time custom of having our Harvest Feast in our hall, and are going to have it in a hotel kept by one of our brothers, Conrad Jensen. We are going to march down the street in a body, with our regalia on, and our banners flying to wooing breezes of the broad Pacific.

We are getting a number of proposals for membership, and all indications are good for another prosperous year for Watsonville Grange.

Wishing and hoping that you and many others of the State officers may be with us on Jan. 3, 1891, I remain,

Yours fraternally,  
GEORGE E. ABBE,  
Sec'y Watsonville Grange.

WATSONVILLE will no doubt have a glorious reunion on Jan. 3d—the Granges in San Benito, Santa Cruz, and the northern part of Monterey county being invited to join in a union installation of officers. Past Master I. C. Steele will officiate on the occasion. He can always be depended upon for an interesting and elevating address. His noble and generous acts for the Good of the Order are an inspiration for love and labor for its welfare and progress. It seems entirely fitting that Bro. A. P. Roache should again assume the gavel in his own Grange, for which he has done so much and so well.



## FARMERS' ALLIANCE.

SUBSCRIBERS who are members of the Farmers' Alliance can have their names changed to the Grange Edition of the RURAL PRESS free, much to their advantage.

## Alliance and Institute.

## Two Important Meetings to Be Held at Hanford.

Hanford will enter upon the new year with two important conventions, and both should be well attended.

The first of these is the Farmers' Alliance, which will convene at 10 A. M. on Wednesday, Jan. 7, 1891, and every Alliance in the county is requested and urged to send delegates, and the Register hopes that every Alliance in the county will do so. It is probably too late to begin work for this Legislature to consider, but it is not too early to begin movements for the people and Legislature to consider two years hence. Nothing can be gained in politics except through organization and determined effort. The farmers of California can govern California if they will. Will they?

On Thursday, Jan. 8th, at 1 P. M., there will be held, also at Hanford, a session of the Farmers' Institute of Tulare county, and we hope that this, too, will be well attended. We are looking forward to a time when Farmers' Institutes shall be held all over California, and not only held, but well attended. These Institutes are especially needful in a county like Tulare that is just entering upon a business new to most of us and which requires a high degree of intelligence and skill to make successful.

The subject for discussion will be, "What, where and how to plant," a continuation of the discussion begun at the Tulare meeting.

This subject is timely and important. Everybody invited to attend the meeting and everybody should go.—*Tulare Register*.

[We do not see why the present Legislature should not help the Farmers' Institute, but many reasons for fairly establishing the system. EDS. PRESS.]

## An Encouraging Outlook.

John S. Dore, member of the State Alliance Executive Committee, writes the following inspiring letter to the Fresno Republican:

*Editor Republican:* The Farmers' Alliance has been thoroughly organized in Fresno county for several months. Sub-Alliances were formed early last summer in West Park, Walnut, Fowler, Selma, Madera, Chicago, Lone Star, Iowa, Franklin, River Bend and Reedley, and the Fresno County Alliance was fully organized, elected officers and received its charter from the National Alliance nearly six months ago.

It had three representatives in the first annual session of the State Alliance in San Jose last November. At that time there were already 14 counties organized in this State, with a membership of nearly 8000. Since the State meeting several counties and many sub-Alliances have been organized, and the work is steadily going forward, there being to-day over 10,000 members in the State.

Mr. J. L. Gilbert of Reedley is the State Lecturer and has the authority to organize Alliances anywhere in the State. I would refer all who may be desirous of having Alliances organized, especially in any part of Fresno county, to Mr. Gilbert at Reedley, or Mr. J. W. Webb of Fresno, who is also duly commissioned as an organizer.

The meeting of the County Alliance at Fowler on Friday, Jan. 2, 1891, has several important matters to consider, among which will be the selection of some paper as an official organ of the Alliance in Fresno county, and the appointment of a business agent. A large attendance at that meeting is expected and desired.

The meeting of the Executive Committee of the State Alliance at San Francisco on the 12th of January next is for the purpose of auditing accounts, and such routine work as properly belongs to such a committee. The social and business features of the Farmers' Alliance are not less important than the influence that may be exerted upon the action of political parties where the farmers' interests are in jeopardy.

So far as I am concerned, I want the true aim and work of the Farmers' Alliance understood, and then it will stand or fall on its merits. Yours respectfully, JOHN S. DORE, West Park, Dec. 22, 1890.

If Jay Gould had not owned the wires, and through them controlled the Associated Press, and through the Associated Press controlled the daily papers, he could not have so readily used his mighty wealth to hurt nearly everybody else in America. But for the matter of that, were it not for his grip on the wires and the press, Jay Gould and a few others of his sort would not own half so much wealth. Do you see it?—*Texas Stockman*.

THE FARMERS' CLUB.—The Lakeport Farmers' Club was organized last Saturday. The following were the officers elected: R. D. Merritt, President; Frank W. Gibson, Vice-President; Thomas Porteus, Secretary; Wm. Gessner, Treasurer. The next regular meeting will be held in the office of McCraney & Son, on Saturday, Jan. 3, 1891, at 2 P. M.—*Lake Co. Avalanche*.

## Thirty Million Dollars.

Jay Gould made \$30,000,000 the other day. It is spoken of by the press in about the same way as it would speak of a man selling a house and making \$500. Jay Gould made thirty millions of dollars the other day! How? While making it, did he contribute anything to the wealth and happiness of the people? If the farmer succeeds in making any profit at all, he at the same time does something that is valuable to the community. If the manufacturer makes even an unreasonable profit, he helps to make others rich and more comfortable. But is there one man, woman or child on the face of the earth, outside of the Gould family, who has been benefited one iota by Mr. Gould's accumulation of another \$30,000,000? Mr. Gould made \$30,000,000 the other day! What did he do that was so immensely profitable? Well, he did this:

Concluding that he would like to possess himself of certain railroad properties, he went into Wall street with his peculiar methods and ran down the price of stocks, which in many cases were held by men and women who believed that they were good investments because the roads in question were doing a good business, and because there was no good reason why they should not continue to do a good business. They had invested their money in these stocks as a legitimate business transaction. Gould wanted the stock; he wanted it at a low figure, and so with his immense fortune he began to depress the price. In plain, unvarnished language, Jay Gould sought to possess himself of property to which he had no more moral right than the pickpocket has to the pocketbook and its contents which he has taken from the pocket of his victim. When he had succeeded in getting the price down as low as he wanted it, he bought the stock.

Jay Gould made \$30,000,000 the other day; and that is the way he made it. It is not so very difficult to make money by such a method. It principally requires gall and an easy conscience. Other men have made a good deal of money from time to time. A New York bank cashier made a few hundred thousand dollars the other day. It was easy. He simply took the money belonging to other people and went to Canada. Young Ward, of Grant & Ward notoriety, made a large sum of money the other day. He robbed Gen. Grant and everybody else with whom he came in contact. Harper made a big profit the other day, but every cent he made was a forced loan from somebody else.

Old Shylock is regarded with contempt simply because he wanted his pound of flesh. But the bond gave it to him. His debtor made a contract. There is no contract to warrant Jay Gould in whetting his knife for the purpose of carving his victim. He simply strolls forth and lays his hands on what he wants; and this sleek, cunning, sudacious plunderer, with one hundred millions of other people's money in his possession, has been permitted to go unwhipped of justice for all these years. It seems almost incredible; it would appear to be unimpeachable evidence of the utter stupidity and idiocy of this American people; and it is unquestionable evidence of the fact that well-clothed, brazen dishonesty passes as the spirit of enterprise in this country.

And now it is further announced that the dark conspirator against the people means to form a railroad trust, through which to rob the people perpetually. He means, if possible, to do with the railroads as he has done with the telegraph, make them a weapon for the brigand to use. Will the people stand it? We do not believe it, and if the government permits this man to go on with the accomplishment of his designs, it will find that there will be a much larger political rumpus in this country than the McKinley bill is supposed to have caused.—*Western Rural*.

## Tax the Net Value.

The whole trend of public opinion is in the direction of levying taxes only on what a man is really worth, and not what he seems to be. There is no question whatever that this is the just and equitable method, and if some plan that is certainly feasible shall be evolved, we do not doubt that legislation will soon be enacted to put the theory into practice.

"Many of our farms are heavily mortgaged, and it is gross injustice to collect a tax on the full valuation of property when some rapacious money-lender holds a claim against it for half or two-thirds of its worth. Clearly such claim ought to be deducted from the valuation of the realty, and the mortgage itself he made to bear its share of the burden of taxation. And further, there is great injustice in the fact that hidden property may escape all assessment. Our tax laws discriminate against the farmer, bringing him to account for possessing property which he cannot put into bank vaults, and allowing the bondholder, the speculator and stock gambler to secrete their wealth beyond the reach of the tax-collector. Will either of the chief political parties of this nation, having as they do heavy capitalists for their leaders, ever lift these burdens? To look for such a thing would be to expect the impossible."

Thus speaks the *Rural New Yorker* on this subject, and it but echoes the universal sentiment of the agricultural press of the country. But we may safely look for such a thing if farmers continue to acquire and wield political

influence. It will take long and diligent study to formulate and put into effect tax laws which will relieve the farmer of the disadvantages under which he now suffers by shifting from his shoulders a portion of the burden that belongs to others. But when once all are aroused to the necessity of it, it will be done.—*Journal of Agriculture*.

FARMERS' ALLIANCE.—P. T. Durfy of Monte Vista, who was a delegate to the Farmers' Alliance meeting at San Jose, thinks the future of the organization depends mostly on maintaining its purity of elements and of purpose. One of the great troubles is to keep the membership confined strictly to farmers, to those who are directly interested in the cultivation of the soil in some shape. The great success of the organization is attracting attention, and all sorts of combinations seem anxious to get into the new Order. Many labor organizations are coming to the door to make inquiries as to terms of affiliation, and the Nationalists are asking for direct admission. While the labor people are practical, their interests are not by any means identical with those of the farmers, and the Nationalists are mostly theorists. To let in all sorts of people means to complicate the aims and workings of the organization. Antagonisms and divisions, misunderstandings and strife will ensue. As it is desirable to keep the membership free from entangling alliances, so is it to preserve the Order from the interferences of the old political parties.—*Santa Rosa Democrat*.

## Arizona Notes.

EDITORS PRESS:—'Tis time to write the RURAL a line. Twice lately I penned quite lengthily to the RURAL, but on reading over after it had gotten cold, fearing an attack of land agents, I hacked off. I have not forgotten till yet being published as a "hired liar" in the interests of Northern California, when 17 years ago I wrote up Southern California.

Our favored portion of Arizona is weathering the surfeit of land speculators slowly. For three years have these parasites sat on our facilities, and time and interest and taxes have shaken their firm grip a little.

Some 15 families from the East have bought in and around Tempe, and will plant out fruit trees and vineyards on land that heretofore has been devoted to alfalfa and bronco and steer.

Since the silver legislation several of our stagnant mines have begun operations, which gives our town of Tempe new life.

The old-time jerk liner, with his long string of worn wagons and mules, is busy about our railroad depot.

Jake and Joe have lately stumbled on to a Mr. to their names since they have sold out their mine, and now have a fast bank account and own the cottage down on the avenue.

Our two English boys, Dick and Sam, have struck it rich out in the Escaton mountains, and so they have no time to prune the vine this winter, so some one else can get their former contracts while they attend to another calling, superinduced by the Silver bill passed by our late Congress.

While our enterprising people have been busy in our various lines of trade and speculation, a heathen Chinese came in above our town and offered \$5 per acre rent for a certain piece of alfalfa of 20 acres. He had a terrible time to plow up the alfalfa, but finally whipped the fight, planted to potatoes and in November was offered \$100 per acre for the crop in the ground before digging, but John's almond eye couldn't see it. Well, who wants to imitate the heathen? He has no trotting horses, nor does he take an active part in party politics, nor does he run a long bill at the grocery store as we do and pay up with beef at a cent and a half, and ship over the railroad at fancy prices per car.

The weather is exceptionally fine, so much so that if it runs along in this style for two weeks, the busy bee will be working on the willow and maybe the peach-bloom. On an average, Arizona is at par, or a little above. Tempe has quite a lot of tourists sojourning for the week with us, and all things are in shape to make an impression. GEO. KAY MILLER, Tempe, Arizona.

## Our Public Schools.

EDITORS PRESS:—I mail you a copy of the Fourteenth Biennial Report of the Superintendent of Public Instruction. An examination of the statistics will show that the increase in the number of census children in the State during the past two years was 10,382. The increase in the average number belonging to the public schools for the same time was 15,714.

The increase in the daily average attendance was 14,362, thus showing that the daily average attendance was increased by 3980 more than the total increase in the census rolls for the same time.

During the past two years 381 new school-houses have been erected, the total number in the State now being 3121, of which 115 are of brick. Increase in number of teachers, 496; increase in number of teachers graduates from Normal schools, 328; increase in number of volumes in school libraries, 77,050; increase in number visits by county superintendents, 831; increase in number of teachers attending institutes, 631; increase in number of school visits

by trustees, 3930; increase in number of school visits by parents and friends, 32,116; increase in value of school property, \$3,060,363; total value of school property in the State, \$13,627,143.

In retiring from office, I desire to express my sincere thanks to you and the public press of the State generally for the cordial courtesies which you have extended to me during the past four years and the encouraging, friendly helpfulness which you have given to all engaged in promoting the interests of the public schools.

IRA G. HOITR,  
Supt. Public Instruction.

## ENTOMOLOGICAL

## Insect Pests in Ventura County.

EDITORS PRESS:—The Horticultural Association of Ventura county met at Union hall, Ventura, Saturday, December 13th. The convention organized with N. W. Blanchard of Santa Paula, Chairman, and M. E. Isham, Secretary. Messrs. Sharp, Hill, Prince, Rice and Decker were chosen Business Committee by Chairman Blanchard, who then opened the convention by a few pithy remarks about the object of the meeting and the necessity of taking concerted action against insect pests which are already in the county. He thought something should be done to prohibit the bringing into Ventura county, in future, pests from other portions of the State. It has been demonstrated that the Australian lady-bug cleans out white scale effectually. Mr. B. considered the red scale the next worst pest here.

Near Santa Paula, in the orchard of W. Easley, last season Mr. B. found a few codlin moths. He thinks they came from fruit imported from the East. As this pest is supposed to be gotten rid of if the season's fruit could be destroyed, a discussion was entered into by the convention as to the feasibility of purchasing fruit where this moth has been found and destroying the same, as it is not yet widespread.

In Mr. Hodson's orchard near Ventura can be found a few San Jose scale—the worst scale which infests our deciduous fruit trees. This scale is pretty well distributed throughout the county, not in great numbers, but in the different orchards of the county, and we have got to exterminate or fight it. Mr. Blanchard stated that it would be worth hundreds of thousands of dollars to us if it could be gotten rid of.

Mr. Rice of Santa Ana considers San Jose scale the most important thing to look after in the county, as it affects fruit as well as trees. Thinks there is no orchard six years old here but what is infested with this scale. He has found Red scale at the Ojai.

Mr. Sharp of Saticoy said his experience with pests had been limited, but had at one time a few trees infested with Black scale.

Mr. Decker of Cienega had pear-tree scale, but used kerosene wash and eradicated it entirely.

At the afternoon session, the subjects treated and discussed by members of Horticultural Convention were as follows:

- 1st. Codlin Moth.
- 2d. San Jose Scale.
- 3d. Bees and Fruit.
- 4th. Best Means to Eradicate Fruit Pests.

There were about 30 members present, and the discussions showed our fruitmen alive to the interests of their business and that brain-power was not lacking any more than muscular.

Messrs. Blanchard, Rice and Isham were elected Board of Horticultural Commissioners of Ventura Co., to make inquiries and report at the next convention.

It has become evident that decided action must be taken here to protect our orchards, and it is hoped that the laws already passed may be enforced for their protection, and that means may be voted by the supervisors to carry on all necessary work. M. E. D.

Dec. 16, 1890.

## Rosin Wash for the Orange Red Scale.

R. C. Kells, J. C. Gray and H. P. Stabler, Horticultural Commissioners of Sutter county, recommend the immediate and thorough use of the following wash on orange trees infested with red orange scale. This remedy is known as the rosin wash. It has been indorsed by the State Board of Horticulture and has been used with great success against the red orange scale in Southern California:

Eighteen pounds rosin.  
Five pounds caustic soda—70 per cent strength.

Two and a half pints fish oil.  
Water to make 100 gallons.

Boil the rosin, caustic soda and fish oil in about 20 gallons of water. Be sure the ingredients are thoroughly dissolved, then add water to make 100 gallons. This wash, used on orange trees, will in a great measure rid the trees of the red orange scale, but it must not be expected that one application will entirely eradicate the pests. It will require several thorough sprayings to accomplish that result on badly infested trees.

SENATOR PETTIGREW favors the total extinction of the seal. He says they eat up more good, nutritious codfish every year than their hides are worth.





### The Forsaken Farmhouse.

Against the wooded hills it stands  
Ghost of a dead home staring through  
Its broken lights on wasted lands  
Where old-time harvests grew.

Unplowed, unsown, by scythe unshorn,  
The poor forsaken farm-fields lie,  
Once rich and rife with golden corn  
And pale green breadths of rye.

Of healthful herb and flower bereft,  
The garden now no housewife keeps;  
Through weeds and tangle only left  
The snake, its tenant, creeps.

A lilac spray, once blossom-clad,  
Sways bare before the empty rooms;  
Beside the roofless porch a sad  
Pathetic red rose blooms.

His track, in mold and dust of drouth,  
On floor and hearth the squirrel leaves  
And in the fireless chimney's mouth  
His web the spider weaves.

The leaning barn about to fall  
Resounds no more on husking eves;  
No cattle low in yard or stall,  
No thrasher bears his sheaves.

So sad, so drear! it seems almost  
Some haunting presence makes it sign;  
That down yon shadowy lane some ghost  
Might drive his spectral kine!

—John Greenleaf Whittier.

### Mrs. Hawes' Twins.

Mrs. Hawes had returned to her work of looking over old coats and trousers with a view to making them into rugs. She remarked to herself and to the cat that it "wasn't no manner of use to waste her breath calling when folks didn't want to hear."

She stood tearing off a strip from an old-time Sunday coat belonging to her husband, when the door opened quickly and a girl about sixteen years old walked in with an air as if she had been running.

"Here I am, mother!" she said. "What is it you want?"

Mrs. Hawes glanced up.

"'Twas Martha Jane I was calling," she said.

"I'm Martha Jane. O mother, when will you know me?"

The girl threw back her head and laughed, Mrs. Hawes dropped the coat skirt, gazed a moment and then laughed, too, but with a vexed air.

"That comes of having twins to contend with," she remarked. "I thought by the way you broke into the room 'twas Jane Martha. She's liable to come through a door as if she had been shot out of a gun. Where've you both been?"

"Down to the brook. The wind blew so we didn't hear you when you first called. Did you want anything particular?"

The girl tried to speak patiently, though she was longing to go back and resume making a swing between the two cider apple trees.

"Miss Lawler's jest hen here," Mrs. Hawes announced.

"Oh, hae she?"

Martha Jane clasped her hands as she put this question. Her face flushed and her eyes sparkled with interest. Her mother partially ripped a sleeve before she spoke again. Then she continued:

"She's decided to have that music party—musikari, she calls it—next Wednesday evening. That German Herr Rickerstruther or somethin' can come then—sooner'n she expected. She invited both you girls. She said it would be finer'n anything you've ever heard. Miss Dalrymple from Boeton's gonn' to sing. I thought you like to know right off. That's why I called, though I knew you was havin' a good time at the brook."

Martha Jane turned and walked to the window. From there she asked:

"You said we both were invited?"

"To be snore. I'm afraid you'll have a hard time decidin'," the mother answered, anxiously.

"There's nothing to decide," said Martha Jane. "It's Jenny's turn; I went to the church fair last month, you know."

She came from the window and stood before her mother. She flung out her hands with a quick gesture as she exclaimed, passionately:

"I do wish we had more than one dress! It does seem sometimes as if I couldn't bear it!"

"You don't wish so any more'n I do," said Mrs. Hawes. "You know jest how 'tis; we keep havin' doctor's bills to pay for my sick spells, 'n now it don't look as if we could ever afford for you each to have a nice dress. I s'pose we ought to be thankful you c'n have one, 'n so swap round 'bout gonn' to places, bein' jest of a size, 'n as like's two peas un-way. I wish 'twas diff'rent, but I can't help it," she sighed as she ran her knife across the stitches.

Martha Jane was moving restlessly about the room.

"Praps Jane Marthy'd give you her chance," suggested Mrs. Hawes, more to see what this daughter would say than for any other reason.

"I shouldn't wonder," was the response. "She's twice as good as I am, but she wants to hear that music as much as I do. She loves it just as well. No, it's her turn. She must go and I must stay at home and envy her. It's horrid to be so poor!"

The girl tried to keep the tears that rushed to her eyes from falling on her cheeks. She saw her mother's lips tremble.

"I'll be good about it after a little," Martha Jane said, in an unsteady voice. "Only give me time to think it over and get the upper hand of myself."

She hurried out of the room and up the steep stairs to the chamber under the roof which she shared with her sister. She sat down on the bed, crying out in a whisper:

"I rather hear Miss Dalrymple sing than anything else in the world."

Then justice compelled her to add:

"So would Jenny, and it's her turn."

In ten minutes she came down the stairs. She opened the door and tried to speak with brave cheerfulness.

"All right, mother! I don't mean to be a mean wretch this time."

She ran at the top of her speed down to the brook, where her sister was now trying the new swing, dreamily "letting the old cat die" in the soft, sweet air.

Mrs. Hawes left her work and watched the young figure as it bounded along.

"They couldn't either of 'em be mean wretches to save their lives," she said aloud, with a kind of sorrowful pride.

But Martha Jane had not yet fully got "the upper hand of herself." When she told Jane Martha of the invitation, and said "It's your turn, you know," she felt rather bitter. It seemed to her that her sister's turn always came at the best times.

There was silence for a moment. Then Jenny said, as if speaking to herself:

"Only to think of hearing Miss Dalrymple sing!"

These twin girls were gifted not only with the musical temperament, but with rarely sweet singing voices. Not to be able to improve these gifts under competent instruction had been one of the great trials of their poverty.

Martha did not speak. She felt very hard and disagreeable. She recalled the resolves just made in the little chamber, but the recollection did not do her much good. She knew she was yielding to evil. She felt her eyes burn and snap.

The two girls sat in the broad seat of the swing, which barely moved. A red-shouldered blackbird came into one of the apple trees over them and sang out his delicious melody.

At the first note Jenny turned toward her sister. She knew instantly all that Martha was feeling. She had a moment's fight with herself, then she said:

"You shall take my turn, and I'll have the next two turns at our gown. That'll be fair, won't it?"

Martha had spoken truth when she had said that Jenny was better than she was. She knew in her heart that she had often taken advantage of that self-sacrificing spirit, and she had had many a "crying fit" of remorse because she had done so. Now she was tempted again and almost ready to yield. She shrugged her shoulders violently. "No!" she said, with emphasis, "it wouldn't be fair. You know as well as I do that this chance is worth all we may have in a year." She made a great effort, and added, "and I won't take your turn, eo there!"

She kept bravely to her resolve all through the three days which followed. It was Jenny, the lucky one, who went about her work in a perturbed state of mind. She kept looking forlornly at her sister.

It was only on the morning of the Wednesday she appeared to cheer up somewhat. She had a private consultation with her mother, who constantly interrupted her with the exclamations, "The land's sake! it'll never do! it's just a crazy idea!" But she laughed as she uttered these interjections, and finally said: "Well, praps there's no harm in it, but don't ask me to help you'n if you get into any trouble, but blame nobody but yourself."

"There's no trouble to get into," responded Jane Martha, confidently. "Nobody'll ever know anything about it anyway. I'll go up to the village now and call at Mrs. Hardy's. I know she'll be willing."

It was not half an hour later when Mrs. Hardy, who lived just across the street from the tall verandahed house which was Miss Lawler's home, opened her front door to find one of the Hawes twins waiting.

"Come in," she said cordially. Of course I don't know which 'tis, but you're welcome all the same."

"It's Jane Martha," replied the girl, stepping into the cool hall.

When she was seated by the kitchen table, whereon Mrs. Hardy was rolling pie-crust, she hesitated and blushed a good deal before she really announced her errand. When she had done so, however, she went on easily enough, and laughed with the good-natured lady who listened to her.

"Mother finally told me I might," she said, "if you were entirely willing."

"Just as willing as I can be," was the answer. "There'll be a great time at the Lawlers' to-night. Very select, too. Only musical people going. I suppose Miss Lawler thought you and Martha Jane was musical, and so you are."

When at a quarter before eight that evening Jane Martha timidly went up the path leading to the great Lawler house, she saw through the windows how brilliant the rooms looked, and how lovely were the flowers in them. She felt very small, but still very eager.

Miss Lawler herself, a tall lady in thin, shimmering silk, was coming through the hall when the servant let in the twin. She smiled on the shrinking child, and Jane Martha collected her wits.

The first thing the lady said was what everybody said when Martha or Jane was met alone: "Which is it?" and when the girl had told her, "I'm sorry you could not both come. I'll put you in a good place where you can see and hear."

Jane, in the pretty, light-colored cashmere which belonged to her and her sister, was placed in a chair near the door, where she could see the piano and every one who played or sang. She looked at the open door and breathed a sigh of relief. Then she prepared to enjoy herself.

The German Herr, as she called him, played. She had not known that a piano could sound like that, but still she waited for the singer. She knew that the slender girl in white, who had at her throat a cluster of carnation pinks, must be the one.

Yes, it was she; and at last she sang. It was only in dreams that Jane had ever heard such tones, but she had dreamed of them often and now it had all come true. The notes penetrated and thrilled Jane's heart until she could hear no more. She had unconsciously pressed her hands to her bosom, and as the last high notes soared and soared in pure sweetness, Jane, still not knowing what she did, rose from her seat and leaned forward.

Miss Dalrymple, turning when her song was done, saw the figure and met the vivid glance of the eyes.

Hardly noticing the applause, she turned to her hostess and said, "That child can sing."

Miss Lawler looked at Jane, who was now shrinking back.

"Indeed she can. You shall hear her. She loves music so well, I think she will not even be afraid to sing now."

"Let me ask her."

The next moment Jane Martha felt a hand on her shoulder. She looked up adoringly into Miss Dalrymple's face, and that lady felt that she had never given more pleasure.

"Will you sing for me?" she asked.

"Now?" whispered Jane.

"Presently. You shall stand close by me, and I will play for you. You shall sing what you please. Are you willing?"

"O, yes, for you!" answered the girl.

Miss Dalrymple smiled down upon her and took a small, cold hand in her own.

So it happened that Jane's fresh, unsullied soprano voice, full of suggestions of power, was heard at Miss Lawler's musicale.

Miss Dalrymple listened in admiration. She rose from the piano and said, so that every one could hear, "I could not do nearly as well as that when I was the age of this child. It would be a shame if such a talent should be wasted."

Then there was a hustle of movement and oompliment, and "the Herr" was going to play again.

Jane went back to her seat quite dazed by what she had done, and by what Miss Dalrymple had said. No one noticed her now, and she could listen undisturbed.

It was not until nearly an hour later, after cake and coffee and ice had been handed among the guests, that Miss Dalrymple again remembered the girl. There she was in her corner. She was eating an ice. The lady walked toward her.

"I want you to sing once more," she said; "I have a plan in my mind. Perhaps I can give you a couple of hours a week for the next two months. I shall live here with my friend until winter."

The girl clasped her hands and began to tremble. She seemed bewildered.

"What, you are afraid this time, are you? It was really a treat to hear you before, or I would not ask you when so many are present."

"Yes, I am afraid," said the girl, "but since you wish me to try, I must."

Miss Dalrymple was sorry for the child when she had placed her by the piano again. The small face was white and the lips almost stiff.

"Take heart," whispered the lady. "You did so well before. What shall it be?"

When at last the song was selected, Miss Dalrymple looked at her companion in surprise.

"Do you know in what key that is written?" she asked.

"Yes."

"But can you sing as low as that?"

"O yes."

The other stood in amazement with the sheet of music in her hand.

"I don't understand it," she said.

The girl gazed pleadingly at her, but was silent.

In a blind way the accompaniment was begun; but when an untutored but rich contralto voice commenced the song, there was a discord among the keys of the piano, and Miss Dalrymple wheeled round and stared at the girl

beside her, who trembled so that she could scarcely stand.

There was entire silence among the people present.

"What does it mean?" cried Miss Dalrymple, looking about her in wonderment. "It cannot be that this child has two distinct singing voices—one very high and the other very low. She is a phenomenon."

Judge Lawler, in the doorway, began to chuckle audibly. He had seen a slight figure steal out and soon return, and now he thought he understood.

The girl at whom everybody was looking tried twice to speak before she could say a word. Then she burst out shrilly:

"Oh, if you please, I am the twin!"

"That explains," cried the Judge, and he began to roar with laughter. All the company joined in, and the "other twin" stood in the midst, blushing, and finally laughing, too.

"You are not the one who sang first?" she was asked.

"No, ma'am. That was my sister Jenny. It was her turn with the dress—"

Martha Jane stammered, then was silent, growing more painfully red than ever.

She had waited across the way at Mrs. Hardy's for her sister to leave the party. Then the two had changed frocks so that both should have a share of the music. This had been Jenny's little plot. In the hurry of changing she had not told that she had been obliged to sing.

"No matter about the dress, now," said Miss Dalrymple with ready tact. "Let us finish the song."

The distressed young face appealed to her deeply.

Afterward, sitting by the child, she heard why the twins were obliged to "take turns in everything nice," as Martha Jane expressed it. "But," said the girl, "it did seem as if we could not both give up hearing you. It was Jenny who thought of the plan."

The next morning Miss Dalrymple returned to Boston. As she left the phaeton, in which Miss Lawler had driven her to the station, she saw two young girls in plain gingham gowns and broad hats, hurrying down the road. They were the twins, and they brought two lavish bunches of roses which they shyly offered.

It was Martha Jane who spoke for both. But all she was able to say was, "Miss Dalrymple, we could not help coming to see you off—and to thank you."

The singer kissed each young face as she took the flowers. She thought she had never received homage so sweet as that she saw in their eyes.

The train was coming. "I shall remember the lessons I am to give you," she said.—*M. L. Poole in Youth's Companion.*

### Kitchen Experiment Stations.

In Printing House Square, one of the busiest places in New York City, one sees a stone drinking trough with these words cut deep into its sides: "Drink, patient friend." A clear stream of water gushes into the trough and the weary dray horses stop to take long draughts. On many a liquor saloon in the neighborhood one might imagine he read the same words, "Drink patient friend;" but the human creature that takes whatever is offered him is not to drink to his refreshment and increased working power. And over many of the restaurants would be a not inappropriate motto "Eat, patient friend;" for we know how submissively the average clerk of the region will take his seat on the high stool and eat of grease-soaked meat, soggy potatoes and sawdusty bread, topping off with the national pie and doughnuts.

To the hundreds of thousands of us who "eat what is set before us asking no questions," it seldom occurs that we have actual cause for envy in the condition of our friend the horse, whose food has been studied by learned men as to kind, quantity, and proportions, and with such success as can be seen on any fine stock farm.

There are few of us who do not love a horse and cattle show, but we would appreciate it still more than we do, could we compare these beautiful racers and sturdy draught horses, these Ayrshires and Jerseys and Guernseys, with the horses and cattle in use among us one hundred or even fifty years ago. Would that the human race could show in a half century any such improvement in its physique!

Of course not all this improvement is due to the scientific study of food, but that is confessedly the largest factor, the animal always responding to improved food by greater effectiveness, whether in flesh forming, milk giving, or working power.

It is scarcely half a century since the first Agricultural Experiment Station was erected, and they now number over one hundred in Europe alone.

Now is it not time that there were experiment stations for the study of a person's food, and especially for the proper preparation of it? The German scientists have informed us in the "standard dietaries" just how many ounces of bread, beans, and other foods are necessary to sustain a human being



daily. But that these foods may yield to us their full analyzed amount of nutriment, how shall they be cooked, Mein Herr? Shall our beans be boiled, or Boston baked, or shall they be prepared in some way known only to the Fatherland? Surely a link is missing here.

For those who think that cookery has reached tolerable perfection as an art or even may be numbered among the sciences, this question will have no interest; but most of us think that not only is the science of nutrition in its beginning stages, waiting, as it must, on the growth of chemistry and physiology, but that the knowledge already available has been but little applied to the preparations of food.

Numberless questions throng upon us of the greatest economic importance, not to speak of their relation to hygiene.

How shall the cheaper cuts of meat be cooked so as to make available all the nutriment and to develop all the flavor? Then there is the life of our most valued and least understood house plant, the yeast, and not less important, its death in the oven, a study of temperature from beginning to end, and only to be fitly conducted thermometer in hand. A hundred other questions in animal and vegetable cookery are waiting for answer.

When we come to cooking utensils and methods we are indeed in an unexplored country. The kitchen range was long ago pronounced dirty, wasteful and not easily controlled, but what is to take its place only careful experiment will decide. That coal will not be the fuel of the future is more than probable, but when we talk of gas, gasoline, or petroleum, and their application to different cooking utensils now in use, we meet questions of relative expense, safety and availability; and what housekeeper's opinion on these points is supported by well-observed facts covering the whole ground? How many, for instance, know or have any means of determining how many cubic feet of gas are necessary to boil a gallon of water?

At the Agricultural Stations extensive experiments are made on ensilage, the softening of vegetable fibers by acids developed in the process. Does not this suggest much needed experiment of softening of meat fiber by hanging? And if it is well to study commercial fertilizers, made foods for grains and grasses, shall we not know with more certainty about the growing list of prepared foods for human beings?

"The modern feeding of pigs, its influence upon the formation of the skull and dentition," is no doubt a useful study, but it suggests one that would perhaps be of equal value, the food of children, with accurate observations as to the effect on growth and development.

Some one says, "Oh yes, these are all important matters, but why an experiment station? Cooking is the business of the cook, let her experiment in the kitchen." No doubt there were people fifty years ago to say, "Why an agricultural station? Every farm should be one." But it was found that the farmer with his planting, his mowing and his reaping, his stock feeding and his fence mending, had little time to experiment on silos and cross-fertilization even had he possessed the necessary training and facilities.

And so it may be found that the making of clothes, the care of children, and the thousand duties that come to the mother of the family possibly may forbid her becoming an ideal investigator. It would seem that she who now bears the blame of our national failures in cookery has had more than her share laid upon her. Considering all that is required of this remarkable person, is it fair that we should ask her to turn her kitchen into an experiment station? It would be difficult to name any other manufactory that is expected to do the work of a laboratory in the same four walls and with the same utensils; and the kitchen is a manufactory where the daily output must not fail. If the housewife learns and applies what some one else with all the needed facilities has discovered, she will do as much as we expect of the farmer, the manufacturer, or he who follows any other business.

Intelligent women know that home hygiene together with the whole subject of food and cookery is in an unsatisfactory condition. There are many reasons for this, but none that would not melt away before intelligent study.

A Kitchen Experiment Station would be a center for such work; it should have its laboratory or a connection with one already existing, and its practical work should begin with a study and comparison of cooking methods and utensils. A modest beginning at this work has been made at the New England Kitchen on Pleasant street, in Boston, but it is still too early to say what results it can offer us.—*Mary Hinman Abel in Chautauquan.*

## YOUNG FOLKS' COLUMN.

### Mabel and Billy's Journey with the Lapwing.

[Written for the RURAL PRESS by ALICE KINGEBURY COOLEY.]

Once upon a time there was a little boy and girl sitting under a tree in what was a beautiful garden in summer-time.

"It's real nice sitting here and having the pretty red and yellow leaves falling in a shower on one, for they make one think of gathering nuts and having a good jolly time," said Mabel.

"That's so," said Billy, "but I think when people plant trees, they might think something of other people's comfort; what fun we could have if this was a nut tree, hickory or walnut; I could climb up—"

"But you might tear your pants, Billy," interposed Mabel.

"Pshaw! Don't you think I can climb?" retorted Billy.

"Yes—but—oh! what is that?" exclaimed Mabel, as a bird fell at their feet.

"Oh! the poor little thing, I believe its leg is broken."

Billy picked it up.

"Yes, it is; I wonder how it happened. I didn't hear a gun go off, did you?"

"No. Oh! I'm so sorry. Can't we do something for it?"

"Yes, I think I can; you hold it while I whittle this stick smooth—there." Two pieces were soon ready. "Now about the bandage."

"Take this ribbon," said Mabel, removing it from her hair; "but what kind of a bird is it, Billy?"

"Don't talk till I get through," he replied.

The bird lay still as if it knew something was being done to help it. The operation was neatly performed.

"I wonder if it can stand," and Billy placed it on his finger carefully. The bird stood on one leg and turned his head knowingly.

"What is it called, Billy?" persisted Mabel.

"Let me think—lark—no, linnnet—"

"Lapwing," exclaimed Mabel triumphantly.

"So it is," said Billy. "Isn't there some fable about it being able to discover hidden springs?"

"You're both right," piped the lapwing.

Billy nearly dropped the bird, he was so startled.

"O—h!" was all Mabel said. But her eyes were round as saucers.

"You are both surprised, but why shouldn't I talk as well as the parrot? But as you have both been so good to me, I'll show you some of the wonders inside the earth, that is, if you are not afraid to follow me."

"I'm not afraid if Billy goes," cried Mabel.

"I'll go, I'm fond of adventure; besides, a bird can't hurt us," he said in an undertone.

"Quick Billy, hoist me up, we can't stop to go to the gate," and Billy hoisted her, then climbed the wall himself and let her down on the other side, then he got down. They had to cross a little brook to follow the lapwing, which they did in time to see it boring a hole with its beak in the side of the steep hill opposite. It whirled round and round, just like a pin-wheel on the Fourth of July.

"Follow me, but don't talk," it said, and disappeared in the opening.

"How can we follow through that little hole?" cried Mabel. "Let's make it larger, quick," and Billy opened his jackknife and dug away energetically, and Mabel did the same with her nails.

"Let's squeeze through that, Billy, and see where the bird is."

"All right, I'll go first," and as his feet were disappearing Mabel called, "Is it very dark in there?"

But Billy kicked his foot for her to hush, then helped her through, and they found themselves in a sort of cave. It was filled with a mysterious light like that from a glow-worm. The lapwing flew slowly before them.

"There it is," cried Mabel, but the bird quickly turned its head and Billy gave her such a nudge that she nearly fell off the ledge on which they were walking.

"Oh!" she uttered, then slapped her hand over her mouth and on they went. Soon they heard a tinkling sound and all of a sudden they beheld a group of the funniest little fat men, who were hammering, smiling and nodding, but never a word came from their lips. The most musical sounds came from their lips. The children paused and watched them. What queer little men they were! big eyes, bare pates, great smiling mouths and dumb.

"Tinkle, tinkle," sounded as their hammers fell, and soon one of the little men held up admiringly a great gold star. It glittered like a gem from the Southern Cross.

"Oh, how pretty!" cried Mabel, but suddenly all the stars, made and unmade, fluttered up through the roof of the cave and disappeared. The queer little men had all vanished, the sweet sounds had ceased and all was silence.

"Stupid!" cried Billy.

"I couldn't help it," said Mabel. This not being allowed to talk took all the pleasure from this mysterious journey.

Again strange musical sounds were heard, and such a sight greeted them—a group of men so tall and slender that, shining in the light, they looked like part of their strange work—they were making moonbeams! As

they raised their long arms and their hammers fell, the sweetest sounds echoed through the cave, and the long, glittering beams trembled and sparkled. The tall men scanned their work with raised eyebrows and puckered mouths, shaking their heads, but not speaking a word. The beams were about finished when they broke into a perfect chime, playing the rarest tunes. Mabel could restrain herself no longer, but cried, "Oh! Oh! O—h!" and the moonbeams trembled and shivered, and shook themselves clear through the roof and soon were shining down upon the earth, frightening the people nearly out of their senses.

"Where's the moon?" they cried, and looked behind church steeples, but no moon could they see. "There's the beams, but where's the moon?" and they hurried home and hid their heads in the bed-clothes.

The tall men were so angry at this turning nature topsy-turvy that they looked so sour that all the milk on the doorsteps was clabbered. Then they seized on to the ends of the beams and disappeared into space.

"Stupid!" cried Billy, with a still sharper poke in her ribs, but poor Mabel began to cry, so he repented and tried to comfort her. Soon all ill-temper was forgotten in wonder at the gigantic pillar, sparkling with every color of the rainbow, and the huge, fantastic heaps of crystal, and all so beautifully lit up with the wondrous light.

"Isn't it beau—" but Mabel stopped suddenly and Billy looked black and the lapwing shook its head. On they went, the light ever increasing and the beauties of the cave becoming more resplendent. Suddenly such a sight burst upon their view that they stood perfectly bewildered; there lay the great, big, laughing moon flat upon its back, and a lot of round, laughing moon-men pounding and hammering it with all their might, but what delicious music the hammering made!

"This must be the music of the spheres," thought Billy. They stood on a slight elevation, so could look down upon the moon, and there was the big face all upon a grin and one eye was half shut and seemed to be winking at them in such a comical way that Billy forgot all caution and cried, "Oh, my!" and burst into such a fit of laughter that he broke some of his buttons off.

"Stupid!" cried Mabel triumphantly; then all the round, fat moon men, with one eye closed in a horrible wink, gave the moon a little hoist and away it went wabbling up through the cave, the moon men clinging to its horn, and that's what makes the moon not quite round when we see it rise big and red and battered some nights.

"Now who is stupid?" cried Mabel, almost in tears, for the cave had become suddenly dark.

"You can talk now," piped the lapwing, "for you've done all the mischief you can; but follow my voice and you will soon be able to see."

A faint light now appeared and they saw that the beautiful cave had changed into a long, narrow, irregular passage like a level of a California mine, and yes, there were the little Brownies they had heard about digging away for dear life. Mabel and Billy walked along, not daring to speak a word. At last they came to a little hill with quite a hole above through which the sky shone.

They now noticed a good-natured looking Brownie picking up stones and rolling them in halls of hard clay, then throwing them through the opening north and south and east and west.

"What is he doing?" whispered Mabel.

"I don't know," answered Billy.

"Mister—will—you—please tell us—what you are doing?" asked Mabel.

"Aha! so you want to know?" answered the Brownie. "Well, this is where we supply the pretty ladies with their sparkling jewels. See, this is a ruby; how grand it will look in the ear of some dark beauty;" all the while he was wrapping it in its covering of clay; "this one goes to Ceylon, and will save a lovely lady from being poisoned by a rival!" Then he ran up to the opening and threw it with all his might to the east. "This diamond goes to the mighty Amazon, and will free a poor slave finding it, who will never cease thanking the Great Father; then a young bride will own it, whose faith and love for her husband will make her happy, until—but there, I can't tell you all their histories, or you would have to come down here and live to hear them."

"Oh, please a little more," pleaded Mabel.

"Well, perhaps you will prize the little stones if you know something about them. This emerald is just like the one worshipped in the idol in Peru long ago. It goes to the Indies and saves a dear little boy from being bitten by a terrible serpent, that becomes petrified on seeing this stone, so fails to strike the little fellow, who—but that is enough."

"More, please," from Mabel.

"Well, do you see this pretty turquoise—"

"That's the stone for the month I was born in, ma told me so!" cried Mabel.

"Don't be talking so much," grumbled Billy.

"This one is going far away and will make a poor young man happy who is breaking his heart over a pretty girl, and—but I can't tell you all their history," he said, throwing the turquoise into the stream that ran past the opening. "But here's a present for you—a necklace of the pretty stones—and you must keep it forever."

"Oh, thank you, Mr. Brownie," cried Mabel,

"and here's my neck ribbon to remember me by."

"That's nice," said the Brownie. "We have no silk under here."

"If you like it so, take my necktie, too," said Billy.

"Well, you are both kind children—"

"That they are," said the lapwing; "they mended my broken leg."

"Ah, well, well!" and the Brownie filled their hands from his capacious pockets with priceless treasures, then gave them a fine diamond for their mother.

"For bringing you up so kind," he said.

"He has forgotten pa," thought Mabel, "but I'll divide with him."

"Now, good-by, for you must go," said the Brownie, helping them through the opening into a little boat that was in the stream outside.

"Good-by!" they shouted, and away they went, past waterfalls, trees, flocks of sheep and climbing goats; then they went slower, and the scene became familiar, the lapwing had disappeared, and there was their house in the distance. The boat stopped and they got out.

"I don't like to leave the pretty boat," said Billy, looking at it wistfully.

"It can't go any further," said Mabel; "let's hurry home," so they did, and rushed to their mother all out of breath. It took some time to tell their story, but their mother said:

"It's New Year's and you've been dreaming." But when they showed her their presents and gave her the diamond, she thought *she* must be dreaming.

Billy hurried away to call after the boat, but could not find it, and many a day afterward they climbed the big hill, but never could discover the hole made by the lapwing or the stream, or the Brownies, and at night they would try to discover the sour-looking men hanging on the horn of the moon, but the moon laughed at them as of old, and the beams danced upon the waters and the stars sang together for joy, but Billy and Mabel never had any more wonderful adventures as long as they lived.

708 Fulton St. S. F.

## DOMESTIC ECONOMY.

### Excelsior Yeast.

EDITORS PRESS:—This preparation is made as follows: One handful of hops, one teacup of corn roasted to a cinnamon brown, four large potatoes, one pint of flour. Boil hops and corn (put together in a bag) three or four hours or until the corn is soft to breaking. Boil separately the peeled potatoes until soft and mash fine, adding to the liquid (a full quart) the potato and flour rubbed to a smooth paste in a little cold water. To this add one teacup of sugar, one-half cup of salt and one tablespoon of ginger. Finally, add a full quart of the corn and hop liquid and cook all together until it thickens. When cool, add rising, and after 12 hours' fermentation, jug and keep in a cool place. This yeast, owing to the fine flavor given to bread and its long keeping qualities, is specially adapted to country-house use and warm climates.

C. E. KINNEY.

GOOD COOKIES.—One cup of molasses, one cup of sugar, two eggs, two teaspoonfuls of soda, three tablespoonfuls of vinegar, flour to roll soft. Nice for children's school lunch.

HASH ON TOAST.—Take small bits of cold meat, one pint of hot water, thicken with two tablespoonfuls of flour, a good-sized piece of butter, pinch of salt. Turn over toasted bread and serve immediately.

SOFT GINGERBREAD.—One pint of molasses, two tablespoonfuls of butter, one cup of sour cream, one teaspoonful of soda in the cream, one teaspoonful of cream tartar in one cup of flour, one tablespoonful of ginger, and enough flour to make an ordinary cake batter.

APPLE CHARLOTTE PUDDING.—Butter a pudding dish; line bottom and sides with slices of bread one-half an inch thick, buttered and dipped in cold water. Fill dish with sliced, juicy apples, one cup sugar, one cup cold water, little spice. Cover with slices of buttered bread, cover and bake very slowly four hours.

GRAPE JELLY.—Heat ripe black grapes over a slow fire, stirring and mashing them until they burst and the juice runs out. Strain through a thin muslin bag without pressing them. Return juice to the fire and boil rapidly 20 minutes, then stir into it two heaping teacupfuls of white sugar to three cups of juice. Boil briskly 15 minutes after adding the sugar, skimming carefully and stirring it while boiling. Remove and pour into glasses before the jelly begins to cool.

RICE PUDDING.—Put two tablespoonfuls of rice and two tablespoonfuls of sugar into one quart of new milk, stir until the sugar dissolves, add a grating of nutmeg, and if you like, one-half cup of raisins. Place the pan in the oven and cook very slowly for about 1½ hours, stirring the pudding every ten minutes until the last half-hour. If the oven is too hot the pudding will be too thick. Probably the reason why your pudding settled to the bottom was that you did not stir it. This constant stirring makes them creamy and well mixed.





A. T. DEWEY.

W. B. EWER.

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Saturday, January 3, 1891.

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## Business Announcements.

(NEW THIS ISSUE.)

Nursery Stock—Felix Gillet, Nevada City.  
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 Roses—The Storrs & Harrison Co., Painesville, Ohio.  
 Roses and Seeds—Duggie & Conard Co., West Grove, Pa.  
 Stump Puller—Geo. Harvey.  
 Seeds—Barteldes & Co., Denver, Colorado.  
 Fence—Judson Manufacturing Co.  
 Dividend Notice—San Francisco Savings Union.  
 Fruit Trees—Ingleside Nursery, Sacramento.  
 Grape Vines—Stephen Hoyt's Sons, New Canaan, Ct.  
 Trees and Plants—Aloha Nurseries, Penryn.  
 Poultry—T. D. Morris, Agua Caliente.

See Advertising Columns.

## The Week.

We go to press one day earlier than usual to allow our force to participate in New Year's festivities and rejoicings.

Monday night and this (Tuesday) morning brought rainfall varying from a small fraction to a whole inch at different points. It was, as a rule, a quiet storm and not such a lively shaking up of the skies as we hope will soon follow.

Thus far, the rainfall for the season is at most places but one-quarter to one-tenth as great as last year up to this date, but of course last year was unusual and excessive beyond all needs or desires. Still we need much more than we are receiving, and must look to January to make a record.

Next week the new State officers will take charge and the new Legislature assemble. It behooves all who have honest interests to serve or to protect, to keep their eyes upon public affairs during the next three months.

The gas flow for the Court House at Stockton is 60,000 feet per day.

## Please Remit.

The beginning of a new year is a good time to settle up the debts of the old ones. We are obliged to remind those who owe the RURAL on subscription account, that it will be a great convenience to us if they will soon remit what is due. Those who can also pay in advance will also do us timely and well-appreciated favor. We are doing our best to present a very valuable paper, divested of all features deleterious to the interests of the most carefully guarded households. To do this we deprive ourselves of some of the most lucrative lines of patronage available to the average newspaper. The cash in advance price of our paper is low compared with its size and quality, and we wish to keep it so. By paying as promptly as possible, friends, you will greatly encourage us in our sincere efforts to favor you and the best interests of your calling.

## The Weather.

Another area of local rains has covered considerable portions of the State, and still further relieved apprehensions of a dry year. This year, as ever before, fear and confidence have alternated, according as fog or raindrops filled the air. The mind naturally turns from one extreme to the other with, perhaps, slight reason for either extension. During the last week there has been much published in the newspapers around the bay about land fogs as observed by a farmer living on the east side of the bay, and by him taken as a warrant that the year will be dry, and consequently he will proceed with seeding of low lands, which in a season of ordinary rainfall would be too wet for early sowing. When such land fogs occurred in previous years, he did this, and made much money from his low ground, and proposes to do it again this year. Now it is the part of wisdom in a farmer to be observing and to draw conclusions from his experience, but we fear that the publication which has been given to one man's conclusions may be given undue weight. He may be right and he may be wrong this time; therefore his policy and practice should not be followed blindly.

We notice that Sergeant Barwick gives the *Record Union* some notes on this subject which seem to us to be conservative, and perhaps calculated to restrain people from drawing weather prophecies from insufficient data. We quote as follows:

These long-continued land fogs may be regarded as a pretty sure sign of what we may consider as a dry season. I took charge of this station in March, 1881, since which time—and in fact from the first opening of this station in July, 1877—the records show but one spell of foggy weather that in any manner compares with the present, and that one was far ahead of this, as the following record will show:

That foggy period was in the year 1881, commencing as early as November, and prevailed from the 9th to the 17th. Each morning was foggy, although the sun did make its appearance each afternoon on almost every day during the nine days of November fog, but in the December following there were 11 continuous days of fog and clouds that obscured the sun. This foggy spell began on Dec. 5th and ended on the 15th, making a total of 11 days; and, counting the nine days in November, gave us a total of 20 days of fog, as against about 15 foggy and cloudy days, combined, for the present month.

The records of this office show that the season of 1883 and 1884 was not a dry one by any means, for there was precipitated 24.78 inches of moisture—5 inches over the average. The amount that was deposited before Jan. 1, 1884, was but 2.91 inches, as against 3.70 inches for the present season to date.

From the above comparisons, it is not desirable to give positive advice to the farmer to plant his low-lying ground earlier than usual for fear he might lose his seed and labor also. That Contra Costa farmer, who proposes to sow low land earlier than usual, ought to know by this time that the most unreliable thing in California is to judge the future weather or rain prospects by the past. I had a sad experience in that respect, for, by all rules of judging the future weather by the past, last winter should have been an exceptionally dry one, but instead it was an exceedingly wet one, there having been over 33 inches of rain measured.

The better and safer plan for the farmers to follow is to take no stock in the coming season being a dry one simply because there has been so much foggy weather during the present month, but rather to wait and see for themselves and sow and plant at the usual time.

The deduction from this plainly is, that we have not yet reached a point when the weather can be definitely foretold for any considerable period ahead. It seems likely that we shall have a year of less than usual rainfall, and yet there may be very heavy downpours which might render disastrous any marked departure

from usual times of sowing different classes of lands. There may come rains so placed that there may be large crops, although the season's aggregate may be less than usual, and in such amount that all good soils, except in the distinctively arid regions of the State, may prove profitable this year. Therefore, it behooves the farmer to get his work along as sharply as he can, but not to make any sharp departures from methods which have served him well, merely because another man in another district feels himself warranted in a certain course.

## The Marysville Citrus Fair.

Preparations for this fair are progressing favorably, and indications are for a splendid display and satisfaction to visitors. The following excursions and excursion rates have been arranged for by the Marysville Citrus Fair Association:

Oroville excursion. Leaving Oroville at 10:30 A. M., Wednesday, January 14th, and returning leave Marysville at 11 P. M. Fare, \$1.50.

Sacramento excursion. Leave Sacramento about 10:35 A. M., Saturday, January 17th, and returning leave Marysville at such hour as may be desired. Fare, \$2.50.

San Francisco excursion. Leave San Francisco at 7:30 A. M., Saturday, January 17th, and connect at Davisville with the Sacramento special. Tickets good on regular and special trains as above returning on regular trains of Saturday, Sunday or Monday, the 17th, 18th and 19th. Fare, \$4.10.

From Dutch Flat, Red Bluff, Oroville, Sacramento and intermediate points to Marysville and return, tickets will be sold good on regular trains going from the 10th to the 17th, returning from the 12th to the 19th, inclusive, at two-thirds the regular round-trip rates.

Fare from Woodland and return will be \$1.50, and from Moore's Station and return, \$1.

As will be seen, the Sacramento and San Francisco excursions will be run over the Knight's landing road and the fare for the round trip from the latter place will be \$4.10, the regular fare for one way. This should induce a large attendance from the vicinity of San Francisco. City people ought to know more of the development of the industrial interests of the interior.

## Japan Persimmons

This fruit, so highly esteemed in the Orient and so highly praised by travelers, has not become as popular as expected on this coast, though its future must be regarded as promising. Its slow advance in popular esteem is probably due, in part at least, to lack of knowledge as to its manipulation to bring out its lusciousness.

At a fruit-stand in Berkeley we found the fruit packed in pasteboard compartments, like those of an egg-case, and each one wrapped in a soft paper wrapper upon which this was printed:

Ellwood Japanese Persimmons.

The great value of this fruit is as yet not fully known. When unripe and not properly cured it is astringent and exceedingly unpleasant to the taste. But when ripe, it is highly nutritious, luscious, and for delicacy of flavor is unequalled.

**DIRECTIONS.**—Place on shelf or sideboard or table for ornamentation until it becomes soft. It will shrink somewhat and turn a darker color; if it ripens properly will be uniformly soft in every part—must not be eaten until it is—then peel from the top. The skin is very thin and will leave the pulp readily.

ELLWOOD COOPER.

Santa Barbara, Nov. 1, 1890.

The grower is the well-known president of the State Board of Horticulture, and he is doing public service by thus placing his fruit upon the market.

**THE CHINO SUGARIE.**—Concerning the establishment of a beet-sugar factory at Chino, the *Pomona Progress* says: "The main building to be constructed at once will be 300 by 100 feet, and the outbuildings, including the refinery, will be on a corresponding scale. The works when in operation will have a capacity of 1100 tons of beets per day and will require for fuel from fifty to seventy-five tons of coal per day. Mr. Gird will plant at once 5000 acres to beets, and has ordered a 50-horsepower Best traction engine and the necessary gang-plows to prepare the ground. The factory is to be ready to begin work by August 1, 1891."

**BEE-KEEPERS' MEETING.**—The Southern California Bee-Keepers' Association will meet in Los Angeles, at the rooms of the Chamber of Commerce, on Thursday, Jan. 8th, at 1 o'clock. A large attendance is expected.

## QUERIES AND REPLIES.

## Perfume and Drug Farming.

**EDITORS PRESS:**—Do you think the cultivation of lavender, peppermint, poppies and plants that might be utilized by chemists would pay? Sheep have been our industry, and though still very profitable as a business, the Government land on which they grazed has been taken up by settlers so that we have been obliged to take them to less civilized parts. We have some fruit trees planted and are farming also, but I thought you could inform me if there are any wholesale chemists or laboratories in the city where we could dispose of such produce. We have been readers of the PRESS ever since we came from England in '76, and know that all kinds of improvements and agricultural interests generally are discussed in its columns.—READER, Monterey Co.

This proposition has been advanced several times and some enterprises have been started, but none, so far as we are aware, have realized as much as their projectors hoped. We have always thought that some of these industries might be made successful here, and believe that with proper management they will be. But one must remember that in such undertakings there is much time required usually to find a market for the produce, as it comes into competition with supplies long known to the trade and which thus have an advantage. Capital is also required, and skill, for these special products require special training in manipulation. We believe that patience, perseverance, experience and research will win in this line, but we cannot encourage any one to undertake it unless he is ready to give all of them to the undertaking. We shall be glad to hear from readers on the subject.

## Cotton in Los Angeles County.

**EDITORS PRESS:**—Last spring I procured some cotton-seed from you, and according to promise, I beg to report results:

The soil is a kind of adobe or stiff loam, the ordinary mesa soil of Los Angeles. The excessive rains followed by dry north winds made the land cloddy and hard to work, but it was got into pretty fair tilth. The seed, soaked as directed in the pamphlet, was planted April 14th. The weather remaining dry, some of it never sprouted, but what did come up grew slowly, evidently needing more moisture. It was cultivated once in June. It grew from two to four feet high (one plant only reaching the latter dimension), and blossomed in two colors, some being pink and some yellow; and I noticed that the plants bearing pink blossoms were the larger and had more flowers. The bolls opened in due season and were pronounced very good cotton by those who had seen cotton before. I placed some in the exhibit of the Chamber of Commerce in Los Angeles, but most of it was carried off by children as a curiosity.

The last season was a bad one to test anything, but I judge that cotton would prove a paying crop in this locality, and on mesa land, provided means were at hand for irrigation. Without water it would hardly be a success. —W. F. BRAY, Santa Fe Springs.

## Fruit Driers.

**EDITORS PRESS:**—Having noticed in your number of this date a cut and plans of a spraying apparatus, I have been requested to ask you to publish simple but explanatory diagrams of the various fruit evaporators of considerable capacity, such as are in use in California. This would be a matter of much interest and utility to our horticulturists here, for we have as yet no machine that is satisfactory. Especially would we like to see the plan of one owned and operated by Mr. Blowers of Woodland, Yolo Co. This would be well received here and be of great use; if they are patented, you could say who owns the patent. Respectfully, JOHN SIMPSON, Eugene, Or.

The task of illustrating and describing the fruit driers claimed to be in successful operation in California would be too great for us to undertake. The best thing we can do is to publish our correspondent's full address, so that the parties having patents or machines for sale may submit descriptions and testimonials to him.

## Cloture.

**EDITORS PRESS:**—What is the meaning of the rule cloture, as used in the English Parliament?—OLD SUBSCRIBER, Stockton.

Cloture or closure in parliamentary practice is a method of putting an end to debate and securing an immediate vote upon a measure before a legislative body. It is similar in effect to "the previous question." It was first introduced into the British House of Commons in 1882. The French word *cloture* was originally applied to this proceeding.

**FREE CORN FOR MEXICO.**—The President of Mexico has approved the bill recently passed by the Congress of that republic admitting corn from the United States free of duty.

**STREET TREES.**—The Redlands Horticultural Society has adopted *Acacia Melanoxylon* and *Grevillea* as leading street trees.



## FRUIT MARKETING.

### Bogus California Dried Fruit in the Eastern Markets.

[The following important document was presented at the meeting of the State Horticultural Society, Dec. 26.]

To the Officers and Members of the State Horticultural Society: In accordance with a resolution adopted at the State Fruit-Growers' Convention held at Santa Cruz, Nov. 20, 1890, I transmit to you a report of the remarks made there by Professor Chas. H. Allen, late superintendent of "California on Wheels," on his observations of the condition of California dried fruits as he found them in the Eastern market, and a copy of the report of the committee appended thereto, as follows:

Prof. Chas. H. Allen of San Jose: I accepted the position of superintendent of "California on Wheels" chiefly in the interest of fruit-growing; I wanted to know something of what our fruits were doing East, and I will briefly give you the result of some of my observations. I joined the exhibit train in Northern Wisconsin and at the various places visited I got leave of absence and visited the fruit dealers in the locality, particularly those that were wholesale dealers where the place was large enough, and inquired of them what fruit they were selling, where they got it, what prices they realized, what their criticisms were, if any, upon California fruit. I made it a point in each place to get as much detailed information as I could of that kind. This side of Chicago our fruit, in most of the places I visited, was well known and the market prices and the sale of the fruit seemed to be satisfactory, and as Mr. Buck very tersely stated, the sale is increasing immensely. The world is very large; I come to that conclusion after going over there and seeing the amount of fruit that is wanted, and the demand that is coming on and will continue to come, and I come back with no fear of overproduction. I had had some fears of overproduction, but I am satisfied now that there is no danger of that.

When I got east of Chicago, I found it considerably different; our fruit is almost an unknown quantity to the consumer in intermediate places east of Chicago. We went down on the Baltimore and Ohio, stopping at all those little hamlets and towns of from five to twelve and fifteen thousand inhabitants, and very few there knew California fruit, I mean our dried fruits; they knew something of our green fruits. I found the green fruits on fruitstands everywhere in all those little towns; not of the best quality, but a vast amount of it sold, such as I had hardly expected. There were a dozen fruitstands in every town covered with California fruit. But the dried fruit in most of them was almost an unknown quantity. They would come through the car and would look at our samples of dried fruit (no better than we are exhibiting here and putting up all over the State), and would come back to me and say: "Where can we get that kind of fruit? We have never seen anything of the kind." They came not by ones or twos or scores even, but by the hundreds, and said: "Why don't you people get your fruit out here?" I found that all the way, east of Chicago; every little place that was the cry, all the way through, and until we got into Wheeling and Pittsburgh, where I left the train. Pittsburgh, I believe, is the greatest dried-fruit market in the world, from reasons a gentleman gave me. He said: "Our people are all mechanics; your dried fruit does not sell to bankers and merchants and that class, because they can afford to buy your canned and fresh fruit; it does not sell to the farmer because they raise a little fruit of their own; but here we are all mechanics, as a whole, from Wheeling clear through to Pittsburgh, and they live on dried fruit, and here is where your market is, and we are anxious to learn all that can be learned of your fruit, and to know where it can be had and where we can get such quantities as you are exhibiting here."

I found, as I suppose one might expect to find, knowing the peculiarities of human nature, a good deal of fruit sold as California fruit that was never nearer California than Chicago. I found some exceedingly inferior fruit marked "California Dried Fruit." I went into one large and thriving city and went to a wholesale dealer and in my ordinary way gave him my card and told him what I was doing. We were made very welcome everywhere; they didn't look upon us as drummers at all, but they wanted information; they were anxious to learn. I asked him: "What fruit are you selling from California?"

He said: "We can't sell California fruit; it is poor stuff. I have got a hundred boxes upstairs and they bring it back."

I said: "May I ask permission to look at the fruit?"

"Yes," he said, and he went up with me to the loft, called his man in charge and took down some boxes marked "California Spanish Prunes."

I said: "That is an unknown term so far as I know; I know California pretty well, but I do not know any Spanish prunes. Will you have your man open one of these boxes?"

He opened the boxes and they were, I should judge from appearance, dried Damson plums, all bone except a little skin drawn over, and when you could get anything better, entirely

profit even for swine. I could not see that anybody would ever buy anything of that kind, if they had tried it once. He had a hundred boxes of those that had been sold to him for California fruit. I found that duplicated in a number of places where I looked at the fruit, and knew that it never came from California. Question by Mr. Adams: Is that distributed by any well-known dealer in California fruit?

Professor Allen: It had a name on the outside of the box that I am familiar with.

Question by Mr. Adams: What was it? I think we are entitled to the information; whose name was on the box?

Professor Allen: The man who bought it can give it to you. No, gentlemen, I should be sorry to believe that the brand on the outside of those boxes was put on by the men who deal in that fruit. I believe it was a forgery. I do not believe that Porter Bros. sold fruit that was never raised here and palmed it off for California fruit. I do not believe they did it, and yet their name was there, and I give it with that statement because I know the gentlemen. I believe that the forgery occurred farther East than that. I believe that is where the fruit is put up, and that the fruit is sold all the way through there in that way, spoiling our trade, for anybody who would get one of these boxes would never want any more California fruit. It seems to me there should be some way that we could secure a guarantee that our fruit is genuine, because such practices are largely injuring the trade not only in our dried fruit but in our green fruit. They have constantly sold there an Egg plum for the Silver prune. I found boxes packed by a drier and marked "Egg prunes," and they are selling them as a sweet prune.

I asked a gentleman: "How does the Silver prune sell?" He said: "It is so sour that nobody wants it." I said: "The Silver prune is a sweet prune." He said: "Oh no, it is the sourest thing you ever tasted."

He had bought a large quantity of dried Egg plums which are sour enough to suit anybody, and bought them as "Silver prunes," and supposed he was dealing in Silver prunes. That sort of thing is polluting the demand for California fruit. They do not know what our fruit is, and if in some way we could remedy those things, get this fruit that is well prepared and is suitable for table, and could put it on the market, and in some manner suppress the other, we could not do a better thing for our California fruit industry. Whether this organization can do anything of that kind I do not know, but I did feel very much interested. I felt indignant that we were thus swindled; that we were having palmed off as our California fruit, fruit that was neither grown nor prepared here, and I could see that it was working an injury, so that for years there will be no demand for California fruit in such places.

Question by Mr. Adams: Do you think that that evil of adulteration or fraudulent practice is sufficiently extensive to call for any expression of opinion or any action from any horticultural body in this State, or is it merely a trifling matter which occurred in one or two instances?

Prof. Allen: It was pretty widespread. I will give this as a suggestion, and perhaps a wiser man can work it out. It seems to me if there could be a little pamphlet prepared giving an accurate description of the various brands—not personal brands now, but kinds of fruit—that the dried Prune d'Agen was so and so in appearance, tasted so and so, and the Silver prune was so and so, and the Egg plum and so on, a general description of our dried fruits either with or without cuts—and I do not think cuts would be necessary—if that could be generally distributed throughout the East, it would help to mitigate the trouble.

They seem to be exceedingly anxious, particularly the wholesale dealers there in Pittsburgh, to get into closer connection with the grower. They said: "We do not want to go through all this manipulation; why don't you have some organization there so that we can buy direct and not through the brokers and middlemen?" They say: "Of course we can't buy from individual growers; we don't know you." I returned the compliment and said, "We do not know you." "No," he said, "but you can go to Dunn's Commercial Register and you can find out all about us, and we can't find out anything about you. If we buy of you, we have no guarantee at all. If you can get any organization to give us any guarantee that we can buy direct your California fruit, you will get all our trade." That is one point that may work.

Question by Mr. Adams: I would like to ask the Professor if he thinks they scratch off the names on the boxes.

Prof. Allen: I found boxes that obviously had every trace taken off of the box that was put on by the grower, and nothing that they grow, nothing that my friend Mr. Morrill grows, nothing of that kind that we have supposed was getting a little reputation there, had any name or any traces of any on. They do not know where they come from. All that I found east of Chicago had all been removed and a new stamp put on. I had vainly hoped we would get a little reputation, but there was not anything of that. It was not so in Chicago. I attended the fruit sales in Chicago and I found Mr. Buck's and Mr. Block's fruit sold green with their stamp on; but when we got east of there, the dried fruit is not so sold—it is the name of the broker.

Remarks by Dr. R. H. Claflin of Riverside: I wish to state on this subject that the orange-growers of Riverside have endeavored to solve this problem in this way, by organizing a fruit-growers' association, adopting a trademark, having it registered and having the trademark placed in such a way that when it is placed upon a package, the package cannot be opened without disturbing the trademark. On that trademark is a statement of the place where the fruit is raised and packed, so that any person buying packages with that trademark on will have the guarantee that it is raised and packed there. With that trademark which is established under the signature and authority of the Board of Trade, guaranteeing the reliability of the fruit which is covered by that trademark, it seems to me that that might be done in any place.

Remarks by Mr. Adams: I believe from what Prof. Allen has told me at other times that it is one of the most important subjects that could engage the attention of the fruit-growers here, and I am utterly opposed to bringing up these things and talking about them without trying to do something, and I move that a committee of three be appointed to consider this subject and report thereon. Adopted.

In accordance with the motion, the following were appointed on said committee, viz.: Edward F. Adams, D. M. Locke and Geo. Hummann. The committee, after due consideration of the subject, presented the following report, which was adopted unanimously, to wit:

#### The Committee's Report.

Mr. President: Your committee, to whom was referred the subject of fraudulent sale of Eastern or inferior California dried fruits, under the names of our well-known and first-class products, have had the same under consideration, and beg leave to report as follows:

As to the facts in the matter, our only definite information has been the statements of Prof. C. H. Allen, made to the convention yesterday, of facts which came under his personal observation while at the East in charge of the State exhibit, known as "California on Wheels," which statements will form part of the records of this convention, and need not be fully repeated here; in substance, Prof. Allen stated:

1. That he saw a sour and almost worthless product which he believed to be Eastern dried Damson plums, marked and sold as "California Spanish Prunes," a name of course entirely unknown in this State, and properly representing no fruit of which we have knowledge. In this case the mischief was increased by the fact that the boxes in which this fraudulent fruit was found bore the brand of a firm whose connection with the fruit-shipping interests of this State has been such as to warrant Eastern fruit dealers in supposing fruit sold under their brand to be real California productions, true to name.

In this connection your committee recommend that the Secretary of this convention send a verbatim report of the remarks of Prof. Allen on this particular matter to the firm named by him, with the suggestion that they address to the State Board of Horticulture, a letter asking whether they are selling at the East any dried fruit under the name of "California Spanish Prunes," and if so, to accompany their letter with a sample of such product.

2. That he saw dried Egg Plums sold as "Silver Prunes," and heard them loudly and properly denounced as sour and unpalatable, instead of a sweet prune as had been represented. The casual conversation about this connection leads your committee to believe that this form of fraud is in general practice in the trade, to the very grave injury of the producers of that excellent fruit, the genuine Silver Prune. "Egg Prunes" is another name by which this very sour plum is sold.

3. That from what he saw it is his belief that brands of producers are habitually removed and replaced by the brands of brokers, thus rendering it impossible for the careful and conscientious producer here to obtain any credit for his careful and conscientious work.

Your committee respectfully suggest that brands of this kind are to be expected to the injury of any business which becomes successful, and that the only possible remedy is the simple one usually adopted in other lines of business, of promptly exposing the swindlers and warning the people against their practices.

Your committee is using this language advisedly, as more closely than any other expressing their precise meaning; whoever sells some unknown product, as "California Spanish Prunes," instead of giving the product its true name; or calls "Egg Plums" "Egg Prunes," when there is no prune called the "Egg Prune," or knowingly sells Egg Plums under the name of "Silver Prunes," is a deliberate swindler; and no custom or competition can any more justify such practices than the custom of other criminals can justify them in committing the crimes to which they may be addicted.

Your committee suggest that the proper remedy for this state of things is publicity. It can probably be stopped by maintaining standing yearly advertisements, for a year or two to come, in the leading newspapers of the principal Eastern sections, calling attention to these frauds and warning the people against them. Any experienced business man can very soon put a stop to the business if the fruit-growers will give him the money to do it. If not prepared to put up the money to pay for exposing the rascals, the matter may as well be dropped. We can no more get rid of these pests without

expense than we can exterminate without cost the burrowing gophers whom they resemble.

Touching the practice of erasing producers' marks and substituting those of brokers, the only remedy is by advertisement, to educate consumers to demand dried fruits in original packages with producer's name, and to mark the packages by actual branding or other indelible mark. The organization of the California Dried Fruit Union, which is apparently not likely to prosper as a shipper of fruit, might be utilized by employing it to adopt a trademark and sell the branded box ends to members only, the association protecting itself by accepting as members only those who were properly vouchered for as honest men and who would in addition give written pledges of strictly complying in their packing with specified rules.

Rigid integrity and fair dealing is certain, if steadily pursued, to bring its proper reward; so is the opposite; and as no matter who it is that sells had fruit under our name, the California producer is certain to get the discredit of it, it is of the utmost importance that we take all steps necessary to protect ourselves. As this work can be properly done only by a permanent body, your committee recommend that the secretary of this convention be instructed to transmit to the State Horticultural Society, a copy of the remarks of Prof. Allen, and of this report, with the request of this convention that the society investigate the subject and take such measures in relation thereto as the facts may appear to demand.

Respectfully submitted,

EDWARD F. ADAMS,  
D. M. LOCKE  
GEORGE HUMMANN,

Committee.

In accordance with the recommendation in the above resolutions and action of the convention, I have addressed a letter to Porter Brothers, of Chicago, in which these facts have been fully set forth, and expect very soon to receive from them an explanation, which I will lay before you at your next meeting.

Respectfully submitted,

B. M. LELONG,

Secretary State Board of Horticulture, and of State Fruit-growers' Convention.

This matter was presented at the meeting of the State Horticultural Society on December 26th, and elicited discussion. Finally a committee composed of A. L. Bancroft, E. F. Adams and J. L. Mosher was appointed to consider the points advanced, and to report concerning action desirable by the State Horticultural Society.

#### Census Changes.

A recent bulletin from the office of the Commission of Census shows that the relative standing of the different States has been changed from 1880 as follows:

Illinois has advanced from 4th to 3d; Massachusetts from 7th to 6th; Texas from 11th to 7th; Georgia from 13th to 12th; Wisconsin from 11th to 14th; New Jersey from 19th to 18th; Kansas from 20th to 19th; Minnesota from 26th to 20th; California from 24th to 22d; Arkansas from 25th to 24th; Nebraska from 30th to 26th; West Virginia from 29th to 28th; Colorado from 35th to 31st; Florida from 34th to 32d; Washington from 42d to 34th; Montana from 45th to 44th; Idaho from 46th to 45th.

Ohio has dropped from 3d to 4th place; Indiana from 6th to 8th; Kentucky from 8th to 11th; Tennessee from 12th to 13th; Virginia from 14th to 15th; North Carolina from 15th to 16th; Mississippi from 18th to 21st; South Carolina from 21st to 23d; Louisiana from 22d to 25th; Maryland from 23d to 27th; Maine from 27th to 30th; Connecticut from 28th to 29th; New Hampshire from 31st to 33d; Rhode Island from 33d to 35th; Vermont from 32d to 36th; District of Columbia from 36th to 39th; Oregon from 37th to 38th; Delaware from 38th to 42d; Utah from 29th to 40th; New Mexico from 41st to 43d; Nevada from 43d to 49th; Arizona from 44th to 48th.

Dakota, which ranked as 40th in population in 1880, has been divided, and South Dakota now ranks as 37th and North Dakota as 41st. Oklahoma has been created a Territory and now ranks as 46th. New York remains at the top, and the State of Nevada drops to the foot of the ladder, having fewer people than the Territories of Arizona, Utah, New Mexico and Oklahoma.

MORE than half the railway track in the world is on this continent, and nearly half of the whole is in the United States. This proportion may or may not be kept up, as Asia and Africa are beginning to shorten their long distances by using steam bores on the iron track. In the past four years 40,000 miles of track have been laid in America, and in the United States 30,000 miles of this, while all the rest of the world built only 24,000. Railroads in Europe cost an average of \$115,000 per mile. Here the average cost is \$60,000, and this is about the rate elsewhere. Rates of fare are, however, lower in Europe than here, the denser population and lighter expense for running the roads more than offsetting the difference in their original cost.

It is claimed by reliable persons on the ground that there are more than 30,000 destitute people in Oklahoma.



## AGRICULTURAL NOTES.

## CALIFORNIA.

## Amador.

**OLIVES.**—Jackson *Ledger*, Dec. 20: L. Foster gathered his crop of olives last week and manufactured them into oil. The two trees which he has on his ranch have this year yielded about 150 pounds of fruit. However, a great many of them were pickled, and the oil extracted from only 50 pounds, as a mere experiment. The result was very satisfactory. The olives were crushed in an old-style wooden roller grape-crusher, it being so set as to break the berry but not the pit. The pulp was next placed in a jute-sack, and that into a wine-press. After the first pressing the sack was removed, hot water added, and after standing for several hours, again pressed. The yield of oil was about the same each time, but the latter proved of inferior quality. The oil readily separates from water and sediment by placing the liquid in tin vats and allowing it to stand for some days. Mr. Foster secured something over a dozen large-sized bottles of excellent oil. The flavor is equal to the finest grades of imported oil, and the color about the same. The pickles put up are green, such as are seen in the markets. The ripe olives are too delicate and perishable for a commercial article, though much superior in quality. Mr. Foster and Mr. Holsinger, who own adjoining ranches, will each put out between 1500 and 2000 outtings in January.

## Kern.

**INCREASING CULTIVATION OF THE ORANGE.**—Bakersfield *Californian*, Dec. 27: Branches of orange trees loaded with the golden fruit were extensively used in our Christmas decorations. They came from different parts of the valley, frequently from places where we had not suspected the existence of oranges before, indicating that there has been more experimental and widely extended culture of this fruit than was generally known. The oranges were of a superior quality.

## Los Angeles.

**ORANGE SALES.**—Alhambra *Review*, Dec. 20: A few of our orchardists have sold their oranges at a good price, but the majority appear to be in no haste to dispose of their fruit. It seems to be generally expected that prices will rule higher here than last year.

## Monterey.

**MONTEREY COUNTY COTTON.**—Salinas City *Index*, Dec. 25: A sample of cotton raised in the Gabilan foothills, bordering the Salinas valley, near Gonzales, was presented to the *Index* by J. R. Hebborn. The bolls are of fair size and the quality is pronounced by experts to be excellent. It is among the possibilities that cotton-growing will become an important industry in Monterey county.

## Napa.

**HOP-RAISING.**—St. Helena *Star*: The hop-raising industry is not one of very great importance in Napa valley, the low prices making it unprofitable and it having almost entirely given way to the wine industry. But there are still a few hopyards left, and should the prices rise to a good figure the industry may yet be one that will encourage others to engage in it. In 1865 A. Clock, one of the early settlers of St. Helena and a man of thrift and enterprise, planted the first vines near David Cole's place on Pope street. He was successful in the industry and his yards were very fine, as were his hops. In 1876 he sent a sample to the Centennial Exposition in Philadelphia and received the first prize, the hops being considered of a very excellent quality and far superior to any on exhibition. As time rolled on and the industry became less and less profitable, and as that of wine sprang prominently before our people, vines were pulled up, the poles sawed into stovewood, vineyards set out and wine-cellar built. At present there are not more than fifty acres of hops within several miles of St. Helena. Those, however, are healthy and yield about 2000 pounds per acre, and when prices are good it will readily be seen are paying pieces of property. The fact of there not being many hopyards in the valley does not signify that the land and climate are not suitable to that industry; on the contrary, the soil along the banks of Napa river is exceptionally fine for that purpose and none better can be found anywhere in California.

## Nevada.

**EXTENSIVE TREE-PLANTING.**—Grass Valley *Tidings*, Dec. 26: Recently an agent of the largest and oldest established orchard in Oregon, at Woodburn, sold between 8000 and 10,000 trees to growers in this county, of which 5000 or 6000 were delivered at the Grass Valley depot Thursday and 3000 or 4000 at Nevada City. It is claimed for these trees that they were raised in a colder climate than here and hence are hardier, and that they bear no injurious insects, neither scale nor codlin moth being known in Oregon. The bulk of the importation is made up of pears, apples, peaches, plums and prunes; also apricots, nectarines, cherries, chestnuts, walnuts and almonds; and in addition are strawberry, raspberry, blackberry, gooseberry, currant and even cranberry plants and bushes. Several thousand trees coming from other nurseries will also be planted.

## Placer.

**MORE GRAIN SEEDING.**—Auburn, Dec. 25: Roseville farmers are all plowing and say they

never had a better season than this for that work. The acreage already sowed is as large as the total area of grain in that district last season. Robert Theille had 50 acres of summer-fallow in last Friday and will sow about 100 acres more. James Astill will put in 160 acres of wheat, 40 of barley, 40 of oats, and 100 acres of hay. A. J. Sprague will put in about 200 acres of grain, and altogether the acreage will be three or four times greater than last year.

**OLIVE YIELD.**—Auburn *Republican*, Dec. 24: Pressing out olive oil is in progress at the Roberson ranch near Auburn. Mrs. Roberson is making careful tests of the yield and quality obtained from the different varieties, as there are over 20 kinds of olives on the place, the principal being the Picholine. From this variety she is obtaining about 15 per cent of oil at the first pressing, with a prospect of about 3 per cent at the second. This is better than has ever been done at Santa Barbara. The foothills is the place for the olive.

## Sacramento.

**PROSPERITY AT VINA.**—Sacramento *Record-Union*, Dec. 25: Capt. McIntyre, superintendent of Senator Stanford's famous vineyard and winery at Vina, was in town yesterday. He reports a most prosperous state of affairs at the vineyard. During the season just closed, 11,000 tons of grapes were crushed for the still, and several carloads of raisins were shipped to the Eastern markets.

## San Benito.

**LARGE VINEYARD.**—Hollister, Dec. 26: Nine miles from Hollister are located the celebrated orchard and vineyard of Wm. Palmtag. This extensive and highly cultivated place shows what industry and enterprise can accomplish in these chemical-covered hills. This is no experiment, for it is one of the oldest vineyards in the State. In 1852, Theophile Vache, a French vintner, secured this tract from Monterey county and set out a small vineyard, but kept increasing his area until 1883, when he had 50 acres of bearing vines, and during most of these years he had manufactured wines which bore a State-wide reputation. In 1883, Mr. Palmtag, the present proprietor, purchased the place and commenced clearing the land adjacent to the vineyard already planted, until at present there is a vineyard of 150 acres covering hillside and valley. Among the varieties of grapes grown we may mention: Burgundy, Zinfandel, Cabernet, Sauvignon, Cabernet Frsno, Cabernet Pfeffer, Grosse Verdot, Carbone, Mataro, Malvec, Malvoisie, Mission, Pinot, Muscatel, Muscat of Alexandria, Malaga, Emperor, Morocoo, Black Hamburg, Flame Tokay and Rose of Peru. Besides these are a number of varieties which Theophile Vache imported from France years ago, the names of which are not known. Although so much attention is paid to vines, there is not a tree fruit that is not grown and which does not develop perfectly. Apples, peaches, pears, plums, prunes, spricots, cherries, oranges, olives, figs, all varieties of small fruits, every description of "garden truck," while corn was planted, grew and developed to perfection this season all along the hillside and even to the very summit of the hills—this, too, without irrigation.

**A FEW SAMPLES OF FRUIT PROFITS.**—Hollister *Free Lance*, Dec. 26: In order to show what are the actual profits in fruit-raising in California, we give below the following figures: Peaches, Ernest Dewey, Golden Cling peaches, 10 acres, seven years old, produced 47 tons green; sold dried for \$4800; cost of production, \$243.70; net profit, \$4556.30. Soil, sandy loam; not irrigated. H. H. Rose, 2.67 acres; produced 47,543 pounds; sold for \$863.46. Soil, light, sandy loam; not irrigated. Produced in 1889, 12,000 pounds, which sold at \$1.70 per 100 pounds. E. R. Thompson, 2.16 acres, 233 trees, produced 57,655 pounds, sold for \$864.82; cost of production, \$140; net profit, \$724.82. Soil, sandy loam; irrigated three times in summer, one inch to seven acres. Trees seven years old, not more than two-thirds grown. P. O'Connor, 20 acres, produced 4000 pounds, sold for \$60; cost of production, \$5; net profit, \$55. Soil, sandy loam; not irrigated. Crop sold on ground. P. O. Johnson, 17 trees, ten years old, produced 43 tons; sold 4 1/2 tons for \$120; cost of production, \$10; net profit, \$110; very little irrigation. Sales were one-half cent per pound under market rates. Prunes, E. P. Naylor, 15 acres produced 149 tons; sold for \$7450; cost of production, \$527; net profit, \$6923. Soil, loam, with some sand; irrigated one inch per ten acres. W. H. Baker, 1 1/2 acres produced 12,529 pounds; sold for \$551.90; cost of production, \$50; net profit, \$501.90. Soil, sandy loam; not irrigated. W. A. Spaulding, one-third of an acre produced 10,404 pounds; sold for \$156.06; cost of production, \$10; net profit, \$146. Soil, sandy loam. E. A. Hubbard, 4 1/2 acres produced 24 tons; sold green for \$1080; cost of production, \$280; net profit, \$800. Soil, dark, sandy loam; irrigated. This entire ranch of nine acres was bought in 1884 for \$1575.

## San Bernardino.

**THE RAISIN PACK.**—Riverside *Horticulturist*, Dec. 27: The total number of pounds of raisins shipped from Riverside this season is 4,447,890, with 12,000 pounds yet to ship. The crop brought over \$250,000 to the raisin-growers of the valley. This is very good, considering the rain.

## San Diego.

**PLOWING AND SEEDING.**—Olay *Press*, Dec. 25: The work of clearing, plowing and planting goes on on every hand, and people have stopped waiting for something to turn up, and

have gone to work turning up the mellow soil. Most of the farmers on the mesa have their grain sown. W. Lohman has in 80 acres, F. W. Lohman has sown 300, and James McCool expects to have in 400 acres before the season closes.

## San Luis Obispo.

**SORGHUM-CANE GROWING.**—Arroyo Grande *Cor. S. L. O. Tribune*, Dec. 24: Since it has been announced that sugar can be made from sorghum cane by a celebrated Government chemist, by means of alcohol and very cheaply, many of our farmers contemplate going into raising cane.

**FRUIT TREES AND VINES.**—Creston *Cor. S. L. O. Tribune*, Dec. 26: The best and most practicable thing that a prospective orchardist can do is to thoroughly post himself in the nursery business and grow his own trees and vines. For a reliable work on tree-growing, he should get the book of "California Fruits and How to Grow Them," wherein he would learn the whole modus operandi, from the planting of the seed, its care and culture, to the gathering and marketing of the perfect fruit, and by getting this work, reading and practicing its rules, he would not be dependent on nurserymen and tree peddlers, but would find himself independent of all of them, saving thereby, by growing his own nursery stock, from 100 to 500 per cent.

**EXTENSIVE GRAIN SEEDING.**—Creston, Dec. 25: Seasonable rains have put the land in the best condition for plowing. The farmers in general throughout this section declare that the land never has been in better condition for working. A larger acreage is going to be put into grain this season than heretofore. Every rancher is whooping the work up for all it is worth, and many of them are striving to make a grand windup of seeding for this season's crop by New Year's Day.

## Santa Clara.

**ACTIVE PLOWING.**—Guthrieville *Cor. San Jose Times*, Dec. 25: From the activity of many plows now at work, the fields are rapidly changing color. The present weather is most thoroughly appreciated by the farmers of this locality, as early seeding usually means successful crops.

## Shasta.

**GROWING FRUIT SECTIONS.**—Anderson *Enterprise*, Dec. 25: W. S. Wilcox, the owner of one of the most valuable farms in Northern California, situated on Battle Creek, will plant this season 15 or 20 acres of Bartlett pears and peaches and 10 acres of Proporturien walnuts. It is on his land that the famous Chinese peach orchard and vegetable gardens are located, from which, the third year from planting, the Chinamen took \$250 worth of peaches from each acre, and each year since (having been there seven years), they have derived a large income over and above the rent of the land. They have yet five years of the lease before they deliver their fine orchard to Mr. Wilcox. Opposite to the latter's place, E. F. Howell will plant 15 or 20 acres to various varieties of different kinds of fruit, but principally the French prune.

## Sonoma.

**THE FIRST ORANGES.**—Cloverdale *Reveille*, Dec. 20: The first oranges ever placed on the market that were grown in Cloverdale will be sold at M. S. Connor's. Mr. Connor bought the crop grown by Jno. Field from about 25 trees which are five years old, and will have them for sale during the holidays. The crop consists of about 1000 pounds, and are pronounced to be of better quality than any orange ever brought to this market from the southern district.

## Sonoma.

**MEADOW LAND BEING RECLAIMED.**—Sonoma *Index-Tribune*, Dec. 27: Bordering the shores of San Pablo bay and Sonoma creek is a vast body of rich alluvial land that is subject to overflow. This land embraces an area of nearly 100,000 acres and if reclaimed and put under a state of cultivation is capable of supporting a population of many thousands. Small patches have been reclaimed here and there for a season on the west side of Sonoma creek and planted to wheat and barley. The result was astonishing, as high as 70 bushels of the latter having been raised to the acre in a season that was considered a dry one in the great wheat-producing valleys of California, and where the crops were almost a total failure. These meadow lands of Sonoma are not only adapted to the raising of cereals, but are capable of producing immense crops of fruit, berries and vegetables, and for dairying purposes are much sought after and highly prized by our Swiss dairymen, who claim that butter and cheese made from the milk of cows that have been pastured on the native grasses of these meadow lands command a higher price, on account of the excellence of the product, than those made at dairies located in other sections of the State. W. B. Pless, the inventor of one of the greatest labor-saving machines designed for the reclaiming of overflowed lands that has ever been given a practical test, knowing the fertility of the Sonoma meadow lands when once reclaimed from the encroachments of the waters from Sonoma creek and San Pablo bay, has succeeded in interesting Senator John P. Jones, a large owner of these lands, in his invention. Last June Mr. Pless commenced work on the body of land belonging to the Senator, consisting of some 12,000 acres. In the seven months that Mr. Pless has been pursuing his dredging operations he has constructed a levee on the west side of Sonoma creek 7 1/2 miles long, 8 feet

high and of an average width of 60 feet, and has reclaimed 1500 acres. All this work has been accomplished by his wonderful dredger, manned by only four men on double shifts, the dredger running night and day. Mr. Pless by his invention and a six-months' practical test on Sonoma creek, has made possible the reclamation of every acre of our overflowed lands. He is now at work on a model for a dredger that will do just twice the amount of work of the one which he is now using.

**PROFIT IN POULTRY.**—Sonoma, Dec. 27: J. S. McClemmy, lessee of a small farm on the Buena Vista tract, has raised the past year 527 chickens and 217 turkeys. Of the chickens, 317 are laying hens, which, with eggs at 40 cents per dozen, the present market price, net a nice little sum daily. The chickens and turkeys were raised with very little care and attention. To the question as to whether the raising of poultry will pay in Sonoma valley, Mr. McClemmy's experience, we are sure, answers the question in the affirmative.

## Sutter.

**LARGE SALE OF WHEAT.**—Yuba City *Farmer*, Dec. 26: The Farmers' Union last week sold to the Buckeye Mill Co. 420 tons of wheat. The wheat was the property of Geo. Harter, and the larger part of the lot had been carried over for three years. The price received, we are informed, was \$1.15 per cental.

## Tulare.

**PRUNE ORCHARDS.**—Fresno *Republican*, Dec. 26: F. Comings, the prominent fruit-grower of San Jose, has come to the conclusion that the lands in the San Joaquin valley, especially when not too far distant from the foothills, are better adapted to the prune than the Santa Clara valley. He has just bought 160 acres near Kaweah, on the Porterville branch railroad, and will set out the entire tract to prunes. Other San Jose fruitmen have recently bought lands in Fresno and Tulare counties and will plant large prune orchards.

## NEVADA.

**THE CATTLE INDUSTRY.**—Reno *Gazette*, Dec. 25: For five years stock cattle have been going down, and beef has kept pace with the downward tendency until it is poor encouragement for stockmen to pay much attention to fattening cattle. The ranges in this State, those in Southern Oregon, and in the counties of Lassen, Modoc and Sierra in California, met with such heavy losses last winter that this State and the sections alluded to above will not have the usual quota of beef to market this year. It will take the stockmen fully five years to recover from the loss of last winter, and it is very doubtful if ever again Nevada will support as many cattle as she has in the past. A year ago last winter, Montana lost fully 50 per cent of her cattle, and last winter a fourth of the cattle in this State died. We look for a material advance in cattle of all grades throughout the country the coming year. As the land becomes settled up, the ranges are necessarily curtailed, and there will not be range for such large herds to be successfully handled by one man. The large abattoir now being constructed near Port Costa, Cal., will take 800 head of beef of all grades per day. San Francisco and Oakland now take about 400 daily. This enterprise will make a market for all the range cattle the country produces, so that stockmen can keep their herds cleaned up. Every animal that could possibly be beefed has been taken to the shambles in the past five years, and is it a wonder that that article of food has been low?

## Complimentary Samples.

Persons receiving this paper marked are requested to examine its contents, terms of subscription, and give it their own patronage, and as far as practicable aid in circulating the journal, and making its value more widely known to others, and extending its influence in the cause it faithfully serves. Subscription, paid in advance, 5 mos, \$1; 10 mos., \$2; 15 mos., \$3. Extra copies mailed for 10 cents, if ordered soon enough. If already a subscriber, please show the paper to others.

"Now is the winter of our discontent made glorious summer" by Ayer's Sarsaparilla. This wonderful medicine so invigorates the system and enriches the blood that cold weather becomes positively enjoyable. Arctic explorers would do well to make a note of this.

Spring is Coming—Planting Time is at Hand.

If you are thinking of planting Roses, Hardy Shrubbery, Climbing Vines, Bulbs or Seeds of any kind, write The Dingee & Conard Co., West Grove, Pa., for their New Guide—124 pages beautifully illustrated—free on application. This house is well known as one of the most popular and reliable in the country. They make a specialty of all the Newest and Choicest Roses, New Hardy Plants, New Bulbs, New and Rare Flower and Vegetable Seeds of all best kinds—almost every thing you can need for home planting is offered post-paid to your door. Satisfaction guaranteed. Address The Dingee & Conard Co., West Grove, Pa., and please mention this paper when you write.

## "It Can't Be Beat."

SAN FRANCISCO, CAL., Dec. 11th, 1890. LAWRENCE, WILLIAMS & Co., Cleveland, Ohio—GENTS: Will say we received your letter the first of Nov. in reference to your Gombault's Caustic Balsam, but as we had changed foreman at stable, could not tell anything about the merits of same, so we went and bought a bottle of it and have tried the same; for blistering it can't be beat; for common use he says it is too strong, but he thinks to reduce as directed it will be splendid and is going to try the same reduced. Resp. yours, FARNSWORTH & RUGGLES.



## Agriculture in Mendocino County.

EDITORS PRESS:—The year in Mendocino county has been one of varied fortunes. The rainfall, always abundant with us, was excessive last winter, and there was much snow in the northern valleys. The stock interest is paramount in the Little Lake, Sherwood, Long, Round and Eden valley sections, the mountains being in large sheep and cattle ranges, and the valley lands either forming part of the ranges or growing hay or grain, which finds a market with the grazers. The losses of cattle and sheep were very great. Hay was bought of the valley farmers at high prices, to try to winter the stock, and at heavy original cost and for hauling. The good prices for wool could not begin to replace losses, and besides the range interest had not been prospering for years. Their land was bought when at high prices, and cost too much to be used profitably at current prices for wool. The prices for grazing lands are getting lower now and will in a year or two be down to living rates. The country along the railroad, from Cloverdale to Ukiah, is in a transition state of farming. Formerly it was all hops, hay and grain. Fruit is now being planted largely at the expense of the grain acreage. French prunes and Bartlett pears are almost the only sorts planted, and both grow finely and produce a superior quality of fruit in this section. The acreage of hops decreased during the years of low prices, but for several years has remained about stationary. This year's crop was a little below the average in quantity, but of fine quality. But few were contracted, and the bulk of the crop sold in the neighborhood of 30 cents. Nearly all are now out of growers' hands. Several growers, L. F. Long among others, made trial shipments direct to London with satisfactory returns. The hop crop of the county, mostly from the Sanel, Ukiah and Redwood valleys, sold for about \$300,000. The hop-growers are very enterprising, and the kilns are of the most approved patterns. The most of the growers are not speculators, but men who have stayed with hops for years and made money out of them in the long run.

Six or eight miles above Ukiah, the railroad terminus is Calpella, in Redwood valley. Here is a large body of land mostly in benches and low hills, covered with fir, oak, madrone and manzanita, and very similar in character to the Swiss-Italian colony lands below Cloverdale. This section is being sold in small tracts and is fast settling up with a thrifty class. Vines do unusually well on the hills, as do all fruits, and the brushy lands seem the best. Anderson valley, with its lower end called Christine, is an old, well-tried fruit country, producing most fruits in good quality and apples hard to excel. Here fruit-growing is extending rapidly. They are 30 to 40 miles from a railroad, but are solving the problem by building evaporators and drying the fruit. With lumber at \$10 to \$12 for rough redwood at their very doors, building is cheap there, and the valley is certain to settle up very rapidly with a fruit-growing population. There is a fair local market for fresh fruit to the lumbering section on the coast at Navarro, Mendocino City, etc. The coast section is given up to lumbering, but the agricultural interest is steadily increasing as the woods are cleared.

At Point Arena is a fine dairy section. Cuffey's Cove and Ten-Mile river grow large quantities of potatoes, while all along the coast a farming population finds at the mills a ready market for hay and produce. Throughout the county, the hay and grain crops were short. Almost all grain is winter sown, and hay volunteer or grain sowed. Land stayed so wet that much could not be plowed till April. A great deal went into corn and produced good crops, but both hay and grain are insufficient for home consumption.

Ukiah. CARL PURDY.

Whooping cough, croup, sore throat, sudden colds, and lung troubles peculiar to children, are easily controlled by promptly administering Ayer's Cherry Pectoral. This remedy is safe to take, certain in its action, and adapted to all constitutions.

The German Savings and Loan Society,  
526 California Street.

## DIVIDEND NOTICE.

FOR THE HALF-YEAR ENDING DECEMBER 31, 1890, a dividend has been declared at the rate of five and forty-hundredths (5 40-100) per cent per annum on Term Deposits, and four and one-half (4 1/2) per cent per annum on Ordinary Deposits. Payable on and after FRIDAY, January 2, 1891.

GEO. TOURNEY, Secretary.

## SAN FRANCISCO SAVINGS UNION

532 California Street, Corner Webb;  
Branch, 1700 Market Street, Corner Polk.

FOR THE HALF-YEAR ENDING WITH 31ST DECEMBER, 1890, a dividend has been declared at the rate of five and four-tenths (5 4-10) per cent per annum on Term Deposits and four and one-half (4 1/2) per cent per annum on Ordinary Deposits, free of taxes, payable on and after FRIDAY, 2d January, 1891.

LOVELL WHITE, Cashier.

## ANNUAL MEETING.

THE REGULAR ANNUAL MEETING OF THE STOCKHOLDERS OF THE GRANGERS' BANK OF CALIFORNIA, for the election of Directors for the ensuing year, will take place at the office of the Bank, in the City of San Francisco, State of California, on TUESDAY, the 13th day of January, 1891, at one o'clock P. M.

For Grangers' Bank of California,  
ALBERT MONTPELLIER,  
Cashier and Manager.

FOR DYSPEPSIA,  
Ayer's Sarsaparilla

Is an effective remedy, as numerous testimonials conclusively prove. "For two years I was a constant sufferer from dyspepsia and liver complaint. I doctored a long time and the medicines prescribed, in nearly every case, only aggravated the disease. An apothecary advised me to use Ayer's Sarsaparilla. I did so, and was cured at a cost of \$5. Since that time it has been my family medicine, and sickness has become a stranger to our household. I believe it to be the best medicine on earth."  
— P. F. McNulty, Hackman, 29 Summer st., Lowell, Mass.

FOR DEBILITY,  
Ayer's Sarsaparilla

Is a certain cure, when the complaint originates in impoverished blood. "I was a great sufferer from a low condition of the blood and general debility, becoming finally, so reduced that I was unfit for work. Nothing that I did for the complaint helped me so much as Ayer's Sarsaparilla, a few bottles of which restored me to health and strength. I take every opportunity to recommend this medicine in similar cases."  
— C. Evick, 14 E. Main st., Chillicothe, Ohio.

## FOR ERUPTIONS

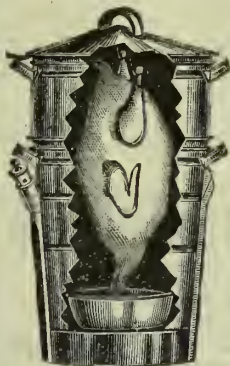
And all disorders originating in impurity of the blood, such as boils, carbuncles, pimples, blotches, salt-rheum, scald-head, scrofulous sores, and the like, take only

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DR. J. C. AYER & CO., Lowell, Mass.

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CAUSTIC BALSAM.

A Safe, Speedy and Positive Cure for Curb, Splint, Sweny, Capped Hock, Strained Tendons, Founder, Wind Puffs, all Skin Diseases or Parasites, Thrush, Diphtheria, Pinkeye, all Lameness from Spavin, Ringbone or other Bony Tumors. Removes all Bunches or Blemishes from Horses and Cattle. Supersedes all Caustery or Firing. Impossible to Produce any Scar or Blemish.

Every bottle sold is warranted to give satisfaction. Price \$1.50 per bottle. Sold by druggists, or sent by express, charges paid, with full directions for its use. Send for descriptive circulars. Address  
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## THE SUCCESS TRAP

Will hold Animals from a Gopher to a Coyote.  
Price for 30 days, postpaid, 25 cents. One dozen, \$2.00.  
SUCCESS TRAP CO.,  
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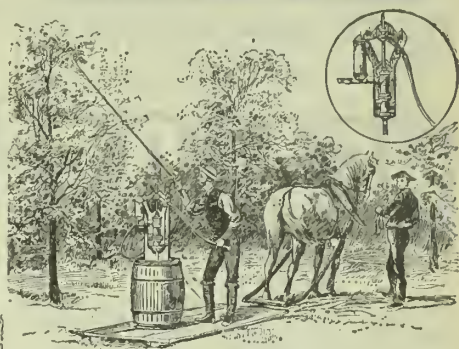
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GEO. O. ROEDING, MANAGER, FRESNO, CAL.

## SPRAY PUMPS!



Star Spray Pump.



The Goulds Spray Pump.

WITH BAMBOO EXTENSION ALL FITTED UP. COMPLETE WITH HOSE, BARREL AND SPRAY NOZZLE. These cuts show in faithful operation our Gould's and Star Spray Pumps. They are utilized for spraying Fruit Trees, Orange Groves, Vines, and in fact, all trees or shrubbery infested with the destructive insects which infest and do so much injury to Orchards, Vineyards, Orange Groves, etc. They are made entirely of brass, with the exception of frame and handle, and are strong and heavy; the valves being made entirely of metal or rubber, and will not be affected by the corrosive solutions such as Caustic Soda Acids, Lye, or any other solution that may be used to kill the destructive insect. Send for Special Circular and Prices of Spray Pumps. NOTICE.—ONGERT'S LIQUID TREE PROTECTOR is the best Spray for killing Red Scale, Black Scale, White Cuckoo Cottony Scale, San Jose Scale, or any other insect. Send for Special Circular.

WOODIN & LITTLE.

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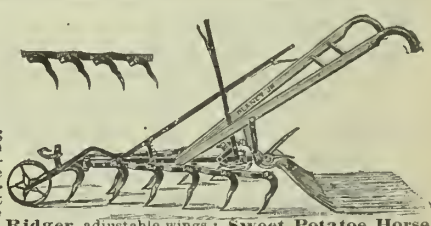
Sugar Chemists, Enigneers and Draughtsmen, and Practical Manufacturers of Beet Sugar.  
ALVARADO, CAL.

The members of this firm have spent many months in the largest beet sugar factories of Europe, studying the details of German and French methods of manufacturing sugar from beets, and also at works of the leading manufacturers of beet sugar machinery. Having had many years' experience in manufacturing sugar from beets in California, and having fully demonstrated the feasibility of producing sugar from beets in this country in almost unlimited quantities, and in successful competition with cane sugar imported from foreign countries, we are prepared to furnish designs for factories, plans and drawings of the latest improved machinery now in use in Europe and this country. Can also furnish skilled engineers to superintend the construction of factories, and the necessary technical skill to operate the works successfully when completed. Will make personal examination of localities with regard to their fitness for the production of beet sugar, free of expense, except traveling expenses. Successful results guaranteed when the conditions are considered favorable.

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Tools for 1891.

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It can be prepared to suit any land, with or without potash, as occasion may require. It is rich in PHOSPHORIC ACID, and can be made as rich in NITROGEN as the most deficient soil may exact.

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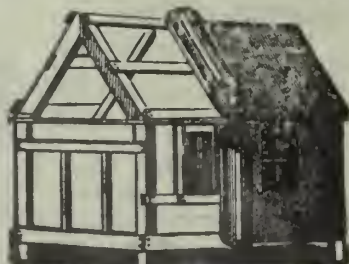


This is an apparatus for burning straw and sulphur and also forces the fumes down their holes which never fails to kill. I will give \$100 in case the exterminator does not kill (if properly applied) every ground squirrel that its deathly fumes come in contact with. Thousands are in use. Price \$3.00. Send for circulars to

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THE GREATEST DISCOVERY OF THE  
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Silver Medal Awarded by the State Fair of 1890.

This preparation is a Sure Destroyer of the SCALE, WOOLLY APHIS and INSECT PESTS of any and all descriptions. It may be as freely used in the conservatory, garden or greenhouse as in the orchard or vineyard. It is non-poisonous and harmless to vegetation when diluted and used according to directions. It mixes instantly with cold water in any proportions. It is SAFE, SURE and CHEAP. No Fruit-grower or Florist should be without it. Send for Circulars and Price List.

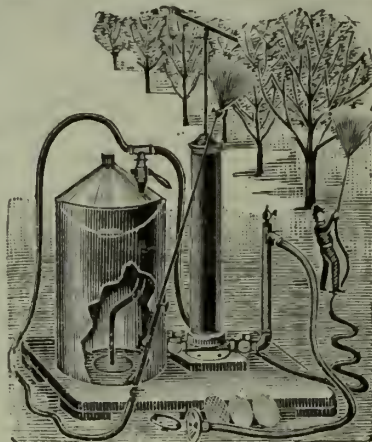
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SIX CASH PRIZES, SILVER MEDAL AND A DIPLOMA at the late State Fair for the best Spray Nozzles and Spraying Apparatus. Complete outfits, prices from \$3 to \$90. Send for Circular and Price List. Wm. Wainwright, No. 10 Hayes Street, San Francisco.



## Acme Spray Pump.

This is a strong, light bucket pump, and is just what has been needed by small Orchardists, Farmers, Stock and Poultry Raisers. This pump will stand a pressure of from 50 to 75 lbs. to the square inch. When charged it will keep up a continuous spray from 5 to 15 minutes, without pumping, according to the amount of air in the reservoir.

Sample pump sent complete for Spraying, with Suction Hose, Strainer, Discharge Hose, Rod, one Line and one Chemical Nozzle, for \$13. All my pumps have brass and Rubber Valves.

Spray Rods made to spray, from the ground, from 1 foot to 30 feet high and at any angle.

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Is certainly the best preparation of its kind in the market. Ranchers, Stock Raisers and Horse Owners of every description will tell you that it does good work every time.

Messrs. H. H. Moore & Sons, Stockton, Cal.—GENTLEMEN: In answer to your inquiry, would state that I used your H. H. H. Liniment on my Holland prize-winning cow, "Lena Menlo," for a wrenched shoulder, and it relieved her very much. She calved the next day, and while still suffering from the sprain gave the largest authenticated quantity of milk ever given on this coast (104 gallons per day), showing conclusively the great relief received from your remedy. I consider it a necessity in my stables, and when away from home feel perfectly safe, as inexperienced men can do no harm with it, as they can with the more powerful blisters. Respectfully yours,  
FRANK H. BURKE,  
Breeder of Registered Holsteins and Berkshires.  
Menlo Park, Cal., January 22d, 1889.

MANUFACTURED BY

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CHEAPER THAN SHINGLES OR METAL And Lasts Longer.

Insurance Companies make no discriminations. Can be laid over old shingles or metal roofs. One man and boy can lay from 1000 to 1500 feet per day. The cheapest thing in the market for barns, ice-houses and outbuildings.

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Santa Barbara County Notes.

EDITORS PRESS:—The winter season has so far been very propitious for the farming interests, the rain of a couple of weeks ago having been efficient (three inches) to start the plows and grain-seeding for hay and grain. Since then we have had warm growing weather, and the grain is coming up finely. Farmers are generally keeping the weeds down with cultivators and harrows, thus saving plowing two or three times during the season, and also keeping the moisture which would be absorbed if weeds were allowed to grow. Thus a crop can be grown with a very scanty rainfall. Grass on the ranges is growing well and stock will soon be doing well. On account of no spring rains, feed was short this fall and stock in many places got quite thin. Hay was very high, reaching \$20 a ton just before the storm of two weeks ago. Even now good hay is very high and scarce. About one-eighth of an inch of rain fell a few days since and helps to keep things growing.

Business is lively in Santa Barbara on account of the holidays. Some building is going on all the time. Many stores and dwelling-houses are for rent. Liveller times are looked for as soon as work is commenced, building the railroad from Elwood to Santa Margarita. It takes much time and labor to raise the \$15,000 necessary to secure the right of way, but it is hoped that this amount will be made up soon.

The Occidental Mining Co. have a flow of twenty-five barrels per day at their oil well back of Carpinteria, and have had an oil tank put up on the railroad switch at Carpinteria wharf and are now laying a pipe line from the well to the tank, some four or five miles. Matters are quiet at the Summerland gas wells. The Gas Company has secured a franchise to lay gas pipes in Santa Barbara. Summerland is growing quite rapidly and is a very pretty little city. Several new business houses have been opened there recently.

Quite a strong movement is noticeable among the farming classes in the way of forming Granges and Farmers' Alliance clubs. It is to be hoped most sincerely that something may come from this movement in the way of State and National legislation.

The principal part of the bean crop remains unsold. The crop being very light, high prices were hoped for, and the beans were held with that purpose in view, but the demand did not justify, or was supplied elsewhere, leaving the farmers here in the lurch. They still hope, however, that matters may clear up before next season and all the beans he sold. The walnut crop was about all contracted early in the season and delivered as soon as gathered. Prices averaged well, ranging from eight to ten cents per pound.

In this part of the county there is not much stir in the matter of tree planting, as Lima beans pay better than fruit with the chance of having to dry the fruit in a drier, or else paying the heavy freight charges on the green fruit to Newhall, where it is dried on the ground by the heat of the sun.

L. B. CADWELL.

Carpinteria, Dec. 20, 1890.

Oregon State Horticultural Society.

Secretary E. R. Lake gives notice of the annual meeting to be held in City Council Chamber, Portland, January 13-14, 1891. During the past year this society has been entirely reorganized, and is now placed upon as good working basis as any similar organization on the coast. The membership of the society, though not as large as it ought to be in a State so favored as Oregon, horticulturally speaking, is composed of the leading orchardists and gardeners of the whole State. Every section is represented, but in many the membership is too small to truly represent the horticultural interest of those sections. At this meeting we are very desirous of seeing every phase of horticulture and every section of the State fully represented.

The S. P. R. R. and the O. P. R. R. will give the customary reduced rates. All papers presented will be open for discussion by those present.

All meetings are public, and every one interested in the upbuilding and advancement of Oregon's horticulture is most cordially invited to be present and take part in the proceedings.

THE IMPERIAL EARLY PEACH.—This is the name which W. W. Smith of Vacaville gives to a new variety which he has originated to meet the demand for a large yellow freestone ripening earlier than the Crawford's Early. Mr. Smith writes us that he is receiving many applications for buds, scions and trees, but he is not able to supply any this year, and wishes to notify RURAL readers to that effect. He is propagating the variety largely and expects to have sufficient stock next season which will enable him to sell at rates so reasonable that they can be planted by the thousand. Next summer he expects to bring the fruit prominently before the fruit-growers so that they can judge of its claims as the best early yellow peach.

THE STANFORD MUSEUM.—The contracts have just been let to Oakland parties for the construction of the Stanford University Museum at Palo Alto. The building is to be a monolithic structure, walls and floors of concrete and twisted iron, the same as used in the Academy of Sciences in San Francisco. This branch of the work alone will cost \$150,000.

Blind Requests.

Careless Subscribers.

It is surprising how thoughtless and careless some persons are in remitting money to newspapers, and in making requests in regard to changing the address of their papers. Almost every week some "blind" requests and blunders reach us, resulting from oversight and carelessness on the part of those who send them.

It is a common thing for us to receive requests like the following:

"Please change my paper to Blankville, as I have gone there to live. Yours truly, JOHN SMITH."

But as "John Smith" failed to give us his former or present address, we cannot make the change he requests without searching over thousands of names on our mail list—a work that would require a week to accomplish; and as there are many John Smiths, it would probably be unsuccessful in identifying the one sought after, even if the search were made.

Some persons request us to send their paper to such and such a place, not only without giving their present address, but even without giving their names. Of course, not knowing who the writer is, nor where he receives his paper, we cannot make the change he requests, and must wait until he writes again to complain that his former request was not attended to. But this was entirely his own fault. If he had sent in his name and former or present address, his request could and would have been promptly attended to.

Sometimes persons remit money in letters, and with similar carelessness neglect to give their address or name. In such cases we cannot enter credit for the money thus blindly sent us until we are subsequently informed from whom it came by the person who sent it and who complains that he has not received credit for his remittance. Of course, the delay in crediting the money was caused by his own carelessness.

It is the custom of printers to call all defective, disconnected, mislocated and unintelligible manuscript, or portions of it, "blind," and the term is appropriately applicable to the kind of requests sent us which we have cited above. They are "blind" requests and cannot be attended to for the reasons stated.

We hope, therefore, that all our friends will hereafter exercise a little thoughtfulness and care in this matter, and whenever they remit money to us, or desire us to change the address of their papers, we beg them always to state the postoffice, county and State to which their paper is now sent, as well as the one to which they wish it sent, together with their full name, and their requests can then be complied with. In short, we beg them to send us no more "blind" requests.

Do Poultry Select Food by Sight or Smell?

EDITORS PRESS:—At a late meeting of the Muskegon (Mich.) Horticultural Society, while the subject of poultry-raising in connection with horticultural pursuits was under discussion, the writer, for the purpose of setting the members to thinking, asked the question whether poultry selected their food by sight or by smell. This caused a deal of sight of thinking and no small amount of talking. The proponent of the question took the ground that sight alone guided not only domestic fowls, but all others in the selection of their food. The secretary of the society, Prof. Whitney, declared it was instinct and neither sight nor smell that guided them. A majority of the members inclined to the opinion that sight was the only guiding sense. Can any of the readers of the PRESS say positively whether fowls possess the sense of smell at all?

Muskegon, Mich. J. S. TIBBITS.

CREAM AS A CURE.—Very few housekeepers know the value of cream as food, and its superiority over butter or any other solid fat by permitting the gastric juice to mix with it in the most perfect manner, and in this way aiding and hastening digestion. It is most invaluable in the case of invalids, for it serves as nutriment in the most readily available form. It is also superior to butter, because it contains more volatile oils than butter made from it. Persons consumptively inclined, those with feeble digestion, aged persons, and those inclined to chilliness and cold extremities, are especially benefited by a liberal use of sweet cream. No other article of food or medicine will give such satisfactory results. It is far better than cod-liver oil, and is an antidote against consumption and a nutritious food for any one at all times. It would probably be used very freely were it not for the impression that it is an expensive luxury, and for this reason we restrict ourselves in the use of cream, and use butter, a still more expensive luxury, lavishly. The impression seems to be that the legitimate end of cream is to make butter, while, in fact, butter-making is the least useful purpose for which milk is employed.

IN MEMORY OF CAPTAIN COOLEY.—The Loyal Legion has issued a handsome memorial circular giving a life sketch of Capt. F. M. Cooley, who recently died in this city. Capt. Cooley was a brave soldier and a good citizen. He was husband of Alice Kingsbury Cooley, an esteemed correspondent of the RURAL, and well known to many of our readers who will feel deep sympathy with her in her bereavement.

AN installation for the purpose of plowing the land by electric motors has been set up in Spain on property belonging to the Marquis de la Laguna. The power of a water-wheel of some 20 horse-power will be employed, and the implement for working the land is expected to work at a distance of three miles from the generating dynamo.

Hollywood Trotting Stock.

The entire stock of the Hollywood Farm, at Floden, three miles from Vallejo, on the Napa Railroad, consisting of 60 head of standard, registered and thoroughbred stock of horses, will be sold at auction on Wednesday, 7th of January, 1891. After over 30 years of breeding, the proprietor, B. C. Holly, owing to failing health has concluded to close out at public auction, this high-class stock, representing, as it does, strains of the best blood and the most honored producing families in the United States. Mr. Holly has had a large experience and made the subject of breeding and nicking horses a study during the best years of his life. In looking over his catalogue, there can be found representatives from all the leading families, among which are some which were purchased in New York and Kentucky.

He has been very successful on the turf as a winner in trotting and running; having won the great stallion race with Woodnut in 1888. During the last four years he has expended a great deal of time and given a large amount of money in securing the most fashionable blood and the most remarkable getters that could be found. A RURAL representative made a visit to this great breeding farm one day last week, and spent three hours looking over the stock, and witnessing the performances of these royal-bred horses. A pair of yearlings, one of which was by Stamboul, were speeded around the track under a three-minute gait. After such a high standard has been attained in breeding horses as can be seen at Hollywood Farm, it is nothing less than a misfortune to the Pacific Coast to have it closed.

Any one who is interested in this high class of horses, would do well to send for a catalogue for the purpose of studying the pedigrees and performances of noted families here represented. Mr. Holly has had long prices made by breeders and speculators in horses, for several of his horses since the issue of his catalogue, but has refused to accept any, as the Hollywood trotting stock will be sold at auction as advertised in our columns.

Good News to Fruit-Growers and Farmers.

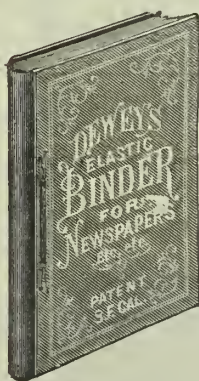
The Judson Manufacturing Company are selling Rabbit-Proof Fencing so cheap that it finds a big demand, especially their 2-ft. high rabbit-proof fence with three galvanized steel wire cables. It is so strong that hogs cannot break it, and farmers are putting barbed wires above it to any desired height and thereby have a very cheap fence that will turn anything. Their fencing is colored red by a chemical solution that preserves the pickets. See their advertisement on page 17.

NEWSPAPER AGENTS WANTED.

Extra inducements will be offered for a few active canvassers who will give their whole attention (for a while at least) to soliciting subscriptions and advertisements for this journal and other first-class popular newspapers. Apply soon, or address this office, giving address, age, experience and reference. Special inducements to old agents.

DEWEY & CO., Publishers,  
No. 220 Market St., S. F.

To Subscribers and Readers.



A HANDY PAPER BINDER.—A. T. Dewey's patent elastic binder, for periodicals, music and other printed sheets, is the handiest, and very cheapest of all economical and practical file binders. Newspapers are quickly placed in it (as received) and held neatly, as in a cloth-bound book. It is durable, and so simple a child can use it. Price (size of this paper, Harper's Weekly, and Scientific American), 75 cents; postage 10 cents. Postpaid to purchasers of this paper, 50 cents. For sale at this office. Send for illustrated circular. Agents wanted.

Land to Rent.

A Splendid Opportunity

To rent on exceedingly favorable terms, either for cash or a reasonable portion of the production, 164 acres of well-tilled land, a very comfortable house, with abundant shade trees, and splendid well of excellent healthy artesian water flows through the garden and dooryard. Water sufficient to irrigate 100 acres or more. Much of the land leveled, checked and ditched. Large barn and convenient outhouses. About 25 acres of alfalfa, and seven of orchard. The land is conveniently fenced into subdivisions, including a good pasture, large reservoir, etc. This place is one of the pleasant, healthfully located places in the Tulare valley, seven miles S. W. of Tulare city. Possession given immediately. Also, 156 acres adjoining on the east side and 180 acres on the west side of the above tract, making FOUR HUNDRED AND EIGHTY ACRES all well-tilled, productive land for all kinds of grain-growing, etc. Also 640 acres three miles from Pixley, and 160 acres within one mile of Tulare city, also on very favorable terms.

Apply soon to Capt. Thos. H. Thompson, Tulare; E. M. Dewey, Porterville; or A. T. Dewey, 220 Market Street, San Francisco.

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25	26	27	28	29	30	31	32

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SMALL TRACTS OF LAND FOR HOMES

In 5, 10, 20 or 40 acre tracts, one-half mile from city limits of Tulare, one of the most prominent-growing towns in the State, at prices ranging from \$40 to \$80 per acre.

The land lies in the northerly limit of the Artesian Belt, and is also easily supplied with ditch water. Soil, sandy loam. Good surface water at 10 to 12 feet.

Liberal terms of payment to those who build or plant at once.

Apply to E. M. DEWEY, Porterville, Tulare Co., or A. T. DEWEY, 220 Market St., S. F.

CALIFORNIA FRUITS

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HOW TO GROW THEM.

A MANUAL OF METHODS WHICH HAVE YIELDED

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DISTRICTS OF THE STATE.

BY EDWARD J. WICKSON, A. M.

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PART III: ORCHARD FRUITS.—The Apple; The Apricot; The Cherry; The Peach; The Nectarine; The Pear; Plums and Prunes; The Quince.

PART IV: THE GRAPE.—Rise and Progress of the Grape Interest; Propagating and Planting Vines; Pruning and Care of the Vine; Grape Varieties in California.

PART V: SEMI-TROPICAL FRUITS.—The Date; The Fig; The Olive; The Orange; The Lemon, Lime, etc.; Minor Semi-Tropical Fruits.

PART VI: SMALL FRUITS.—Berries and Currants.

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PACIFIC RURAL 1891. C HANDY  
PRESS. CALENDAR.

1891	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	1891	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
Jan.	1	2	3	4	5	6	7	July	1	2	3	4	5	6	7
8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
24	25	26	27	28	29	30	31	Aug.	1	2	3	4	5	6	7
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24	25	26	27	28	29	30	31	Sept.	1	2	3	4	5	6	7
8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
24	25	26	27	28	29	30	31	Oct.	1	2	3	4	5	6	7
8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
24	25	26	27	28	29	30	31	Nov.	1	2	3	4	5	6	7
8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
24	25	26	27	28	29	30	31	Dec.	1	2	3	4	5	6	7
8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
24	25	26	27	28	29	30	31								



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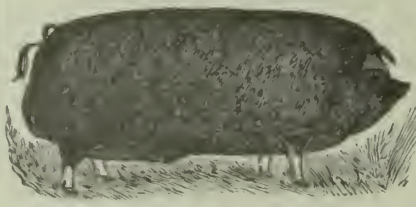
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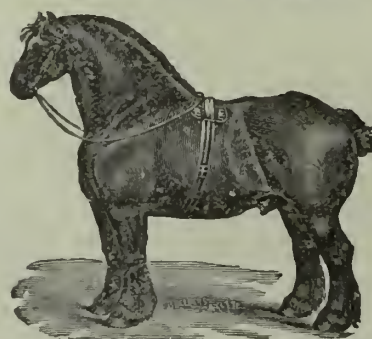
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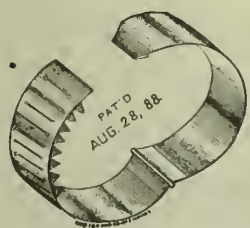
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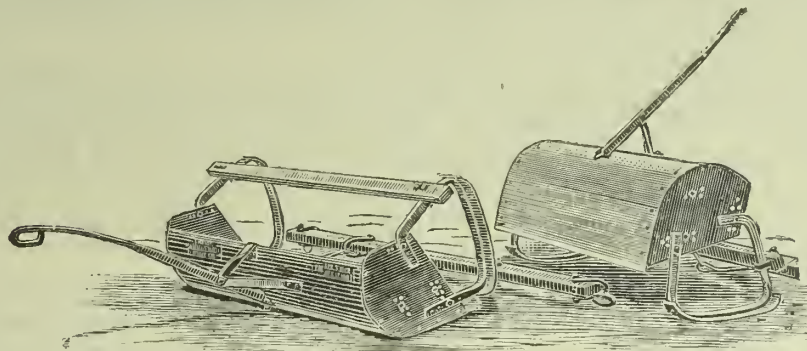
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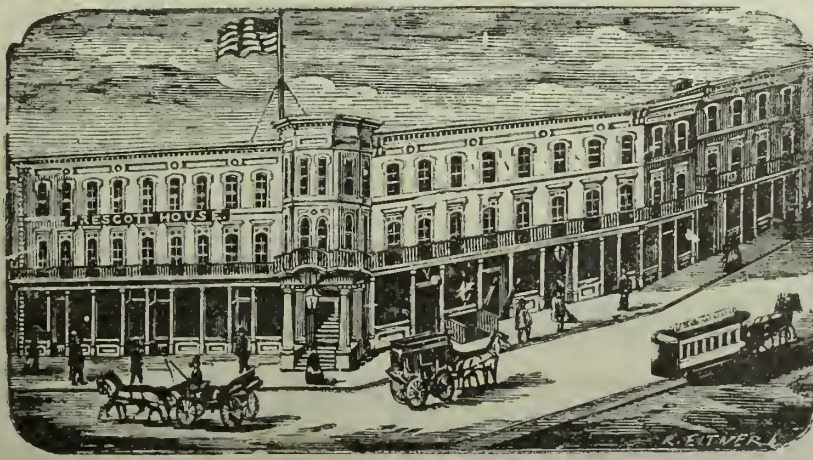
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## S. F. MARKET REPORT

## Market Review.

## DOMESTIC PRODUCE, ETC.

SAN FRANCISCO, Dec. 30, 1890.

Trade in general produce has hung, but not more so than usually obtains at this season of the year. The money market has probably seen its worst, and from now on a steady improvement should set in. The large sums of money tied up will begin to be disbursed with the beginning of next month. The aggregate will be largely in excess of former annual disbursements, which will tend no little in easing the money market. This ease would be more pronounced if Congress would stop partisan legislation and pass a free-coinage bill, besides other legislation calculated to restore confidence. The English wheat market has held strong throughout the week. The following is to-day's cablegram:

LIVERPOOL, Dec. 30.—Wheat—Strong. California spot lots, 7s 4½d to 7s 7½d; cargoes off coast, 38s 3d to 38s 6d; just shipped, 38s; nearly due, 38s 3d; cargoes off coast and on passage, firm and held higher; wheat on passage to Continent, 74s, 000 qrs; wheat and flour on passage to Cork, U. K., 2,011, 000 qrs; French country markets, stiff; wheat and flour in Paris firm.

## Foreign Grain Review.

LONDON, Dec. 29.—The *Mark Lane Express* in its review of the British grain trade during the week past, says: English wheats are firm for good sorts at an average advance of 6d. Foreign wheats are steady. Oats and corn are slow. At to-day's market English wheats were well sustained. Foreign was firm for white sorts. Flour was in good request. Round corn was 3d higher. Oats were 3d lower.

## Liverpool Wheat Market.

The following are the closing prices paid for wheat options per cwt. for the past week:

Day	Dec.	Jan.	Feb.	Mar.	April.	May.
Thursday	104½	103½	103½	103½	103½	103½
Friday	104½	103½	103½	103½	103½	103½
Saturday	104½	103½	103½	103½	103½	103½
Monday	104½	103½	103½	103½	103½	103½
Tuesday	104½	103½	103½	103½	103½	103½

The following are the prices for California cargoes for off coast, nearly due and prompt shipments for the past week:

Day	O. C.	P. S.	N. D.	Market.
Thursday	104½	103½	103½	103½
Friday	104½	103½	103½	103½
Saturday	104½	103½	103½	103½
Monday	104½	103½	103½	103½
Tuesday	104½	103½	103½	103½

## Eastern Grain Markets.

The following shows the closing prices of wheat at New York for the past week, per bushel:

Day	Dec.	Jan.	Feb.	Mar.	May.	July.
Thursday	104½	103½	103½	103½	103½	103½
Friday	104½	103½	103½	103½	103½	103½
Saturday	104½	103½	103½	103½	103½	103½
Monday	104½	103½	103½	103½	103½	103½
Tuesday	104½	103½	103½	103½	103½	103½

The closing prices for wheat have been as follows at Chicago for the past week, per bushel:

Day	Dec.	Jan.	Feb.	May.	July.
Thursday	104½	103½	103½	103½	103½
Friday	104½	103½	103½	103½	103½
Saturday	104½	103½	103½	103½	103½
Monday	104½	103½	103½	103½	103½
Tuesday	104½	103½	103½	103½	103½

NEW YORK, Dec. 30.—Wheat—\$1.06½ for cash, \$1.04½ for December, \$1.04½ for January, \$1.05½ for March; \$1.05½ for May, and \$1.00½ for July.

CHICAGO, Dec. 30.—Wheat—89½c for January and 97½c for May.

## Hops.

NEW YORK, Dec. 28.—Hops are in a tame condition for local or export use. The prices, however, have not shrunk, which is a favorable feature of the dull market at the close of the year. Light orders from brewers directed to good olds and under grade. The New York crop of 1890: Choice, 38@40c; good to prime, 35@37c; common to fair, 32@34c; crop of 1889, 20@25c; crop of 1888, 12@18c; do, old olds, 7@10c. Pacific crop, 1890: Prime to choice, 36@38c; good, 33@35c; common, 30@32c; crop of 1888, 12@18c; Eastern and California old olds, 7@10c; Bavarian, 60@62c; Bohemian, 62@65c; Altmarc, 52@55c. Exports for the week, 359 bales.

## Eastern Wool Markets.

NEW YORK, Dec. 26.—Bradstreet's will say: The wool sales for the week show a strong active movement in both Texas and Territory supplies. Some large lots of Texas wools were disposed of at full values, showing that confidence in high prices has not weakened. Fleece wools are in strong demand. Australian wools are moving better, while pulled wools are very firm. Prices have not been changed on any grade. It is said 300,000 bales have been shipped from Melbourne for the next London sales. A recent decision of the Treasury Department to assess a duty of 12¢ lb. on common goat hair has stirred up considerable discussion among carpet dealers and carpet manufacturers.

NEW YORK, Dec. 28.—New York makes a light showing in wool business, the weather and holidays restricting the evident disposition to trade. All seaboard points have a hopeful outlook for prices. The early new year is expected to bring a line of manufacturers needing selections of the remaining light supply, especially for bosierly worsted.

Boston retains an active tone. Sales—2,393,000 lbs. domestic and 103,000 lbs. of foreign. The bulk of Texas was closed out at 18@23c; 140,000 lbs. of California went at 17@23c. The Philadelphia market is in good shape for the new year, and buyers are unable to shake the holders' views.

## Dried Fruits.

NEW YORK, Dec. 28.—Raisins continue to be offered at low prices, and unless some unforeseen demand springs up the holders are fearful that the season will wind up with many invoices in storage. Retailers are not heavily stocked, which is encouraging for really useful loose or clusters at current quotations. Prime parcels in bags, 7@7½c; good style layers offered, 2¢; choice and best Three Crowns as before.

Prunes, apricots and peaches almost nominal,

NEW YORK, Dec. 29.—The *Commercial Bulletin*, discussing the dried fruit situation, says: It would be difficult to picture a more stupid condition of affairs than that observed at present. There is absolutely no demand for goods from interior points, and among the local large dealers there is a complete absence of speculative interest, the low prices current for most lines attracting not the slightest attention.

The foreign markets reflect generally a firm tone, though naturally at this time the cable offerings of stock are not frequent. The crop of prunes in France the past season was in fair quantity and of an unusually good quality. The market in Bordeaux appears well sustained, with no disposition to urge supplies, the belief being entertained that there is on hand the entire available quantity required during the coming season.

The Turkish prune crop was a comparative failure this year. The stock of Valencia raisins is exceedingly small and consists chiefly of better class fruit. The crop of Malaga raisins this season was small, but as this country has become almost wholly dependent on California for a similar class of fruit, the scarcity has been without influence on this side of the water. For grades of imported fruit there is yet a moderate call. Good fruit has been in fair demand all along. For such, full prices have been and are exacted.

## Miscellaneous.

NEW YORK, Dec. 28.—The long pause in trade in mustard seed makes some room for parcels on the way from the Coast; 3½c is quoted for yellow brown. Pacific Coast of irregular quality does not compare well with the foreign.

Honey strong; sales, 6½@7½c for amber shades. Lima beans slow with easy prices. Nothing above last price. Quality unsatisfactory.

## Local Markets.

Day	Buyer Season.		Seller 1891.		Buyer 1890.	
	H.	L.	H.	L.	H.	L.
Thursday	149½	149	106½	106½		
Friday						
Saturday						
Monday						
Tuesday						

## WHEAT.

Day	Buyer Season.		Seller 1891.		Buyer 1890.	
	H.	L.	H.	L.	H.	L.
Thursday	149½	149	106½	106½		
Friday						
Saturday						
Monday						
Tuesday						

BAGS—The market is essentially unchanged at 6½@6¾c for May-June delivery.

BARLEY—The sample market has held firm under moderate receipts and a fair call. The Call Board adjourning for three days interrupted trading in futures, but with business resumed on yesterday more activity is noted. The following are to-day's Call Board sales:

Morning Session: Buyer season—100 tons, \$1.49½; 300, \$1.49½; 700, \$1.49½; 1,000, \$1.49½; 2,000, \$1.49½; 3,000, \$1.49½; 4,000, \$1.49½; 5,000, \$1.49½; 6,000, \$1.49½; 7,000, \$1.49½; 8,000, \$1.49½; 9,000, \$1.49½; 10,000, \$1.49½.

BUTTER—The market is firm but no higher. There is very little if any choice pickled. The Eastern creameries are sending liberal supplies to this coast, which interferes with the California product. It is generally claimed that with milder weather on this coast, the output of butter will increase.

CHEESE—The supply is light, the demand good and the market strong.

EGGS—The market is shading off under increasing supplies and buyers haggling for still lower figures.

FLOUR—The market is steady. The demand is fair.

WHEAT—For the first three days of the week under review, trading in sample parcels was quiet owing to the adjournment of the Produce Exchange. On yesterday fair business was done. Holders appear very firm, only letting go when compelled to do so. In futures, trading yesterday and to-day was fair. The following are to-day's Call Board sales:

Morning Session: Buyer 1890—200 tons, \$1.31½; 100, \$1.31. Buyer season—200 tons, \$1.42½; 100, \$1.42. Buyer 1891—300 tons, \$1.48½; 700, \$1.49; 1,000, \$1.49. Buyer 1890—200 tons, \$1.31. Buyer season—400 tons, \$1.43; 200, \$1.43½; 1,000, \$1.43½; 200, \$1.43½. Buyer 1891—200 tons, \$1.49½; 100, \$1.49½; 100, \$1.49½; 100, \$1.49½.

## Market Information.

## Produce Receipts.

Receipts of produce at this port for the week ending Dec. 29th, were as follows:

Flour, qr. sks.	100,619	Middlings, sks.	2,526
Wheat, cts.	293,923	Alfalfa, "	543
Barley, "	17,177	Chicory, bbls.	200
Rye, "	216	Broomcorn hds.	865
Oats, "	5,437	Hops, bbls.	100
Corn, "	11,160	Wool, "	5
*Butter, "	407	Hay, tons.	1,150
do bxs	314	Straw, "	44
do bbls	133,700	Wine, gals.	133,700
do kegs	19,820	Brandy, "	19,820
do tubs	4,578	Raisins, bxs.	4,578
do bxs	51	Honey, cts.	320
†Cheese, cts.	281	Walnuts, sks.	31
do bxs	3	Flaxseed, "	1,523
Eggs, doz	35,360	Mustard, "	22
do " Eastern	44,750	Almonds, "	22
Beans, cts	343	Peanuts, "	370
Potatoes, sks	34,072	Popcorn, "	431
Onions, "	1,716	Beet sugar, bbls.	30
Bran, "	14,863	do do sks.	300
Buckwheat, "	10		
*Overland 654 cts.		†Overland 845 cts.	

## Cereals.

Owing to adjournment of the Produce Exchange, the local wheat market has been very dull, barely enough doing to afford quotations. Home receipts continue quite light, but receipts from up north were free. In this State there is no decided disposition to meet buyers' views, although the latter claim that with a light supply of tonnage the offerings are ample. But there is no doubt they would not be

were Oregon and Washington to hold back supplies. It looks as if the majority of farmers in Western Washington and Western Oregon are forced to sell, having placed themselves in the power of moneyed sbylocks. The elevator system up north gives to unscrupulous persons the reins to drive any kind of bargain desired by a grain ring. All ring records are such as to warrant the assertion that the bargain was against wheat growers.

Silver has fallen in London, and in sympathy, wheat has declined; and still speculators and Shylocks say that the free coinage of silver with its attending higher price would benefit only mine-owners.

There are several disengaged vessels in port, against none two weeks ago.

The weather has been of the best for outdoor work. Owing to heavy rains last winter, the ground was soaked down to a greater depth than for several years, and consequently it is affirmed that good crops can be grown next year with light but seasonable rains.

Barley has ruled fairly firm under moderate receipts and a fair demand. Oregon and Washington sent us more than in the preceding week. The supply in California is light, barely enough to meet home requirements, consequently receipts from up north are welcomed by buyers. The Hawaiian Islands continue to draw freely, with rolled barley making nearly as large a showing in the shipments as does whole grain. There will be a large acreage seeded this season to barley, consequently seed barley will be required in localities where the crop was light.

Oats show continued strength under light receipts and small supplies to draw from. The demand is fair, notwithstanding high prices restrict some feeders.

Corn is still coming in freely, causing a shaving off in prices. The demand is of an offish character. Rye and buckwheat are unchanged.

## Feedstuff.

The demand for ground feed has held steady—about equal to the receipts. If the rains yesterday and last night are followed by milder weather, natural feed, in a short time, will be so abundant as to considerably curtail the feeding of ground feed.

The receipts of hay are still light, causing a steady market to obtain. The supply in the country is light, but the fear that mild weather may set in at any time causes feeders and dealers not to anticipate their wants. With mild weather, grass will make a good start and excellent pasturage would soon follow. If the present rains are succeeded by severe cold weather there will be an increased call for hay and all kinds of feedstuff.

## Fruits.

The receipts of oranges are increasing, causing a slight advance in prices. Choice ripe thin-skinned are given preference by buyers. Rough thick-skinned will be again discriminated against. Consumers have not taken hold freely; this no doubt is due to apples being in liberal stock and given preference by consumers. Limes and lemons are in light stock, but the demand is slow.

Apples continue to come in freely, yet the market holds up well. Taking receipts as a whole, they average in quality better than for years past. This speaks well for orchardists. With more attention given to pruning, cultivation and keeping trees free from pests, the fruit will continue to improve, which will make poor stock still more unsalable.

Oregon is sending us larger quantities of apples than it did last season.

Winter Nels pears are not worth quoting.

In dried fruits there is absolutely nothing new to report, and probably will not be until well into February.

Raisins are slow of sale. Quotations are more or less nominal.

## Vegetables.

Garden truck is in light supply. The southern part of the State still supplies this market with early spring vegetables, for which quotations are more or less nominally high, changing according to the demand and supply.

Onions are in better supply, but the market holds steady. Choice good keepers are wanted. The crop the next season, it is said, will be large.

Potatoes are barely steady under free receipts and liberal supplies to draw from. Large speculators in this city are working off their holdings. New potatoes are making a better showing, but, as yet, receipts do not justify quoting sales. Sweet potatoes are generally in poor condition. Choice good keepers fetch top prices.

## Live-stock.

Attention is still paid to holiday stock. The display of meats this year was never equaled in this city. Bullocks, hogs and mutton sheep corn-fatted to perfection. At Sampson's market in Oakland, two hogs were killed—one weighed over 1100 lbs. and the other over 900 lbs. He bought the hogs from a Contra Costa farmer and fattened them himself. These were the largest the writer saw the past Christmas. The offerings of bullocks are still free. Mutton sheep are firm, as are hogs. More of the latter are being put into packed than for years past. Horses and milch cows are unchanged.

The market for dressed cattle is quoted as follows [to obtain the price on foot, take off from the price for stall-fed one-third to one-half, according to the nature of the feed and time fed; and for grass-fed take off the price from 40 to 60 per cent]:

HOGS—On foot, light grain fed, 4½@4¾c lb.; dressed, 7@8c lb.; heavy, 4@4¾c lb.; dressed, 6½@7¾c lb. Stock hogs, 3@3¾c lb. BEEF—Stall fed, 7@—c lb.; grass fed, extra, 6½@—c lb.; first quality, 5½@6c lb.; second quality 4½@5c lb.; third quality, 3½@4½c lb.; bulls and thin cows, 2@3c lb. VEAL—Small, 8@9c lb.; large, 6@7¾c. MUTTON—Wethers, 7c lb.; ewes, 6½c lb.; lamb, spring, 8@9c.

## Miscellaneous.

Exports by sea the past week aggregate as follows: Flour, bbls, Central America, 6065; Panama, 378; Hilo, 300; Kahului, 400. Wheat, cts, Hull, 56,914; Dunkirk, 61,500; Antwerp, 127,790; Cork, 33,171. Barley, rolled, lbs, Hilo, 97,735. Beans, lbs, Victoria, 3200; Mexico, 6121; Central America, 21,554; Hilo, 1980; Honolulu, 1536. Apples, bxs, Mexico, 872. Corn, cts, Central America, 1019. Dried fruits, lbs, Mexico, 2115; Central America, 1317; Honolulu, 2400. Wine, gals, Mexico, 1867; New York, 52,248; Washington, 1010; Central America, 600. Raisins, bxs, Mexico, 205; Central

America 417. Potatoes, sks, Mexico, 541; Central America, 335. Brandy, gals, New York, 145; Providence, R. I., 150.

Poultry has held up well, considering the heavy receipts. More fowls were bought this Christmas than ever before, which speaks well for the condition of all classes. Last winter the city was full of idle workmen; this winter there are very few here.

Game is in light supply, but the rains may bring in more on the various hunting grounds which will cause hunters to send more into market.

Beans are barely steady. There appear to be strong buyers for large desirable parcels.

In hops there is nothing doing.

Wool is dull, with no important change, if any, expected until after the turn of the year.

Nu s are easier under a slower demand.

Honey is very firm at full prices.

From the *Commercial News* of Dec. 30th the following summary of tonnage movement is compiled:

On the way to	1890.	1889.
San Francisco	273,433	199,664
San Diego	12,676	11,368
San Pedro	7,478	2,735
Oregon	32,341	25,950
Puget Sound	38,526	15,255

Totals.....364,454 254,979

In port at

San Francisco, disengaged	1890.	1889.
" engaged for wheat	10,734	7,864
San Diego	47,941	83,739
San Pedro	4,250	
Columbia River	2,009	1,476
Puget Sound	12,948	

Totals.....77,882 93,079

To get the carrying capacity, add 65 per cent to the registered tons as given above.

From July 1, 1890, to Dec. 24, 1890, the following are the exports from this port:

	1890.	1889.
Wheat, ctls.....	5,859,269	6,233,523
Flour, bbls .....	567,116	546,302
Barley.....	176,369	815,865

## Domestic Produce.

Extra choice in good packages fetch an advance on top quotations, while very poor grades sell less than the lower quotations. TUESDAY, Dec. 30, 1890.

BEANS AND PEAS. do paper shell 11 @ 12½  
Bayo, cts. 3 50 @ 4 00 Almonds, hd sh. 6 @ 7  
Butter, 2 75 @ 3 00 Soft-shell, 15 @ 16  
Pos., 2 50 @ 3 00 Paper shell, 15 @ 16  
Red, 2 50 @ 2 90 Brazil, 19 @ 20  
Pink, 2 00 @ 2 40 Pecans mail, 11 @ 14  
Small White, 2 50 @ 2 80 do large, 17 @ 18  
Lima, 3 40 @ 3 70 Peanuts, 5 @ 6  
Wild Peas, bkys, 1 65 @ 1 90 Filberts, 11 @ 13  
do green, 2 50 @ 2 90 Hickory, 12 @ 15  
do Niles, 1 60 @ 1 80 Chestnuts, 12 @ 15  
Split, 4½ @ 4¾ Pine nuts, 7 @ 8

BROOM CORN. Silver Skin 2 50 @ 3 25  
Onions, 2 50 @ 3 25

CHOCOLATE. Fair to Good, 45 @ 50 00  
Poor, 40 @ 45 00

CHICORY. California, 5½ @ 6 00  
German, 6 @ 6½

DAIRY PRODUCE, ETC. Jersey Blues, 1 30 @ 1 50  
Sweet ahs., 1 50 @ 1 75  
do good to choice, 3½ @ 3 75

do Glitged, 39 @ 40 Hens, doz., 5 00 @ 6 50  
do picked, 27½ @ 32½ Roosters, old, 4 50 @ 5 50  
do in kegs, 22½ @ 28 do young, 4 50 @ 6 50  
do Creamery rolls, 40 @ 41 Broilers, small, 3 00 @ 4 00  
do Eastern tubs, 30 @ 32 do large, 4 50 @ 6 50  
do dairy, 20 @ 22 Fryers, 4 50 @ 5 50  
Ducks, tame, 4 00 @ 5 50

Cal. choice mild 12 @ 13 do large, 6 00 @ 7 50  
do fair to good 10 @ 11 Geese, pair, 1 50 @ 2 00  
do gilt edged, 13 @ 14 Turkeys, Goblr., 15 @ 16½  
Young America, 13 @ 15 Turkeys, Hens, 15 @ 16½  
N. York Cream, 13 @ 15 do dressed, 18 @ 20  
Western, 11 @ 13 Pigeons, 1 10 @ 2 50



Dried Fruits, Etc.

The quotations given below are for average prices paid. Something very fancy fetch an advance on the highest quotations while poor sells slightly below the lowest quotations. Prices named, unless otherwise specified, are for fruit in sacks. Add for 50-lb. boxes 1c per lb., and for 25-lb. boxes 1c to 1c per lb.

Apples, sun-dried, quarters, common.	64@	—
" " " prime.	7@	—
" " " choice.	8@	—
" " " sliced, common.	74@	—
" " " prime.	8@	—
" " " choice.	84@	—
" Evap. bleached, ring 50-lb. boxes.	104@	11
Apricots, sun-dried, unbleached, common.	8@	—
" " " prime.	10@	—
" " " choice.	12@	—
" " " bleached, prime.	16@	—
" " " choice.	17@	—
" " " fancy.	18@	—
" Evap. choice, in boxes.	19@	—
" " " fancy.	19@	—
Figs, sun-dried, black.	3@	4
" " " white.	3@	—
" " " fancy.	8@	10
" " " pressed.	9@	13
" Smyrna boxes.	12@	14
" do do.	10@	12
Grapes, sun-dried, stemless.	3@	3
" " " unstemmed.	4@	2
Nectarines, Red, sun-dried.	13@	14
" " " evaporated, in boxes.	12@	15
" " " white, sun-dried.	12@	16
" " " evaporated.	17@	19
Peaches, sun-dried, unpeeled, common, bleached.	8@	—
" " " prime.	10@	—
" " " choice.	13@	—
" " " fancy.	14@	—
" " " evaporated.	15@	—
" " " choice.	16@	—
" " " fancy.	19@	—
" " " sun-dried, peeled, prime, bleached.	22@	—
" " " choice.	24@	—
" " " fancy.	25@	—
" " " evaporated, in boxes, choice.	27@	—
" " " fancy.	27@	—
Pears, sun-dried, quarters.	7@	9
" " " sliced.	9@	10
" " " evaporated, in boxes.	10@	11
" " " ring.	12@	13
Plums, pitted, sun-dried.	94@	11
" " " evap. in boxes, choice.	11@	12
" " " fancy.	13@	14
" " " unpitted.	37@	5
Prunes, Cal. French, ungraded sizes.	9@	11
" " " grad.	90 to 100	8@
" " " " 80 to 90.	9@	—
" " " " 70 to 80.	9@	—
" " " " 60 to 70.	10@	—
" " " " 50 to 60.	11@	—
" " " " 40 to 50.	12@	—
Fancy sell for more money.		

RAISINS.		
Halves, quarters and eighths, 25, 50 and 75 cents higher respectively than whole box prices.		
London Layers, choice 1/2 lb. boxes.	\$1 75	@ 2 00
" " " fancy.	2 10	@ 2 25
Layers, 1/2 lb. boxes.	1 25	@ 1 35
Loose Muscates, common, 1/2 lb. boxes.	1 15	@ 1 35
" " " choice.	1 50	@ 1 75
" " " fancy.	1 80	@ 1 90
Unstemmed " in sacks, 1/2 lb. boxes.	4@	6
Stemmed " " " "	4@	7
Seedless " " " "	6@	7
" 20-lb. boxes.	1 15	@ 1 25
" Sultanias, unbleached, in boxes.	1 15	@ 1 25
" " " bleached.	1 25	@ 1 30
CALIFORNIA HONEY.		
Comb, dark, 2-lb. frames, 60-lb. cases, 1/2 lb. boxes.	5@	6
" " " amber.	7@	8
" " " white.	11@	13
" " " 1 lb.	134@	15
Extracted, dark, 5-gal. cans, 2 cans to case, 1/2 lb. boxes.	44@	5
" " " amber.	51@	5 1/2
" " " white.	61@	7
Comb, 2-tins, 2 doz. to case, 1/2 doz.	—	—
Extracted, 4-lb. tins, 1 doz.	—	—
Beeswax, per pound.	22 1/2	@ 25

Fruits and Vegetables.

Choice selected, in good packages, fetch an advance on top quotations, while very poor grades sell less than the lower quotations.		
TUESDAY, Dec. 30, 1890.		
Bananas, bunch 1 50 @ 2 75	Apples, com box	40 @ 50
Cranberries 10 50 @ 14 00	do good	60 @ 80
Limes, Mex 4 50 @ 5 50	do choice	1 00 @ 1 50
do California 50 @ 1 75	do Red box	1 50 @ 2 25
do do 50 @ 75	Grapes, box	60 @ 1 00
Lemons, Cal. box 1 00 @ 3 00	Lady apples, box 1 00	@ 1 25
do Sicily, box 6 00 @ 6 50	VEGETABLES.	
do Malaga 7 00 @ 8 50	Okra, dry, lb.	10 @ 17 1/2
Oranges.	Parsnips, ctn.	1 25 @ 20
do "Winters" 1 25 @ —	Peppers, dry, lb	12 @ 20
do "Vaccaville" 1 00 @ 1 25	Turnips, ctn.	75 @ —
do "Riverside" 2 00 @ 2 50	Beets, ctn.	— @ 1 00
Seedling Oranges.	Cabbage, 100 lbs	50 @ 61
do "Riverside" 2 50 @ 3 25	Carrots, sk.	30 @ 45
do "Los Angeles" 2 00 @ 2 75	Marrowfat, ton 12 00	@ 15 00
Navel Oranges.	Hubbard.	15 00 @ 20 00
do "Riverside" 3 50 @ 4 50	Garlic, lb.	8 @ 10
do "Los Angeles" 2 50 @ 3 50	Asparagus, lb.	20 @ 25
Pineapples, doz. 4 00 @ 5 00		
Pears, box 50 @ 1 00	* Small box, † Large box.	

Importation of Horses to Los Angeles.

The arrival at Los Angeles during Christmas week of two cars of imported stallions by Holbert & Conger, importers and dealers, adds another lot of grand sires for the use of California breeders. There was one car of English Shire draft horses and one car of Cleveland Bay and German coach horses.

Among the number they have a German coach horse, which is perhaps the only one on this coast. He was bought from the Government stud in Germany and is claimed to have no equal as a coach horse in America to-day.

The German coach horse received marked attention at the American Horse Show in Chicago last fall, and was pronounced the coming great coach horse for America. This firm invites the attention of first-class breeders. A very interesting article on the German coach horse by A. B. Holbert was published in the RURAL of July 12, 1890, and it is an acquisition to have such an excellent breed introduced into the State.

Always Take a Receipt.

Subscribers to this paper are earnestly requested to take a receipt for every payment made on subscription, no matter how small the amount or to whom paid. We use printed receipts, with stubs attached, to prevent mistakes, through carelessness (or other reason), by agents or others. For our mutual interests take a receipt, whether you preserve it or not.

T. D. MORRIS, Agua Caliente, Cal. Fine Poultry, Bronze Turkeys, Toulouse and Embden Geese, etc.

PACIFIC COAST WEATHER FOR THE WEEK.

[Furnished for publication in this paper by officer in charge of branch Signal office, Division of the Pacific.]

DATE.	Olympia.				Portland.				Eureka.				Red Bluff.				Sacramento.				S. Francisco.				Fresno.				Keeler.				Los Angeles.				San Diego.						
	Rain.	Temp.	Wind.	Weather.	Rain.	Temp.	Wind.	Weather.	Rain.	Temp.	Wind.	Weather.	Rain.	Temp.	Wind.	Weather.	Rain.	Temp.	Wind.	Weather.	Rain.	Temp.	Wind.	Weather.	Rain.	Temp.	Wind.	Weather.	Rain.	Temp.	Wind.	Weather.	Rain.	Temp.	Wind.	Weather.							
Dec. 23-24.	W.	.01	44	S	Rn.	.00	36	Nw	Cl.	....	....	....	.00	42	N	Fy.	.00	42	S	E	Cy.	.00	46	Nw	P	C	.00	42	S	Cl.	.00	46	0	Cl.	.00	64	W	Cl.	.00	66	W	Cl.	
T.	....	....	....	....	.00	52	SW	Cy.	.02	52	N	Cy.	.00	48	SW	Cl.	.00	40	N	Cy.	.00	48	N	Cy.	.00	42	W	Cy.	.00	46	0	Cl.	.00	66	Nw	Cl.	.00	68	Nw	Cl.			
F.	.00	42	N	Cl.	.00	46	Nw	Cl.	....	....	....	....	.00	50	0	P	C	.00	40	N	Cy.	.00	40	N	Cy.	.00	40	S	Fy.	.00	46	SW	Cy.	.00	68	Nw	Cl.	.00	68	Nw	Cl.		
S.	.00	48	SW	Cy.	.00	48	N	Cy.	....	....	....	....	.00	50	S	E	P	C	.00	40	S	Cy.	.00	50	N	Cy.	.00	40	N	Fy.	.00	42	SW	Cy.	.00	66	SW	Cy.	.00	68	0	Cy.	
S.	.T	44	S	Rn.	.00	38	SW	Fy.	.00	50	N	Cl.	.00	48	S	E	Cl.	.00	44	N	Cl.	.00	52	Nw	Cl.	.00	48	W	P	C	.00	46	S	Cy.	.01	62	Nw	P	C	.00	66	SW	Cl.
M.	.04	4	S	Cy.	.48	46	S	Rn.	.02	54	S	Cy.	.00	46	S	E	Cy.	.00	46	S	E	Cy.	.00	52	S	E	Cy.	.00	54	S	Cy.	.00	46	N	Cy.	.00	64	Nw	Cy.	.00	66	Nw	Cy.
T.	.05	....	....	....	.48	....	....	....	.04	....	....	....	.00	....	....	....	....	.00	....	....	....	.00	....	....	....	.00	....	....	....	....	.00	....	....	....	.01	....	....	....	.00	....	....	....	

EXPLANATION. Cl. for clear; Cy., cloudy; Fr., fair; Cm., calm; — indicates too small to measure. Temperature wind and weather at 5 P. M. (Pacific Standard time) with amount of rainfall in the preceding 24 hours. T indicates trace of rainfall. P C, partly cloudy. Rn., rain.

List of U. S. Patents for Pacific Coast Inventors.

Reported by Dewey & Co., Pioneer Patent Solicitors for Pacific Coast.

FOR THE WEEK ENDING DEC. 23, 1890.

- 443,172.—BALING PRESS—Geo. B. Allen, San Leandro, Cal.
  - 443,130.—BILL FILE—Fay Buller, Oakland, Cal.
  - 443,315.—WINDOW SHADE AND SCREEN FIXTURE—Thomas Choze, S. F.
  - 443,204.—DEVICE FOR INDUCING FULL RESPIRATION—C. C. Davis, Los Angeles, Cal.
  - 443,394.—LAWN-SPRINKLER—R. Franken, Pomona, Cal.
  - 443,445.—SEAMING MACHINE.—M. Jensen, Astoria, Or.
  - 443,178.—FRUIT-PICKER'S KNIFE—T. B. Jordan, Los Angeles, Cal.
  - 443,367.—WAVE MOTOR — L. M. Lloyd, San Buenaventura, Cal.
  - 443,397.—HAT-BOX—A. C. Mack, Portland, Or.
  - 443,458.—CANAL-DIGGING MACHINE — McMullen, Wood & Krusi, S. F.
  - 443,168.—PROPULSION OF VESSELS — John Schroeder, S. F.
  - 443,151.—WATER-WHEEL — L. M. Sharps, Lake View, Or.
  - 443,171.—CONCENTRATOR—James Tulloch, Angels Camp, Cal.
- NOTE.—Copies of U. S. and Foreign patents furnished by Dewey & Co. in the shortest time possible (by mail or telegraphic order). American and Foreign patents obtained, and general patent business for Pacific Coast inventors transacted with perfect security, at reasonable rates, and in the shortest possible time.

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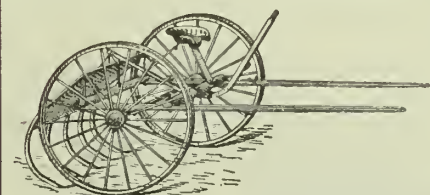
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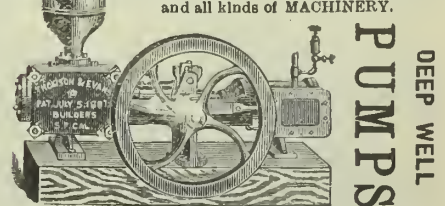
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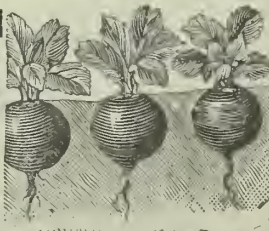
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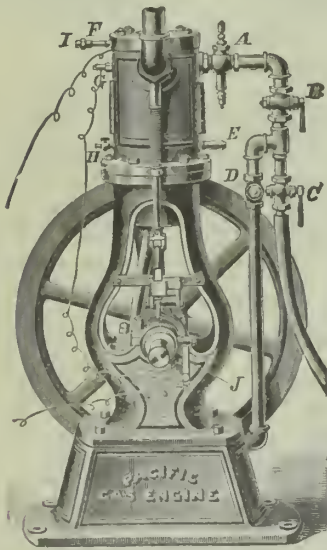
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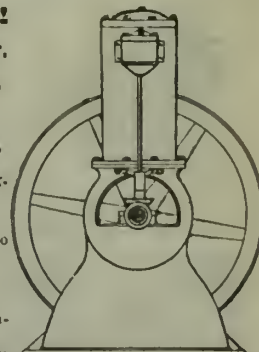


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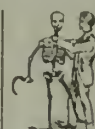
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Vol. XLI.—No. 2.

SAN FRANCISCO, SATURDAY, JANUARY 10, 1891.

{ DEWEY & CO., Publishers,  
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#### Oranges and Lemons.

As pertinent to the holding of the Citrus Fair at Marysville, under the auspices of the State Board of Agriculture, we give upon this page photo-engravings showing the two leading fruits of the citrus family. Common printing ink can but remotely represent these masterpieces of vegetable growth, and still such pictures are suggestive and convincing beyond words.

Both pictures show the prolific bearing of the orange and lemon under favorable conditions. The early fruiting of the orange is shown by the photograph of a tree in the orchard of H. A. Mayhew, situated at Niles, in Alameda county. The lower engraving shows a lemon branch from a tree growing on the Tejon Ranch, near Bakersfield, in Kern county.



#### New Citrus Varieties.

At the last meeting of the State Horticultural Society, Mr. B. M. Lelong showed two interesting citrus fruit varieties which are but little known in this State, but which may become of prominence and value.

One is the orange of Joppa, taking its name from the famous old seaport of Palestine. The fruit shown by Mr. Lelong was grown upon scions secured in Joppa by a Californian traveler who saw the fruit there and brought the scions home with him.

The orange is large, seedless, exceedingly fine grained and free from "rag"—the significant term which is applied to the fluffy white layer which lies between the true skin and the pulp. The orange though seedless has no rudimentary seed vessel which forms the characteristic mark of the Navel orange and occupies part of the space of the fruit with a non-edible material.

The other fruit shown by Mr. Lelong was a genuine Villa Franca lemon grown from stock secured in Portugal. Mr. Lelong claims that the common Villa Franca lemon as grown in California is not true to name. Among other objections in this common variety is a sooty foliage which does not properly protect the fruit. The genuine Villa Franca has good foliage.

As the stock of these varieties is now introduced and bearing fruit in this State, the distribution of them will no doubt soon be effected.

The area suited to the lemon is not so wide as that on which the orange thrives, and yet California is advancing in the lemon industry and the fruit will bring the State a grand revenue.



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## THE STOCK YARD.

### The English Fat-Stock Shows.

**EDITORS PRESS:**—The year 1890 was a winning year for Shorthorn cattle. All the champion prizes of the year, both in England and in America, were won by cattle of that breed. Not only at the fat-stock shows, but at the exhibitions of breeding stock throughout the country, as well as at the London Dairy Show, where the premiums are awarded according to both the quality and quantity of milk given, have the Shorthorns been victors.

The Birmingham and Smithfield Fat-Stock Shows have always been considered the two leading exhibitions of the world for that class of stock. For a year or two the American Fat-Stock show held at Chicago was a strong rival, but according to the most authentic reports that institution is on the wane and it will require some very energetic management to bring it back to its short lived grandeur. The number of fat cattle of all breeds at the respective exhibitions of which we have any account up to date for 1890 are as follows: Chicago, 109 head; Norwich, England, 91 head; Birmingham, 217 head; and Smithfield, London, 284 head.

Some account of the Chicago show was given in the *RURAL PRESS* of Dec. 27, 1890.

Of the Norwich show, the *Mark Lane Express* says: "The fat-stock shows of the year commenced on Thursday last (Nov. 20th), when one of the best exhibitions we have seen at Norwich opened its doors.

"The cattle classes were, on the whole, good. "In the two-year-old class for steers of any breed, the premium was awarded to a Hereford and Shorthorn cross, described as a really good beast, the second premium going to a long, level, ripe Shorthorn; a pure-bred Hereford takes the reserve and h. c. (highly commended).

"The premium 2-year-old roan steer, just over 35 months old, girths 8 feet 9 inches, and has a weight of 2140 pounds, a daily gain since birth of 2 lbs. 0 1/2 ounce—a remarkable figure for a beast of that age—say 1060 days.

It is rare, indeed, for an animal to make as great a growth as 2 lbs. a day from birth up to the age of 900 days. This will be found to be the fact, I think, by any who will take the trouble to look over the tables of weights and ages given at any fat-stock show on either continent. I do not know that the above record is unprecedented; at any rate it is one of the best, if not the best, in some years, for a bull of that age. The best and heaviest growth for the year was 3.11 lbs. per day since date of birth, made by a Shorthorn calf exhibited at Chicago.

The third or reserve and h. c. 2-year-old, a roan steer, at Norwich, made the remarkable growth of 588 pounds gain in weight since last year's show.

Growth like the above not only are proof of extraordinarily good animals, but also of rare skill in the feeder.

In the Shorthorn cow class, a nice level white cow is placed first and a nice roan second.

In the class for cows or heifers of any breed or cross-breed other than Shorthorn or Red Polled, both premiums are taken by crosses between the Shorthorn and Polled Angus breeds. Premiums are given for cattle bred and fed in the county of Norfolk.

In the classes for steers, the premiums are all awarded to crosses between the Shorthorn and either Hereford, Polled Angus or Red Polled breeds.

In cows, the first premium was awarded to a roan Shorthorn and the second to a "ourious cross between a Hereford bull and a Red Polled cow. The result is a perfect Hereford in miniature."

The Norwich Show was followed by the Birmingham Cattle and Poultry Show, of which the *Mark Lane Express* of Nov. 24th says:

A comparison of the returns which have been published shows that the entries for this, the 42d annual exhibition (November 29th and December 1st, 2d, 3d and 4th), considerably exceed those of former occasions, and the resources of Bingley Hall will be taxed to the uttermost in order to provide the necessary accommodation.

Ninety breeds of poultry and 115 varieties of pigeons will be found represented in the 4022 pens which make up this extraordinary collection, and 20 judges are required to award the prizes in this section.

The *Agricultural Gazette* says: There are 27 entries of cattle, and a very fine display they make, the various pure breeds being well represented, while the section for cross-breeds is, as usual, of a very interesting description. The success achieved by Her Majesty the Queen is even more marked than it was last year. The Elkhington Challenge Cup again goes to an animal from the Royal Farm at Windsor, and having been won two years in succession, this trophy becomes the absolute property of the Queen, a victory that has only been achieved twice before in thirteen years, by Mr. John Price with his Herefords, and Mr. Clement Stephenson with his Aberdeen-Angus. The Queen gained the prize last year and this year with Shorthorns—both, it may be remarked, bred in the north of Scotland, and in the same county. The Elkhington Challenge Plate is given for the best animal in the cattle classes, but the President (the Earl of Aylesford) offers a prize of £25 for the best animal bred and fed by the exhibitor, and this also falls to the Queen with a beautiful Devon. Moreover, in addition to four first-

class prizes, Her Majesty secures the special prizes for best Devon, best Hereford and best Shorthorn—a series of successes that, we believe, is unparalleled, and which reflect much credit on the skill and care bestowed upon the selection, feeding and breeding of cattle on the Royal Farm.

Another point that may be noticed is that the society has cut off one of the prizes for steers above three years old. This has had the effect of diminishing the entries of these, and it is only to be expected that before long the classes for over-aged animals will disappear altogether from the fat-stock shows. With the development of early maturity they have survived their usefulness.

In regard to the doing away with prizes for over-fed and over-aged beasts, the American Fat-Stock Show is ahead of the English, in that the managers have already given notice that after 1890 no more prizes will be offered for animals over 36 months of age. This is progress in the right direction, for if, in these days of boasted early maturity in cattle-feeding, they cannot be fully ripened before the age of three years, we might as well give up breeding and fattening pure-bred cattle, keeping the several breeds distinct and all that, seeing that the cross-bred beasts generally make as good a growth as any of the pure-bred animals. Especially was this the case at Birmingham, where a yearling cross-bred Shorthorn and Galway showed a gain per day of 2.37 lbs. since birth, age 581 days. However, this is nearly equalled by a Shorthorn, age 631 days, weight 1481 lbs., daily gain 2.34 lbs., there being so slight a difference in daily gain that the 50 days' difference in age probably makes the animals about equal, if not fully so.

These two animals had made the best use of their time of any in the show—not one that was over two years old having made as much as two lbs. per day, while all the Shorthorns under two years old had made a growth of over two lbs. a day since birth, no other yearling class of any breed having done as well.

The folly of keeping fattening cattle till they are over three years old, or even after 30 months of age, is apparent from the limited growth made by animals over that age when compared with that of those under two years old.

The *Mark Lane Express* of Dec. 8th gives some account of animals sold at the Birmingham show, among which were the Queen's Devon bullock, which won the first prize in its class, the £50 (\$250) prize offered for the best Devon, and was also reserved for the Elkhington challenge cup, was sold privately for £93 (\$465); and her first prize steer in the middle class was also sold for £35 (\$425). A white Shorthorn steer, two years and nine months old, was sold for \$287, and a fine, fat cross-bred Shorthorn and Polled Angus heifer, two years and five months old, for \$250.

#### Ensilage in England.

The same paper also says:

An interesting fact with regard to the extra stock classes was the good show made by ensilage-fed animals. For instance, Mr. R. Boddington of Colebrook Hall got the third place in steers with an 18-months' Shorthorn, weighing 11 cwt. 2 lbs. This animal was fed on a mixture of cornsack and silage, the last-mentioned ingredient being used as a substitute for roots, and the same amount of corn and cake having been given as would have been given with roots. In the same class were two other animals, which do great credit to the ensilage system. Mr. Boddington's beasts had no hay, and at the show they refused to touch the hay provided for them, keeping exclusively to their favorite silage.

Having no account of the Smithfield show beyond the opening day, Monday, Dec. 8th, I leave that for another week, when I may also have something to say on the recent London dairy show.

ROBT. ASHBURNER.

Baden Station, San Mateo Co.

## THE VINEYARD.

### Charles Krug on the Wine Interest.

In an article for the St. Helena *Star*, Charles Krug, the well-known vigner, writes as follows:

The wine industry of California appears for the past four or five years in a rather depressed condition. [Overproduction is considered by most of the vinemen the cause of the depression. I do not fully agree with this opinion. Overproduction of a low grade of wine is the main trouble. Ordinary or poor wine always found as quick a sale as those of good quality. Good and poor wines brought the same price. This caused the discouragement in our business; ambition among the vinemen was badly suffering. Can you, for instance, expect that our wine-growers shall raise vines producing small crops but of superior quality, as Cabernet, Miller, Burgundy, etc., instead of heavy-bearing Malvoise, and shall they raise Zinfandel on the hillside, producing fine claret grapes, instead of Zinfandel on rich bottom-land, producing double and triple the quantity of wine, but 50 per cent lower in quality than the hillside grape, when the price is the same for good and poor wines? There is no overproduction of fine wines; it is overproduction of those of poor quality. But phylloxera will change this situation before long. Destruction of vines is increased by its attacks every year. A good many wine-growers are now replanting the land of their destroyed vineyards with well-paying fruit trees. Energetic and ambitious ones, however, replant with resistant stocks and graft them with the finest varieties of vines, lately preferring the fine claret

grape. The production of wine therefore is decreasing, but the quality is greatly improving. The present advanced prices of brandy will lessen the quantity of poor wine offered for sale, therefore wine-growers, do not lose your courage when prospects are brightening.

It is undeniable that our situation will soon be improved, when production of wine is now decreasing and quality considerably improving. There is still another, a third point coming to our assistance. Consumption of California wines is considerably increasing in this country. Read the statistics published in the *Wine and Spirit Review* and you will not doubt the truth of this. Five years ago 3,000,000 or 4,000,000 gallons of wine were used on the Pacific Coast, where to-day over 6,000,000 are used. During the month of October last, shipments of about 1,000,000 gallons of wine were reported. Times will improve, particularly in Napa county, where the capabilities of cellars and the energy of a good many wine-growers will cause the desired change. No county in the State has a larger number of solidly built cellars than Napa, and the elegant and immense one of W. B. Bourne of St. Helena is undoubtedly the best, finest and largest in America. The size and solidity of these buildings enable its proprietor to age and improve wines and establish markets for his fine products. We find among the wine-producers of this country a larger percentage of independent dealers of good wines with larger stocks on hand than in any other country.

### Vine-Grafting.

In an article published in last week's *RURAL* we gave the introductory part of Prof. H. Mann's instructions for vine-grafting as communicated to the *Napa Register*. The writer continues as follows:

I prefer to graft when the stock is large enough to hold the scion firmly, say one inch or an inch and a half in diameter. There is then less danger of the scion being moved, no tie is needed and there is really no time lost, as the graft can bear nearly a full crop the season following, and even a partial crop the first summer. There are many methods of grafting, all successful enough if well performed, but the simplest and quickest for the novice is the common cleft graft. For this we need for large stocks a fine sharp knife to cut the scions, a saw and grafting chisel. The last-named, any good blacksmith can make from a straight piece of steel, the blade to be about 2 1/2 inches wide, the two ends of the bar bent around in the form of a wedge.

A wooden mallet will complete the equipment. A common budding knife is as good as any, because they keep a good edge. If the stocks are not more than one inch in diameter, a pair of pruning-shears can take the place of the saw. Three good men are a convenient force, one to dig around the stocks and cut them off, one to cut the scions and insert them, and the third to cover up after grafting.

#### The Modus Operandi.

Let the first man take away the earth from the stock with a spade, to a smooth place in it for the insertion of the scion; in resistant stocks, as near the surface as such a place can be found, as it will save labor in cutting off the roots which the graft may throw out at the junction, if far below the surface. Then the stock is cut off horizontally with shears or saw, as the case may be. The grafter now follows, and it is needless to say that he should be the most skillful of the three. The scions should be of medium size, short-jointed wood, about the size of a common lead pencil or somewhat larger, and, of course, well-ripened, as on their careful selection depends most of the success. I prefer to have them 18 inches long, as the upper buds, which will throw out the young growth, will then be about the height to form the future head of the vine. The number of buds will also prevent stagnation of sap and black knot, and also bear a partial crop the first summer. The scion is cut to a long, sloping wedge of, say an inch or even an inch and a half long, just below the lowest bud, with the bud on the outside of the wedge, and the inner side somewhat thinner. Then split the stock with the chisel. To make a solid "fit," the stock should be cut about an inch and a half above a joint or node, which will prevent its splitting too far. Hold the cleft open with one of the wedges, and push the scion down firmly, taking good care that the inner bark or cambium of stock and scion meet, for on their close junction depends the success to a great extent. If the stock is only an inch in diameter, one scion will do. If larger, I prefer to put in one on each side, as it doubles the chances. If both live, the weakest can be cut off next spring.

Our third man now follows. If the stocks hold the scions firmly, no tying is necessary, but in some cases it may be advisable to pass a strip of some good material around the stock, to make a firm junction. Press some moist earth on and around the cut, which is all that is necessary, and then fill up around it with finely pulverized earth, up to the upper buds of the scion. This will keep the sun and air from it, and the young shoots, when they appear, will easily penetrate the fine earth.

If suckers from the stock appear, they should be removed promptly, but care should be taken not to move the scion in any way. Do not be discouraged if these do not grow until a month or two after the operation.

They will keep coming out as late as August, and the later grafts will often make the strongest growth when they do start. With every operation thoroughly done, and good scions and stocks, 90 per cent should grow. It would seem needless to say that the grafts should be staked and tied, to prevent their blowing off. I will discuss varieties in my next.

## SHEEP AND WOOL.

### Wool from a Manufacturer's Standpoint.

[A paper read by C. G. ROBERTS at the Farmers' Institute recently held at The Dalles, Oregon.]

In presenting this article on "American Wools from the Manufacturer's Standpoint," I propose to consider equally the best interests of both the wool-grower and the manufacturer. In much their interests are identical, are closely allied to each other. The manufacturer ought to and must have the various classes and conditions of wool necessary to produce the fabrics our people buy, and certainly the grower's interest is to produce and supply the manufacturer with those qualities he needs for that purpose.

It would be hard to estimate the sacrifice made by the manufacturers to the growers in the convention held at Syracuse, N. Y., in 1865, the effect coming into operation in 1867, when they agreed to the higher duties on wools imported, which they had been accustomed to use especially in the production of the higher classes of goods. It was hoped, we may say believed, the promises made by the American Wool-growers' Association that the higher duties would encourage the wool-growing industry; that all classes of wools would in abundance be supplied; that soon we would be independent of foreign wools, and thus firmly establish another great and important industry within our own borders. The public as well as wool-growers have a dim, hazy impression that this has in a great measure been accomplished, and flatter themselves accordingly; but the facts in the case are very different.

#### The Fine-Wool Product.

The fine working-wools furnished us are practically comprised inside the limits of the older wool-growing districts situated east of the Missouri river. These wools, many of them, approximate closely in value to the best foreign but, instead of increasing the production to replace that hitherto used, it is sufficient to note, and avoiding going into statistics, that there is less produced now than there was 25 years ago.

The great expansion in the wool growth of the country has been in the newer States and Territories west of the Missouri. This has been of great magnitude, and so far as that is concerned, no dissatisfaction can be expressed, but in quality, irrespective of quantity, is found the great fault which we note the second and great failure.

So far, then, and after a generation of beneficent legislation in behalf of this special interest such as no other wool-growing community in the world has or does enjoy, it is bluntly claimed, disagreeable as the fact may be to those most interested, that the American wool-grower has not performed and come up to his part of the agreement; that he has not fulfilled his proposition and produced for the use of the manufacturers the various qualities and staples he positively requires to manufacture the goods his business demands.

Let us first investigate the conditions necessary to attain in the merino blooded wools. Length of staple is not of first importance, the short staple being of as much importance and necessary and nearly as valuable for carding wools as are the longer staple merinos for combing purposes, but we must have strength, fineness, elasticity and softness, so that in every operation or process in the various stages it passes through in the factory the rich, soft handling improve. This is the most valuable quality required in these wools. Now what is furnished us in the great wool districts? A merino which in nearly every instance works "hard," as it is technically termed, that is, in finished goods handles briefly and rough and having an entire absence of those conditions which give the pleasing finish in high-class goods. The staple is mostly tender, much of it actually frayed. Whole sections produce little else and were the choicest produced, and in this city of The Dalles from the John Day and Canyon City you receive what, by common consent, is admittedly the best produced in Eastern Oregon. From some cases these never sell on the second pound in Boston, New York or Philadelphia within 20 to 30 cents as do the Australian, and yet both are bred from merino sheep. Why this great difference in value? Be assured the manufacturer understands what he is doing and that he buys according to the intrinsic value to him for these two qualities and that there is a just discrimination.

You will note, therefore, that on account of the limited quality of the really superior wools and the larger of medium to low, our mills are practically confined to the manufacture of the medium and low classes of goods, and, in the excessive quantity produced, with the forcing process necessary to put them into distribution, you can quickly understand the difficulties under which our mills have struggled for some years past, and also why the manufacturing of woollens is termed justly "the



most depressed of the American industries." The continued increase in importations of fine wools, both ladies' and gentlemen's dress goods, the increasing demand for fine wools, so that we might furnish the market with at least a fair proportion of these higher-priced goods, ought to show that something is wrong somewhere.

The American manufacturer can claim justly, we believe, that he is equal in skill and ability to his foreign competitor, but he must have equal materials to effect equal results. None of us "can make a silk purse out of a sow's ear."

#### Mission Blankets Made of Imported Wools.

The old Mission mills of San Francisco were most favorably known over the Pacific Coast, and even over the continent, but in the finish, softness, wearing qualities of these goods they had but little assistance from the California wool-growers. It was the imported Australian fleeces, blended or mixed with native wools, or used entirely, that raised their fabrics to the high standard they attained. When these mills took the gold medals at the Paris and Philadelphia Expositions for the finest blankets produced in the world, they were not made from native wools; there was not then or now any fleece raised in the United States which could have produced the same result—that wool was raised in Saxony and was bought in Scotland at a cost of \$1.12 per pound, this price for wool shrinking 40 per cent.

This wool cost, scoured, duties paid, etc., \$2.70 per pound, and yet this was cheap enough, as these 12 pair of blankets were sold for \$1200. We mention this in detail to illustrate to growers the prices which are possible to gain in the production of the finest wools. Now such wool and costing such prices is always on hand in the European high-class mills. The demand and consumption is steady and certain. Not much is used, it is true, but for certain purposes in manufacturing it is essential, and it is ready for use when wanted, and unless you produce similar staple we are certain to be discounted. Produce us such staple and we can stand on an even footing with foreign manufacturers. You promised us all kinds and conditions in abundance. This was the statement: "We can soon produce all the clothing and combing wools we need, that no admixture of foreign wools is required to give success to wool-growers or wool manufacturers."

I won't profess to know anything about breeding any class of wool. That is not the manufacturer's business; it is solely the grower's. But we are all interested in the necessary improvement and so may legitimately make an inquiry into the matter. Climate and environment are generally admitted to have much to do with the quality of staple. An outsider might well doubt from results if we really do possess the best conditions in that direction; but here again those who do know whose business it is to know it, the growers, claim to have them to raise all the classes. We must take that for granted, then; it adds so much the more to their responsibility. Is the business on an average so profitable that any extra exertion on new lines seems unnecessary and financial pressure does not enter as a competition to improved values? Is the business to many growers considered as of a temporary nature, but only to make a quick "stake," so that improvement, patient, experimental, possibly costly, and lengthy, is no part of the business and does not enter into the wildest dream?

#### Have We Fine Merinos?

Is the business so very unremunerative that he has no means at command wherewith to improve his flock to the highest standard? Can the type of merino you have be improved? Is this mixed and mongrel merino you breed in the West the best you can do or the best that can be done? The German authorities declare (in analysis of such facts we cannot get superior authorities) that "a mongrel is always a mongrel," and that sheep cannot be improved by arithmetical progression; that there is a point where improvement stops. You think you produce fine staple, but how about your inability to produce a merino that works soft and kindly in the processes of manufacturing, instead of hard and harshly as mentioned before? You have yet to overcome that problem; that most important point where progression falls and stons, and so the mongrel is always a mongrel. Now, why not improve from thoroughbred ewes as well as rams and so give it a fair trial? Have you equal to the best merino-blooded sheep in America? You claim to have, and indeed we all know very well, you claim to have in the distinctly American merino the best in the world. The Australian growers don't think so, and judging from their products, it may be admitted they know something about their business. I noted the final verdict in the colonial papers on the few shipments of Vermont bucks made some years ago. It was condemnatory. There was nothing in quality superior that made them especially valuable to them, and they produced too much natural yoke or grease.

I have scoured hundreds of bales of Australian wools unwashed—that is, with all the natural grease in them—and they shrink from 50 to 52 per cent. Yours average 10 to 15 per cent more of what is purely a by-product and valueless. It is worse than valueless; to the grower it is a cause of expense for transportation. Also, there seems occasion for inquiry

if it doesn't cost you just as much to produce that 10 to 15 per cent of grease which ought to have gone either into mutton or wool. To the manufacturer those heavy, greasy wools must always prove objectionable, and more especially if they had access to light, shrink wools. The greater difficulty of estimating shrinkage in the first place is in buying; again, in a technical way, unnecessary obstacles are placed across the path in getting it into a clean, scoured condition. If his scourer makes a slight blunder, or is careless or at all incompetent, he may use too much of the alkalies used in scouring, thus destroying the enamel of the wool and the wool will work harder still; he may even make it tender in staple. He is apt to leave a residuum of grease in the wool, and in this condition sent to the dyer he makes the effort to color on top of the grease, and this is the primary and most fruitful cause which some of our American factories have acquired of an unsavory reputation of poor or fugitive colors. Lighter shrink wools would save much of this annoyance and expense, and you a better market for the wool.

No wonder the Australian grower found objections to this peculiar feature in our bucks; their competition in the world's markets teaches them the necessity of studying the manufacturing requirements and interests as well as their own. The advisability of shelter and feeding in winter, of dogging and hounding a flock half to death (and this will, I have seen it, deteriorate wool in a remarkably quick time) and many other points in the management, might also be worth investigation, but it would only result in an inordinately long article, and these we may safely leave to the grower; his interest will make him give attention to them.

#### Natural Conditions Favorable.

Now, nearly every point mentioned above applies to our long-wooled breed of sheep, while in the high, dry plateaus east of the Cascade range we find a natural home for the merino blood, and where the improved breeding of the same ought only to be encouraged. We find in the climate and surroundings of the Willamette valley and district on the western slope as natural a home for the breeding of the best types of the Leicester, Cotswold Down and their crosses. What occasion is there for the importation, annually, of from 10,000,000 to 15,000,000 pounds of such wools from Canada, England and New Zealand when one part of Oregon could do it just as well as not?

Instead of 200,000 head of generally scrubbed animals of these long-wooled breeds it might carry 2,000,000 and produce 12,000,000 pounds of the highest-priced wools and yet not be nearly as heavily stocked as in England and Scotland, with climate and conditions somewhat similar. It is impossible to overestimate the business impetus to merchants as well as producers such a clip as this would create to all interests in that part of the State. Why don't the farmers there realize to some little extent, at least, that trust of sayings an old master left behind him when he wrote: "Sheep is the profitablest cattle that a man can have." It furnishes them an important source of revenue, and is the readiest means of maintaining the fertility of their fields.

I believe that in that district we have every natural condition to produce these long wools inferior to none—the Leicester, with the clear luster; the cheviot, with its substantial wearing quality, its softness and flexibility enabling a manufacturer to spin it two or three ply, as fine as the ply yarn made from the coarser flanks of some of our underbred so-called merinos or the scrubby stock from the valley sheep, and which an American citizen buys for—and is badly sold when he does buy it—a cheviot suit, but which has not the first element of merit of a real cheviot suit, which he, the grower, ought to have furnished as promised, and must admit to have not even made an effort to do so. I don't suppose there is a cheviot sheep in America, or has the slightest effort been made to get one, and how can the manufacturer produce these valuable goods without the wool? Now, I am American enough to believe that an American is desirous of the best of everything so long as he pays for it, that he ought not to be confined to the wearing of cheap goods; and I differ altogether from that sentiment of the Hon. John Lawrence, of Ohio, and others of the American Wool Growers' Association, when he (admitting at the same time that we could in three generations of sheep produce the highest lustrous wools) said that our ladies, if they would have dresses made of such wools and must get them abroad, they would have "to pay dear, very dear, for their whistle." Now, when growers claim that they can, yet don't, produce those very wools which will enable us to clothe our lady friends in luster as fine as any tradesman's wife or bedecked "my lady" in Europe, they ought to be exhibited as public curiosities, as I am sure our mothers, wives, sisters, sweethearts are worthy of it; deserve it; ought to have it, and will have it anyhow.

Now, can anything be done to give some impetus in a proper and more creditable direction? Merchants and all interested in the distribution of commodities ought to be as anxious for this as wool-growers and manufacturers. That mine of wealth has hardly been opened and cannot compare with what it ought or might be.

#### What of the Future?

We are now at the beginning of another period of higher duties on wool and its substitutes. Whether you retain their aid or lose it completely, depends on what you do in fur-

nishing the raw materials they need. The financial prices in their business must in future be in their ability to produce the higher class and higher priced goods. In not furnishing the necessary wools, you are an obstacle and hindrance to the higher art in woolen manufacturing and its advancement to that plane that can successfully compete with foreigners, and that we have a right to expect of it. The manufacturing interest is now too powerful and important in wealth, numbers, and brain power to resignedly sit still and quietly let their interests be destroyed or injured, and unless greater progress is made by growers in the future than in the past, and they continue forgetful of their obligations, privileges and advantages, if they persist in squaring with the motto: "It is more blessed to receive than to give," it can only meet with a justly deserved rebuke in the contempt and the stern condemnation not alone of the manufacturer, but of an intelligent American people.

It is not a pleasant task, sometimes, to tell the truth. It is, however, generally our best friends who do it, and I earnestly wish, for their own interests, that the too often amusingly ignorant conceit the average Western wool-grower possesses about the conditions that go to making a true wool, and the high opinion he believes his own clip to possess, no matter how little merit may be in it, may be forever dispelled, and that he could moralize, as did Burns, on seeing that little insect on poor Jenny's bonnet in church one Sunday:

"Oh, wad some power the giftie gie us  
To see oursel's as ither see us,  
It wad frae mony a blunder free us,  
And foolish notion."

I trust this candid, plain article may assist in spurring on to great improvements our friends, the wool-growers, with many of whom I have broken bread, eaten salt, and (figuratively speaking) broken the bottle, and whose truest, permanent prosperity has my heartiest good-will and assistance when possible.

C. G. ROBERTS.

#### The Mohair Situation.

EDITORS PRESS:—The importations of foreign mohair have been quite limited recently, caused by the slack demand for foreign stock; consequently there has been a reduction in prices at the foreign ports of importation. This has caused a corresponding temporary depression with our home productions.

The market at present is easier on the manufactured goods, especially demi-lusters, but full-luster goods are always in request and at stable prices.

As the adaptability of mohair plush is being developed for various uses, the demand for the future would seem to be beyond the supply. This mohair question is a momentous one for this country, and is yet in its infancy. It is only a very few years since plants of any importance have been successfully established and maintained, but the improvements in quality and style, together with improved machinery, have developed with such rapidity that even at these early stages foreign manufacturers find great difficulty in successfully competing with our home productions.

Our manufacturers have been very wary until recently in using our domestic product, objecting to its quality and condition, and even now it requires much diplomacy to convince them to the contrary; and it now rests with our growers whether, by careful attention to breeding and care of their flocks, they will bring their stock up to the standard of the foreign hair. We have the climate and soil and can produce as fine a quality here as in any other country. All we require is determination and pluck on the part of the growers to bring out these requisites.

The erroneous impression that we cannot successfully compete with foreign hair is a fallacy, and is so accepted by the more intelligent manufacturers; and the time is not far distant when we shall be able to meet all home demands and not be at the mercy of foreign competitors.

We shall be pleased later on to forward to you our annual collated statistics of the mohair market for 1890.

WM. MACNAUGHTAN & SONS.

New York City.

## AGRICULTURAL ENGINEER

#### Improvement of Roads.

A correspondent of the Stockton Independent writes thus pertinently upon the subject of highway improvement:

That good highways are necessary to high civilization is a maxim in government. Ages ago the Saxon law required of every citizen what was called the *trinoda necessitas*—the three-fold necessity. It was to repair bridges and ways, to maintain garrisons and to repel invaders. The reason is obvious. Macaulay says that the alphabet ranks first and the highway second among the agencies by which man has passed from savagery to civilization. No man, whether he ride or walk, whether he be a millionaire or a tramp, but is interested in having a good road over which to pass. No man ever sits down

to his dinner; no horse is ever fed a pound of barley; no child ever drinks a cup of milk or eats a piece of bread and butter, that has not paid toll over a country road, and it is self-evident that the better the road the higher the toll.

These considerations are of peculiar force to an agricultural people like ours. Careful estimates based on accurate experiments show that on an average it costs more in America to carry a bushel of wheat from the field to the shipping point than it does to carry the same bushel of wheat from the shipping point to the seaboard.

The price of wheat is fixed in London. A great and permanent increase in price cannot be hoped for. The only chance for increased profit is to diminish the cost of production. The cost of plowing, seeding and harrowing cannot under present conditions be very much lessened. The same may be said of harvesting, sacking and freighting. There seems to be only one point where any saving can be made. That is in carrying from the farm to the landing or station. This can be done by means of better highways. No one who has not studied the subject has any idea of the enormous amount of expensive power which is every day wasted in this country.

To illustrate: Experiments made in 732,000 cases show that an English horse does twice as much work as an American. He is no heavier, no better bred and no stronger, but works on a better road. The Americans, therefore, feed, care for and use twice as many horses for road freighting as they need. It costs less to keep a mile of good macadamized road in perfect repair than it does to feed one poor horse. Prof. Jenks, an authority on this subject, says:

"In the State of Illinois a full load for a two-horse team can be carried for three months of the year, two-thirds of a load for three months, and half a load for six."

In San Joaquin county the rate would probably be a full load for six months, half a load for three months, and none at all for the remaining three. To quote further from Prof. Jenks' report:

"The Illinois roads cost \$15,346,000 per annum in extra hauling and reduce the value of farms at a distance from railway depots over \$160,000,000. If Illinois spent \$250,000,000 on good roads, the interest on this sum would leave enough of the sum now spent on hauling to build a new State capital every year, to say nothing of the nervous wear and tear and the prismatic profanity induced by country roads when the frost is coming out. Good roads would save the State taxes every year and the labor misdirected and wasted now would go far toward making good highways."

In New York City a careful and accurate estimate shows that there are 12,000 trucks carrying an average load of one and a half tons for 12 miles on each of 300 days in the year, at an average daily cost of \$4 per truck. Sixty-five million pounds are thus transported one mile in every year at a cost of \$14,400,000, or over 22 cents per ton per mile. The same goods are carried in that State by rail at six-tenths of one cent per mile. On asphalt pave the same horses could haul three times the above amount, which would save nearly \$10,000,000 per annum.

Elaborate experiments show that 200 pounds traction force will draw a ton on a good dirt road in first-class condition. One hundred pounds will do the same work on macadam, 33 pounds on granite blocks and 15 pounds on asphalt pave, such as Center street in Stockton. It has been demonstrated beyond a doubt that a locomotive can haul a ton of wheat more cheaply than a farmer can haul a bushel, and it is very doubtful whether a locomotive could move at all over an ordinary country road. Our noble, patient, much-abused horses are simply living traction engines, and every advantage that could be given to a machine by a good road can be gained for them. They are entitled to it. They ought to have it.

General Q. A. Gilmore has made a series of accurate experiments with a dynamometer, which proved that any one of the better class of permanent roadways would enable a team to draw on a level about four times the amount drawn on a common dirt road.

These startling facts have attracted the attention of the people East. The result is a movement for better highways, which is one of the most universal and powerful agitations our country has known for years. The wealthiest, the brightest, the most learned men in America are giving to the subject of roadway improvement their very best efforts, and the results are wonderful.

The city of Buffalo has over 60 miles of the best streets in the world. This improvement is a monument to Grover Cleveland, who started the movement while mayor of that city. The repairs on these streets in the last six years have cost less than \$100. In Georgia and Pennsylvania public meetings for consultation on this subject are frequent and large. In New Jersey a fine road system is already in operation. The Governors of Massachusetts, New York and Ohio have addressed special messages to their respective Legislatures on this subject. College presidents, carriage builders, farmers, great physicians, civil engineers, railway presidents and men of eminence in all occupations are lecturing and contributing to gather information. Great journals, like the New York Sun, are writing and publishing special articles in the same line. The movement will soon be here and will bear fruit.



## PATRONS OF HUSBANDRY.

In our Rural Press Official Grange Edition, issued every week, will be found additional matter from this and other jurisdictions, of interest and importance to Patrons. Any subscriber who wishes can change free to that edition.

## Farmers and Organization.

" 'Tis true 'tis pity,  
And pity 'tis, 'tis true."

EDITORS PRESS:—The Patrons' department in the *Tulare Register* is now numbered with the innumerable trifles of the past; trifles which loomed up with magnificent prospective proportions, with the very best intentions at their back and the widest field on which to stand, and yet hardly left a ripple on the surface to indicate where they had been.

The *Register* man attempted a little ripple, a sort of requiem, over departed hopes and wasted energy and a slight reflection on wasted generosity. His little ripple fairly huddled over in pessimistic prophecies of the present tidal wave of Alliance effort. Of course he has as a basis on which to place his augural tripod the mistakes and failures of the Grange which were its necessary foundation of experience and the general tendency of farmers to "go it alone" and "get left."

Farmers have been and are the easy prey of speculators and the whole brood of middlemen, who have so got the combination of circumstances and organized conditions that the farmer must sell at the cheapest and buy at the dearest; and the combination is so set that the farmer must gradually gravitate to tenantry, the serf of the lords of the land who toll not, neither do they spin. The annual increase of farm mortgages indicates too plainly the future of the toiler on the soil. It is easy, then, to predict.

If no new factor enters into the present arrangement of things, the tiller of the land will not be the owner of the land. If he continues, as a quotation in the *PRESS* puts it, to go on "economizing, cursing the ring politicians and voting the old party ticket," working as he must all day and every day, with no time to meet his brother unfortunates in farming, no time to read a farmer's paper and no money to spare for one, no time for anything but to raise enough to pay his interest and taxes and live at the lowest minimum rate—if that continues, the prophecies of the editor of the *Register* will surely come to pass.

But I do not believe that those pessimistic predictions will come true. I have faith in the general intelligence of the farming community, and the only reason why farmers have not acted so as to bring about the best results is simply because the matter has not yet been so brought before them that they could see it.

The Grange has made some mistakes, but its face is toward the light, and while the Grange may yet feel the smart too keenly of burnt fingers to act hastily, there are in her actions educational lessons which may yet save the farmer. But it is the Alliance which is now the seen of all beholders, the "fly blister" on the old parties and the keenly watched by business men; for if the Alliance succeeds in carrying out its purposes, it will revolutionize the political, mercantile and agricultural worlds, as the Grange would have done had it succeeded.

I do not believe, I cannot believe, that our present system of society can go on and reach the ultimatum indicated at present—the division of society into two classes, a few capitalists with the remainder of mankind as slaves! I dare not believe that evil is the supreme providence of the world; that the only progress is in the line of wealth; that all that is involved in this world's existence can only evolve sensuality and selfishness, dominant greed and servile subservency. No; the spiritual in man will at last assert itself. The man will be the victor; and not what a man possesses, but what he is, will be the prominent feature of his estimate in the eyes of his brothers and sisters.

Neither the Grange nor the Alliance may effect this—the certain destiny of man—but they will be no mean agents in its accomplishment. The farmers may be slow in taking needed lessons, but I think they are taking rapid steps toward the schoolhouse.

The first lesson the farmer needs is to transact his own business; the next is co-operation to render the transaction more effective, not for the purpose of crowding out other people, nor compelling consumers to pay the price farmers may demand, as his agents now do, but to co-operate with the dweller in the city, the mechanic and the manufacturer.

This is the lesson the Alliance is holding up before the farmer, the lesson the Grange has been talking about so long, and the lesson the farmers are beginning to con over and learn. In their effort to spell fraternity and justice, some mistakes will be made; tricksters will introduce themselves, and tricks will be resorted to by the agents of the old to prevent the success of the new, and even farmers may and likely will be parties to the trick; for with all the goodness in the movement, we are not all saints; in truth, I have met with very few saints.

I have spun my yarn longer than I intended, but when my pen gets loose on its favorite subject, I never know when or where it will stop.

To the editorial staff and readers of the *RURAL PRESS*, I send my New Year's greeting, wishing all a happy and prosperous New Year.  
*Tulare, Dec. 31, 1890, J. W. MACKIE.*

## The Master's Desk.

E. W. DAVIS, W. M. S. G. OF CALIFORNIA.

The report of the Secretary of Agriculture, one of the members of the President's Cabinet—thanks to the Grange—is on my table. The document is a credit to Uncle Jerry Rusk, and will do the cause of agriculture much honor. If you have not received a copy, be sure to write for one, and when it is received be very sure to read it with care. Kindly reference is made to silk culture. This is pleasing to California Patrons, for we have been agitating that subject for some time past. But get a copy of the report and read for yourself.

Every young man should take an interest in politics—not party politics; he should not aspire to be a ward or saloon politician, but he should study political economy and know why parties are a necessity. Then knowing, he should rise above party and have partisans come to him. They will surely do this if the man is fitted to help and elevate the party. We want men in politics who are as pure and true as the principles they teach. The country needs and demands honesty rather than brilliancy in public life. Give us honest politicians and office-holders and we can endure any political party. Cultivate and equip the young men!

Secretaries and Masters of subordinate Granges must use the seal of the Grange on all official communications. It is truly surprising how few officers use the seal. During the new year use the seal. If you write an official letter without the impress of the seal of your Grange and do not get an answer to your letter, don't blame any one but yourself.

I hope every subordinate Grange in California will at once pass a resolution calling on the Senate of the United States to pass the Conger bill. Send a copy of the resolution, under seal of your Grange, at once to Hon. Leland Stanford and Hon. Geo. Hearst at Washington, D. C. The Conger bill has passed the lower house and is liable to die in the Senate. The bill is to prevent bologna and other compounds and adulterated foods. Act at once. Delay is dangerous.

Can the membership in California be doubled this year? It can if every member of the Order will secure just one member to his or her own Grange. Who is so little interested as to be unwilling to try to get one application for membership?

Do you know, if you use all of your opportunities to do good, that even then there will be many opportunities left for others? You can't monopolize the business if you would.

B. O. W. L. Overhiser, Past Master of the California State Grange, P. of H., has been engaged by the Executive Committee to organize new Granges and to reorganize dormant ones. Bro. O. will also represent the *RURAL PRESS*, the official organ of the State Grange of California. No community of farmers ought to be without a Grange. Organization is the key to success. Let the farmers of the State consult their own interests. To do this they must be a compact and intelligent body, with avenues for receiving and imparting useful information and for giving and getting financial aid. If any dormant Grange wants to know how to reorganize, or what the Grange has done and will do, let those interested call a meeting of farmers and give Bro. Overhiser notice. He will convince you that the Grange will do you good and not harm. The Grange is national, not sectional; progressive, not partisan; charitable, not stingy; useful, not idle; developing, not contracting; helpful, not binding; thoughtful, not thoughtless; prosperous, not puny. If you are a farmer, you ought to be a Patron. For further particulars about organization, write W. L. Overhiser, Stockton, Cal., or A. T. Dewey, 220 Market St., San Francisco, Cal., or E. W. Davis, Santa Rosa, Cal. An Organizing Deputy will be sent to any part of the State on application.

Spring will soon be here. Before we know it the hills, vales and valleys will be dotted with wild flowers. Already fruit trees are in blossom. The cherry tree in our yard is now white with blossoms. But the thought in this paragraph is, why not have a "Flora Day" in your subordinate Grange some time this spring? It is now time to prepare for it. Appoint a day in April or May, as will best suit your section, and allow Flora and the Worthy Lecturer to prepare a program. Have a feast, both for body and mind. Invite the public to the entertainment. Ornament your halls and tables with flowers. Have poems about flowers; sing about them, talk about them, think about them, praise them, for they are always your friends. Why not have a day for Flora?

The Legislature is in session. Farmers, to your post! Be on guard till the session adjourns. Watch your representatives. We don't want, and won't stand, the heavy tax-rate of the past two years. Keep an eye on the Appropriation bill, and another eye on the appropriators.

Permit me to suggest to the Masters-elect of subordinates that they appoint the following standing committees for the year 1891: Com-

mittee of two brothers and one sister on Delinquents and Dues. Let their duty be to collect arrearages from delinquent Patrons. A committee of two sisters and one brother on New Members. My word for it, if this committee is chosen with care, your Grange will soon have applications for membership. Then add a committee of one sister and one brother on "Fun and Instruction." If these committees are appointed and will go to work, your Grange will have no dull or idle meetings this year.

The Master of a subordinate Grange is the only person who is authorized to communicate the Annual Word to the members of a subordinate Grange. Remember that!

The officers of your Grange may be ever so willing and competent, but to make a success, they must have your help and your presence. The day of "wishing well" is past. The hour of labor has arrived. Let each one put the harness on.

Who can best work and who can best agree?

Which Grange in California is to make the largest per cent of gain in membership?

Report the name and address of your new Master and Secretary, as soon as installed, to Bro. Dewey, at 220 Market St., San Francisco, Cal.

## San Jose Grange.

EDITORS PRESS:—You will think it strange, probably, to receive a few lines from one who has been silent so long and who once more comes to the front to express his gratitude for the unity and good-feeling among the members of San Jose Grange. It now looks like old times when the Grange was in its palmiest days. With our hall well filled and old members coming back and meeting with us who have been absent for many months, and others talking of coming—all this makes us feel very much encouraged.

Our officers were installed to-day by our retiring Master, F. Dunn, in a beautiful and impressive manner, and it was gratifying to the installing officer to see every new officer present. Each was heartily cheered as he or she was conduced to his or her station and introduced to the Grange by the very efficient Marshal, after which the Worthy Lecturer called on Bro. C. J. Cressey, who was present for the first time since his return from the East, for a speech. He responded with one of his masterly efforts although feeling feeble from a recent illness.

Miss O. Calhoun gave us a song and accompaniment on the guitar, after which Grange closed to meet next Saturday (10th inst.), at 10:30 A. M., when we expect to confer the first and second degrees on a class of ten, which will test the mettle of our new officers.

We send greeting to all subordinate Granges and hope they may also have a revival.  
Jan. 3, 1891. CYRUS JONES.

[Thanks, Bro. Jones. It is very gratifying to observe so good an old soldier and Grange at the front again. Write often.—EDS.]

## Santa Rosa Grange.

EDITORS PRESS:—The last meeting of Santa Rosa Grange for 1890, held last Saturday, found the afternoon almost too short for the work to be done.

For want of time at the last meeting, the election of Trustee was deferred until this meeting.

E. A. Rogers was re-elected Trustee, and Miss Ella Mndrock, Organist.  
Mrs. A. J. Mills tendered her resignation of Ceres-elect, and Mrs. Fannie Bonner was only elected to that office.

Installation of officers takes place on January 10th (second Saturday) at 10 A. M. We hope to have a number of visiting Patrons with us on that day. We have invited the Worthy Master of the State Grange to act as Installing Officer. Of course there will be the usual Harvest Feast. Grange at 10 o'clock always means that.

A committee, consisting of Bros. Conlter, Strong and Chinn, was appointed to meet with a similar committee from the Horticultural Society and others interested in the World's Fair Exposition, at a public meeting to be held Jan. 3, 1891, for the purpose of organizing a local association for this county to act in conjunction with the State Executive Committee.

The following resolutions were offered and adopted:

*Resolved*, That Santa Rosa Grange hereby expresses its earnest protest against the appropriation of a million of dollars or any other sum of money from the State Treasury in aid of the Columbian Exposition to be held in Chicago in 1893. Also

*Resolved*, That Santa Rosa Grange hereby gives expression of its approval of the views of Postmaster-General Wanamaker on the postal telegraph.

That we may be kept fully aware of Congressional affairs, the Secretary was directed to ask some of our Representatives in Congress to furnish us with a copy of the *Congressional Record*, that it may be kept on file in our Grange hall for the use of our members.

Fraternally,  
T. L. G., Sec'y.  
*Santa Rosa, Dec. 31st.*

## Executive Committee and Conference Meeting.

Bro. George Ohleyer, at our request, has contributed so good a mention of the meeting at the office of the Secretary of the State Grange, S. F., Dec. 31st, that we have concluded to introduce it in our record of the event as being far more agreeable to readers than the usual formal official report of such proceedings, viz.:

The meeting last week of the Executive, Legislative and Co-operative Committees of the State Grange, held at the office of the Secretary, was well attended; not a member of the two former was absent. Never was there a more earnest and harmonious gathering of leading members of the Order than on that occasion. Each individual appeared to carry the good of all at heart and promised ready response to any demand that might be made upon his time. The Executive Committee audited bills and reviewed their field of labor generally, which it is gratifying to know is growing in prosperity and numbers.

Worthy State Master Davis was present in excellent health, and Bro. Cressey, improving. Both had much good news to relate about their Eastern trip, and especially of their visit to Atlanta and the National Grange. Bro. Davis presided at the conference, and many subjects of vital importance to the agriculturists were discussed with a zeal that presaged success.

Several measures to come before the present Legislature were discussed and the Committee on Legislation was instructed to attend the sessions of the Legislature and urge their passage before the appropriate committees. Among the measures prominently spoken of was a law providing for the assessment of property that had heretofore escaped. It was stated that such losses ran up into the millions, which of course had to be made good by the property of the farmers, which never escaped the eye of the Assessor. A statute was favored making taxes payable semi-annually, to the end that less money would be tied up in the State and county vaults, thus blocking business and restricting trade and reducing the circulating medium which is already below a healthy standard.

County road matters came in for a good share of attention, and it was unanimously agreed that the roads need more and better treatment. A farmer-lawyer and several actual and ex-supervisors were among the audience, and all agreed as to the evil, but were not so sure as to the remedy.

The general sentiment, as gathered without notes, was that the road districts were too large, rendering it impossible for the road-master to oversee the roads at the proper time. It was stated that in some counties the districts had several hundred miles of roads to be looked after, which happened generally in sparsely populated sections. Small districts and separate elections for road-masters were most favored.

If appointed by the supervisors, it should not be done on petitions, as the unworthy nearly always succeeded in securing the largest list of signers. The utility of hiring out the roads to the lowest bidder was doubted and the policy was not generally indorsed, though plausible arguments were given on both sides.

The discussion revealed the remarkable fact that under the present road law nearly, if not quite, all the desirable reforms in road management were possible; that the size of the districts and elections were within the powers of the county supervisors, etc.

The Australian ballot-law was favored by all present, with such amendments as experience in other States dictated. GEO. OHLEYER SR.

[Further items of the proceedings will appear in our Grange Edition.—EDS.]

## Installation at Stockton.

Stockton Grange, No. 70, installed its newly elected officers on Saturday, Jan. 31. P. M., Thomas G. Ketoham officiated, assisted by Mrs. M. F. Merrill.

Precious to the installation ceremonies, a bountiful lunch was enjoyed by all, and everything passed off satisfactorily.

## Elk Grove Grange.

EDITORS PRESS:—Elk Grove Grange, No. 86, will have a meeting and installation of officers Jan. 17. Bro. E. W. Davis, W. M. S. G., is expected to be present.

Bro. H. E. Hayes, W. M. S. G. of Oregon, is most respectfully invited to be with us on that occasion, also all Grangers who can come.  
A PATRON.

A WORTHY SELECTION.—We are pleased to note that our esteemed contributor, C. E. Mack Jr. (Edwin Thistle), has been elected Worthy Secretary of Sacramento Grange. The honors of the office could hardly fall upon a more able representative. We trust Bro. Mack will not allow the duties of his position to interfere with his continued enrichment of our columns by his facile pen.

SPECULATION IN FUTURES.—Salinas Grange, No. 24, P. of H., at its last regular meeting, Saturday, Dec. 27th, adopted the Watsonville Grange resolutions petitioning the State Legislature to pass an Act forbidding speculation in futures on the products of the farm.



# FARMERS' ALLIANCE.

SUBSCRIBERS wishing fuller information of the Alliance can have their names changed to the Grange Edition of the RURAL PRESS free, much to their advantage, this department being continued in the same.

## The Postal Telegraph.

### Some Plain Reasons Why the Government Should Adopt It.

Telegraph service—what is it? It is a quick transmission of the mails—a sort of rapid delivery—bearing the same relation to the mail service as the multiplication table does to that of addition. Both accomplish the same results only in a different manner and speed. Time, in many cases, is money, and the saving of time between the two services, postal and telegraphic, means the saving of many thousands of dollars to the people.

The Constitution of the United States says that Congress shall have the power to establish a postal service, mail routes and the rates of postage. This has been done since the foundation of our Government, and there can be no question that Congress has the same right to extend the present postal service until it embraces all the known methods of transmitting news, etc. There can be no more just right for the telegraph to be controlled by private corporations than that the Government should turn over the present limited mail service to a private monopoly. Limited, for the reason that the people, who, under our system of government, are the Government, are entitled to every advantage that the laws—among which are the patent laws—make possible. We would be surprised if a railway should refuse to employ inventions that would cheapen the cost of carrying passengers or freight either by shortening of the time taken to transmit such freight or passengers, or by acquiring new appliances that would render the cost of service less. Why, then, should we hesitate to do the same thing for ourselves in the carrying of our mail system? There are few, when confronted with the question, but who will acknowledge that the telegraph should be as much a Government charge as the railway mail service. Indeed it would be a very few who would not agree that it is not only right but proper for the Government to utilize the steam horse instead of the slow coach. Why? Because it lessens the time. Why, then, shall we not go farther and take the next step, and utilize that grand force of nature, electricity, as used in the transmission of messages? As Chas. A. Sumner, representative in Congress from this State, said in a speech before a committee of that body:

"First—I lay it down as a proposition that I want to have duly considered by this committee and the country: That the Constitution of the United States, as interpreted by a century of unchallenged legislation, does imperatively require that the Congress of the United States shall establish a postal system.

"Second—I lay it down as a fundamental proposition that a postal telegraph is a part of the postal system of the Government, the postal system of the United States having been established for the purpose of 'transmitting intelligence between the inhabitants of the land.'"

The next question that would naturally strike the reader's mind is, Will it pay? This is a question that always bobs up at every proposition which is brought forward and is both right and proper, as the great mass of the people have no more money than they know what to do with. The cost of the great Western Union Company is said to be \$125,000,000, that of the Postal Telegraph and Cable Company, \$50,000,000—making a total of \$175,000,000. Now is that the true cost? It is held by a number of prominent electricians that both systems could be duplicated for \$38,850,000. The average message now costs 32.5 cents, allowing the companies to pay a dividend on a stock of nearly \$200,000,000 of about 12 per cent per annum, on a plant that can be duplicated for one-fifth of that amount. Allowing that the other expenses would be equal to what they are at present, to make the same dividend on the actual cost of the plants, the cost of messages would be reduced from 32.5 cents to 8.5 cents. Does any one doubt that at that reduction the wires would be idle, or that the business would be enormously increased, giving more profit and allowing more people to reap the benefit of the improved service?

In addition to this, a greater benefit would be given to the people in the nature of impartial press reports. As it is well known, the great mass of the people depend on the daily press for their news, and how much better for them would it be for them to receive their news from the servants of the people than through the tools of a gigantic monopoly. Would not it be more reliable, more trustworthy? As far back as 1846, Postmaster-General Johnson, in his report to the President (Polk), said:

"It becomes a question of great importance how far the Government will allow individuals to divide with it the business of transmitting intelligence—an important duty confided to it by the Constitution. In the hands of individuals or associations the telegraph may become the most potent instrument the world ever knew to effect sudden and large speculations; what a mantle of prophecy was on the old

Postmaster-General!] to rob the many of their advantages and concentrate them on the few. If permitted by the Government to be thus held, the public can have no security that it will not be wielded for their injury rather than their benefit. \* \* \* The use of an instrument so powerful for good or evil cannot with safety to the people be left in the hands of private individuals."

Would not we object most seriously if the Government should try to turn over the mail service to the Wells-Fargo Express Co.? Yet why would it be any more absurd than to allow private corporations to handle exclusively that branch of the postal system, the telegraph?

## Farmers' Mutual Insurance Co.

At a meeting of the Garden Grove Club, held on Dec. 22d, the question of Farmers' Mutual Fire Insurance Companies was discussed by the different members present. The subject was ably presented by Mr. Beckett and Dr. Head. Mr. White related that while living in the East he had been a member of a Mutual Fire Insurance Company for nine years, and the total cost for \$1000 insurance had amounted to \$5.

The following we clip from the Blade concerning the discussion:

"Dr. Head gave an eloquent talk on the subject, during which he stated that the insurance business on this coast was controlled by a trust, and that so far as the Legislature is concerned, he thought they were owned by the trust, so that it would be useless to ask help from that quarter. He did not know what they could do. A voice from the audience replied: 'Go into the Alliance.' 'Yes, that is it. No honest man can repudiate such a just platform as the Alliance is working under.' He told us also that if our representative, Mr. Smith, were to offer a bill to help the farmer it would never get beyond a first reading, and would then be buried in the committee-room and never have a second reading."

"The fact was noticed that insurance rates were as high here as in the East, while we have no lightning here—a frequent cause for fire. Some of the companies, it was claimed, paid dividends as high as 35 per cent, showing the profitability of the business."

"We also have no long, cold winter nights to keep warm by hot coal fires to increase the risk."

"The general sentiment was that the farmers were letting moneyed trusts and monopolies weld a chain around their wrists that, in time, could not be broken, and in the Farmers' Alliance seemed to be the only hope they had to rescue themselves by co-operation. 'In union is strength.'"

The next meeting of the club will be on Jan. 3 1891.

## Santa Cruz and Santa Clara Counties.

### From an Active and Successful Lady Organizer.

EDITORS PRESS:—Since writing you November 13th, I have organized 11 sub-Alliances and the

County Alliance in Santa Cruz County; Also organized one sub-Alliance, besides speaking for five sub-Alliances in Santa Clara County, and attending the County Alliance of Santa Clara; also the sessions of the State Alliance—even visiting and speaking for four of the new Alliances in Santa Cruz county. You will see that there have not been many hours to spare for correspondence. \* \* \*

I hope the PRESS does not indorse the communication of J. V. Webster in your issue of November 29th, wherein he extols the merits of Mr. Wanamaker's postal-telegraph scheme. It seems strange that a gentleman of his seeming clear-sightedness does not see that government control without government ownership will simply mean to subsidize the already bloated corporations. The idea of our Government paying a rental upon a valuation of 80 millions of dollars for existing lines which could be replaced by government construction for from 20 to 25 millions is something which I hope every farmer and right thinking person in our land will protest against.

I think time will prove the Wanamaker scheme to be thoroughly in the interests of the money power, and that it is an attempt to longer perpetuate the power which they are fearful will slip from their grasp; and if they can blind the people, they may well laugh in their sleeves at the docility of the farmer. I hope the Grange as a body will protest against such a measure, either that compromise or any half-way measures with the railroads. I would like much to hear your opinion.

Senator Chas. A. Sumner's bill for postal telegraph is the only system that has been proposed in the interest of the people, and the monopolists put that out of sight as they would this (Wanamaker's) if it were not in their favor. San Jose, Dec. 20th. KATE L. SQUIRE.

[Our Grange department this week, showing the conditions only on which J. V. W. advocate the Wanamaker plan, will throw some light on this subject, while we call on the old veteran to give the wide-awake Lady Organizer the why and wherefore of his faith. Mrs. Squire is a most active and successful organizer. She will accept our sincere thanks for the above. Many of our readers will be pleased to hear from her often.—Eds.]

## A Sentiment.

In the war which has been declared by us against sectionalism, the farmer and his fireside is the citadel around which the heaviest battles are to be fought. We are not content in simply shaking hands across the bloody chasm. Our work is to fill up and efface the chasm. We are many as the waves, but one as the sea. Sectionalism must not, shall not, live. Upon our banner, written above and below the plow, the sheaf and the cotton bale, is a new device, born of a new era: It is "Fraternity and Unity." From the petition to Congress adopted by the National Farmers' Alliance at Ocala, Florida

## Meeting of the Executive Committee.

EDITORS PRESS:—The Executive Committee of the California State Farmers' Alliance and Industrial Union will meet in San Francisco, Monday, Jan 12th, at 10 o'clock A. M., at 220 Sutter street, Room 18.

JESSE POUNDSTONE, Sec'y Ex. Com.  
Grimes, Colusa Co., Jan 6.

## FRUIT MARKETING.

### Action by Santa Clara Fruit Driers' Association.

As reported in the Mercury, a meeting of the Santa Clara County Fruit Driers' Association was held in San Jose Jan. 3, N. J. Haines presiding and W. F. Parker acting as Secretary.

The President called for the report of the Transportation Committee, explaining that one of the points urged when a meeting of the association was called, was that all of the members had been informed that now was the time to take action in regard to securing a reduction in freights. It had been said that now was the time to present such a petition before the Transcontinental Association had concluded its meeting.

Mr. Gordon said this committee had held no meeting.

George Fleming thought that whether or not the committee had a report, this was an important point. He said now was the time to commence working in this direction, and in all probability the rate could be reduced to \$1.20 or even less. He said the association must be able to show that a reduction in freights was necessary to the prosperity of the business; the company would then accede to the request. When it could be shown that the business would suffer unless reduction in freights was given, the company would then come to terms.

J. H. Flickinger thought it would be a waste of work and talk to commence the work now, as an advance taking effect January 1st had already gone into effect.

James E. Gordon said all the efforts of the association should be concentrated upon the Southern Pacific and Santa Fe roads, as all the other roads had signified willingness to make a reduction.

Mr. Flickinger suggested that the Secretary communicate with similar associations throughout the State, with the green and dried fruit and the raisin men. These combining, it was certain the request would be considered and in all probability be granted. He made a motion to this effect, but Mr. Fleming objected to combining with the green-fruit men, as they already had as low a rate as it would be possible to get, and to ask a lower rate for them would be to injure the cause of the dried-fruit men.

Others gave their views, all favoring the idea, and the motion was passed, after agreeing to drop the green-fruit men and include only the growers and dealers in dried fruits. The Secretary was instructed to do this work under the direction of the Transportation Committee.

James E. Gordon spoke of the fact that much inferior fruit was packed and sold in the East as California prunes.

George A. Fleming spoke of instances in the East where egg plums and Victoria plums were sold as silver prunes. He knew of no way in which this could be stopped.

W. F. Parker was appointed to fill the vacancy on the Conference Committee caused by the resignation of Frank Buxton.

Mr. Fleming stated an organization was on foot which would probably be called the Fruit-Buyers' Association, the object being to establish uniformity in the grades of fruit. He said the association would meet to-morrow afternoon at 1:30 to perfect organization, and all the fruit driers were invited to be present.

S. P. Sanders presented his resignation, which was laid over for action until the next meeting.

Dues for the months during which the association had not met were remitted.

Under the head of new business Mr. Fleming suggested that as there was considerable money in the treasury, it would be a good thing for the association to have an entertainment and banquet. His motion that a committee of five be appointed to arrange for this was carried, and Messrs. G. A. Fleming, W. F. Parker, James E. Gordon, W. D. Morrison and J. H. Flickinger were appointed.

Adjourned to meet the first Saturday in March.

## The California Legislature of 1891.

### Senate.

Dist.	Name and Party.	County.
1	F. McGowan, R.	Humboldt and Del Norte
2	R. H. Campbell, R.	Trinity Siskiyou and Shasta
3	M. H. Mead, D.	Modoc, Lassen, Plumas and Sierra.
4	C. L. Pond, R.	died Nov. 29, 1890. Butte
5	E. M. Preston, R.	Nevada
6	J. H. Sewell, D.	Mendocino and Lake
7	Thos. Fraser, R.	Placer and El Dorado
8	H. C. Wilson, D.	Tehama and Colusa
9	F. S. Sprague, R.	Yolo and Napa
10	J. W. Ragsdale, R.	Sonoma
11	G. J. Campbell, R.	Solano
12	D. A. Ostrom, D.	Yuba and Sutter
13	F. R. Dray, R.	Sacramento
14	E. C. Voorhies, R.	Amador and Calaveras
15	F. C. De Long, R.	Marin and Contra Costa
16	Eli S. Dennison, R.	Alameda
17	W. E. Dargie, R.	Alameda
18	William Simpson, R.	Alameda
19	J. W. Welch, D.	San Francisco
20	George H. Williams, R.	San Francisco
21	W. O. Banks, R.	San Francisco
22	Daniel H. Everett, R.	San Francisco
23	W. H. Williams, D.	San Francisco
24	J. H. Mahoney, R.	San Francisco
25	James E. Britt, D.	San Francisco
26	John T. Broderick, R.	San Francisco
27	John E. Hamill, D.	San Francisco
28	Thos. C. Mahler, R.	San Francisco
29	B. F. Langford, D.	San Joaquin
30	T. D. Harp, D.	Merced, Stanislaus, Tuolumne
31	A. W. Crandall, R.	Santa Clara
32	W. C. Bailey, R.	Santa Clara
33	J. D. Byrnes, R.	San Mateo, Santa Cruz
34	G. G. Goucher, D.	Mariposa, Alpine, Mono, Fresno.
35	Thomas Flint, Jr., R.	Monterey, San Benito
36	G. S. Berry, D.	Inyo, Tulare, Kern
37	E. H. Heacock, R.	Santa Barbara, San Luis Obispo, Ventura.
38	R. B. Carpenter, R.	Los Angeles, Orange
39	J. F. McComas, R.	Los Angeles
40	H. M. Streeter, R.	San Diego, San Bernardino

### Assembly.

1	George B. Robertson, D.	Del Norte, Siskiyou
2	A. J. Bledsoe, R.	Humboldt
3	E. D. Kellogg, A.	Humboldt
4	T. W. H. Shannahan, D.	Trinity, Shasta
5	J. T. Jones, R.	Modoc, Lassen
6	F. G. Hall, R.	Plumas, Sierra
7	James T. Motlock, R.	Tehama
8	F. H. Barnard, R.	Butte
9	J. Smith, R.	Butte
10	H. P. Eakle, D.	Colusa
11	George Sturtivant, R.	Mendocino
12	James H. Renfro, D.	Lake
13	H. P. Stabler, D.	Sutter, Yuba
14	Michael Garver, D.	Nevada
15	Thos. Hocking, R.	Nevada
16	Dr. Noble Martin, R.	Placer
17	W. E. Baughman, R.	El Dorado
18	Jud. C. Brusie, R.	Sacramento
19	Elwood Bruner, R.	Sacramento
20	Gillis Doty, D.	Sacramento
21	Reese Clark, R.	Yolo
22	Frank L. Coombs, R.	Napa
23	Frank J. Murphy, R.	Sonoma
24	J. D. Barnett, R.	Sonoma
25	H. L. Weston, R.	Sonoma
26	Charles Duvner, R.	Solano
27	J. C. Wolfskill, D.	Marin, Solano
28	Thomas H. Estey, R.	Marin
29	James H. Daly, R.	San Francisco
30	Thomas J. Tully, R.	San Francisco
31	John Hays, R.	San Francisco
32	George E. Lewis, R.	San Francisco
33	F. L. Jones, R.	San Francisco
34	A. L. Lux, R.	San Francisco
35	William J. Dunn, D.	San Francisco
36	John P. Glynn, R.	San Francisco
37	M. W. Coffee, R.	San Francisco
38	A. T. Barnett, R.	San Francisco
39	Charles S. Arms, D.	San Francisco
40	Thomas W. Dennis, R.	San Francisco
41	H. C. Dibble, R.	San Francisco
42	Louis A. Phillips, R.	San Francisco
43	William C. Tennis, R.	San Francisco
44	George A. Wentworth, R.	San Francisco
45	Eugene F. Bert, R.	San Francisco
46	Lawrence Hoey, R.	San Francisco
47	John T. Steltz, R.	San Francisco
48	J. Windrow, R.	San Francisco
49	Alexander Gordon, R.	San Mateo
50	W. H. Galbraith, R.	Santa Cruz
51	Frank L. Fowler, R.	Alameda
52	Fred Bryant, R.	Alameda
53	J. G. McCall, R.	Alameda
54	E. S. Culver, R.	Alameda
55	E. G. Cram, R.	Alameda
56	A. Ames, R.	Alameda
57	G. E. Carter, R.	Contra Costa
58	R. S. Johnson, R.	San Joaquin
59	J. L. Beecher, Jr., R.	San Joaquin
60	E. A. Freeman, R.	Amador
61	Alex. Brown, R.	Calaveras
62	Frank T. Murray, D.	Tuolumne
63	E. E. Dow, R.	Santa Clara
64	J. R. Low, R.	Santa Clara
65	George E. Hersey, R.	Santa Clara
66	J. S. Alexander, R.	Stanislaus
67	T. H. Gould, D.	Merced and Mariposa
68	C. G. Cargill, R.	San Benito
69	C. F. Lacey, R.	Monterey
70	B. R. Woodworth, R.	Fresno
71	W. S. Cunningham, D.	Tulare
72	F. E. Hunewill, R.	Alpine, Mono and Inyo
73	Marcus Harloe, R.	San Luis Obispo
74	W. A. Hawley, R.	Santa Barbara
75	T. H. Rice, D.	Kern and Ventura
76	F. N. Marion, R.	Los Angeles
77	J. R. Matthews, D.	Los Angeles
78	Guy A. Smith, R.	Los Angeles and Orange
79	John C. Lynch, R.	San Bernardino
80	N. A. Young, R.	San Diego

### Senate.

Republicans, 27; Democrats, 12; vacant, 1.

### Assembly.

Republicans, 63; Democrats, 16; American, 1.

### Totals.

Republicans, 90; Democrats, 28; American, 1; vacant, on account of death, 1.





## Lines.

Suggested by reading "California Sunshine," by Mrs. L. H. Shuey.

[Written for the RURAL PRESS by ISABEL DARLING (Lupa).]

A sudden trill of joyous notes  
Across the summer stillness floats;  
A rippling song that warbles, chirps  
And dies away, then gaily darts  
In merry mockery far up  
Where distance fades and sound grows still;  
Then, with a prophecy of ill,  
It circles down to earth again,  
And whispers of the lily's cup,  
Of grass and dew, and mist and rain,  
But never hints of angry pain,  
Of sullen depths and blasting fire,  
The vengeance of untamed desire,  
Of loneliness and tempting wrong,  
Of agonies of sin, despair,  
The longing to be blotted out  
Forever from the page of life.

These lend no quiver to the song,  
Its tones of grief (when grieve they must)  
Are tender, hopeful, breathe of cheer  
And make a rainbow of a tear.  
No giant strength of discord mars  
The clear-voiced flow of restful sound.  
Its power comes of faith and hope—  
'Tis all, and yet it is enough  
To make one dream of harmony,  
Of beauty, peace, of all that's good,  
Of noble life, of truer art,  
Of heavenly "Sunshine" in the heart.

## Doctor Margaret.

When Madge Harrington, the beauty and madcap of the family, announced her determination to study medicine, it created such a commotion among her aunts and cousins that would be too long a story even to try to tell. What protestations there were, what entreaties, what dismal prophecies of failure, or what another outcry there was when, at the end of her course, instead of settling in the city, she chose to accept Uncle Jeremy's offer of a partnership in his large practice and bury herself in the country. Neither need I relate how Ben Harris followed her there for the express purpose of offering certain arguments of a personal nature on the subject, and came away with a decided disinclination to talk of his cousin or her doings. Nor even how he begged her photograph, and like the careless fellow that he was, lost it before he left the little hotel at the Junction. Nor yet how his friend and law partner, Robert Cortright, only a few weeks after found himself stranded at the same dreary little Junction House, and thought himself a very hardly used young man because he must stay there until morning.

It was a wretched place; he was angry at having missed the train, and altogether in no very enviable frame of mind when he retired to his room and tried to lose himself in the pages of a railway novel. Evidently it was a fruitless effort, for after a half hour he gave the book a toss into the farthest corner of the room, where, as if ashamed of its own dullness, it retired from view behind the washstand. A few turns up and down the room served to convince him that his own thoughts were no better company, and smiling somewhat contemptuously to himself, he gave the rickety stand a push which brought to view not only the book, but—"By Jove, a photograph," he ejaculated. "The last occupant has probably left his sweetheart's picture behind him." He gave a long whistle of astonishment as he held it up to the light; it was no rural Phyllis, but a beautiful girl photographed by Sarony.

Mr. Cortright was something of a physiognomist, so it was with a purely scientific interest that he gave it the benefit of a long and careful scrutiny. Perhaps longer because there was something puzzling about it. A mischievous wrinkle at the corners of the mouth seemed strangely at variance with the great earnest eyes and the firm contour of the chin. There was no clew to its identity except the one word "Margaret" written across the back. Of course he carried it away with him, it would never do to leave it to fall into the hands of the next chance comer, and destroying a face like that was not to be thought of, it would be vandalism, so it was finally deposited in a secret drawer of his own private desk.

He had engaged in numerous flirtations without any serious consequences, to himself at least, and now at the great age of thirty-two he prided himself upon being quite removed from all sentimental considerations. It was a task of no small difficulty to reconcile this idea with the fact that an unknown face had for him a fascination he had never felt before; indeed it was so difficult that he gave a great deal of thought to it. Certainly there was no one else to sit in judgment on the matter, for he never thought of showing his treasure trove to Ben Harris, who shared his office, his private sitting-room at the Windsor, and, up to this time, all his secrets. If he had done so, it is hard to tell who would have been most astonished; but all the more surely for this reserve,

there grew up in his mind an ideal woman, as visionary and impractical as most such creatures are, but which he worshiped as ardently, and apparently as hopelessly, as the old sculptor his marble woman—one was stone and the other air; he sometimes said to himself that this was the only difference.

Still he did not grow thin and melancholy after the orthodox manner, and when in the summer Ben proposed a bicycling tour which should have for its objective point the Harris country house, he made his preparations with the feeling that after a winter of good hard work he had fairly earned his holiday. The family were hospitable in the good, old-fashioned way, and they came and went as they pleased, sometimes alone, sometimes with Ben's sister Carrie, a gay little witch with a face he would never have thought of calling pretty had it not been for a certain mocking, elusive resemblance to the picture safely locked away at home. But the most adroit questioning failed to elicit any information, and Miss Harris grew a little impatient. "People seem always hunting for resemblances," she cried; "they even say I am like Madge Harrington, I am so little and dark."

"What is she like?" he said curiously.

"Like? I can't describe her, but you will have a chance to see for yourself. She is coming here, if measles and whooping-cough permit."

"Measles and whooping-cough!" repeated he, greatly mystified.

"Why, she is a doctor, you know."

"No, I don't know, and I devoutly hope she won't come; there is one of the species at home, the homeliest and most cold-blooded woman I ever knew; looks upon her patients simply as 'cases'—the scientific temperament her friends call it. I call it simply abominable."

"Madge isn't that sort at all, cried Carrie, angrily; "she is young and pretty."

"So much the worse, then," he interrupted.

"I think all such women ought to be left on a desert island, to prey on each other, instead of on society."

"I more than ever hope she will come. I'd like to see you fall a victim," was the retort.

He would hardly have been so rude had he not fancied for a moment that he was on the verge of a discovery, and that the clew should lead to this made him unusually wrathful toward the whole medical profession. Measles prevailed against Carrie's wish, and he finished his visit in peace, which was marred by only one deep bite, Ben declaring that he had enough of "cycling," and Mr. Cortright that he would carry out his original plan.

"I'll go home on the oars, like a Christian, and be there, ready to receive you, when you come, if you ever do. There's some awful roads about Randolph," Ben added.

"Madge can mend his bones, if he breaks them," said Carrie, mischievously; "she lives at Randolph."

He adhered to his original intention, in spite of all Ben's argument, and quite pitied Ben until the afternoon of the second day, when he came to some of the prophesied "awful roads." It tried nerves, sinew and temper; and, as the Fall, in which, we are informed by the unquestioned authority of the New England Primer, we "sinned all," was occasioned by a woman, so it was with Mr. Cortright's fall.

He was struggling over a particularly rough bit toward a point where three roads met at acute angles, all equally bad and all apparently leading to nowhere in particular. He would have dismounted and taken the next few rods on foot, had he not discovered a stylish little wagon, drawn by a black pony, rapidly approaching the point of intersection. One glance enabled him to take in the whole establishment, even to the bunches of golden-rod on either side of the pony's head, strongly suggesting blinders, and to decide that the driver must be a young lady, though he could not see her face distinctly. She wore a white tailor-made gown, and a broad-brimmed hat with a white plume, and he classified her at once as a summer boarder. Should he meet her on foot, ingloriously dragging his "machine" after him? Perish the thought. He would pass that corner in a manner befitting the captain of the Wheel Club, even if he risked his neck in the attempt. But, alas, pride must have a fall, and the wheel striking a particularly tough root, he took a header on a pile of stones by the roadside.

Things seemed very strange and indistinct that night. He was floating around in space, and the Margaret of his dream was near him. Sometimes she held his hand for a moment and spoke to him in a low, clear voice; but he could not answer her. Then she disappeared, and he slowly came back to earth again, and found himself in a large, cool room, with a motherly-looking old lady sitting beside him. The faint, subtle odor of ether lingered in the air, and a dull pain in his head reminded him of his fall. The old lady leaned forward eagerly when he began to speak.

"Will you please tell me just what has happened?"

"Why yes; your leg's broke just below the knee—compound fracture, the doctor called it—and there's some bad cuts on your head; and you must keep quiet, and the doctor'll be here again at 10 o'clock," she said.

I regret to say that Mr. Cortright made use of a naughty word. "You don't mean to say that you sent for that young woman to reduce a compound fracture?"

"Now see here," said the old lady, energetically, "you haven't got any oall to worry.

There wasn't no one else to do it, for the old doctor is away out West for his health, and there ain't no one for thirty miles around can equal her on a bone. I called it real providential that she was drivin' along just as you fell off your velocipede."

He subsided into silence and angry reflection. He would be likely to make the rest of the journey in very different fashion from the beginning, and it was worse than all to have fallen into the hands of that horrible young woman. He would send for Ben and Dr. Cummings at once; no, he would not. Ben should not have the chance to triumph over him in that fashion.

Just then there was a rattle of wheels in the front yard, and he looked up in bewilderment, as the young lady who had been the unwitting cause of his downfall entered. "You are not the doctor?" he said, slowly.

"I certainly am," was the prompt reply.

"I told you all about it, don't you remember?" said Mrs. Brown, but he was absolutely speechless with astonishment. She had removed her hat, and it certainly was the face of the picture. There was the same earnest eyes, the mischievous wrinkle about the corners of the mouth. He pinched himself to be sure he was not dreaming, and answered her questions so incoherently that Mrs. Brown suggested that his head was not yet quite right.

It was not imagination, then, when last night he thought Margaret was with him and took his hand, but hard professional reality. He would not telegraph Dr. Cummings that day, but wait until he became a little used to the novelty of the situation. Mrs. Brown found her patient anything but tractable that day, but attributed it to the natural perversity of unrenowned male nature. It was a grievous disappointment to have all his illusions destroyed in this fashion; of course she could not be a doctor and still be the Margaret of his dreams. He was a fool, an unmitigated fool, to build up a woman just from a face, and then fall in love with his own creation. He would telegraph to Dr. Cummings that very night just to make sure everything was all right, and then let her cure him of his injuries and his folly at the same time. This decision did not bring much comfort with it, for he found that he did not want to give up his folly after all, and so fought the same battle over and over again. He was cross and almost rude to her, but she never lost patience, and when he came to repentance and a better mind, received his apologies with a quiet dignity that made him more uncomfortable than before. But the climax came on the day when Ben Harris brought his crutches from the city and he was allowed to hobble out on the wide porch.

"What do you think now about leaving all the women doctors on a desert island to prey on each other instead of on society?" Ben demanded.

Mr. Cortright looked painfully, undeniably guilty.

"Oh, you needn't be so agonizingly penitent," continued his tormentor remorsefully. "Madge don't care, she has no personal human interest in you—regards you simply as a case, you know."

"Indeed, I have a very decided human interest in any one who is so misguided," she said kindly, for she pitied his evident embarrassment. "He must be converted."

"I'm converted already, but you need not withdraw your human interest on that account. I have been such a troublesome case, let me try to redeem myself as an individual."

"If you think you can do any better in that capacity, I would be tempted to try you," she answered, laughing.

"I'll hold you to that bargain," was the quick reply, but after Ben left he did not always find it an easy matter. When he begged to drive with her, she indulged him, at first, as she might a whimsical boy, leaving him to hold the horse before lonely farm-houses while she made her visits. He used to look at her curiously; she seemed to him some champion fighting the battles of the weak against the cruel monsters, disease and death, and he learned to know by her face whether she or the dragons were being worsted in the fight.

Still their acquaintance progressed rapidly, for he had the rare tact which taught him to divine her moods as if by instinct, so that, almost incessantly at first, she found herself leaving many of her anxieties in the darkened room she visited instead of carrying them with her, an ever-increasing load, to the end of the day. He never reminded her of her promise to regard him as an individual, instead of "Cortright, C., compound fracture, serious contusions about the head," but flattered himself that she was fast laying aside the professional manner, and even growing to depend on his companionship and sympathy. Neither did he ask himself what he expected would result from it, a rising young lawyer, who had even distant views of the ermine, could hardly be expected to devote his life to driving about the country with a doctor, holding a very sedate black pony before the doors of high and low, even if the doctor was a young and handsome woman. He knew it could not last forever, and when the end came, told himself bitterly that he might have expected it from the beginning; for he had staked everything on one throw and lost.

Though Dr. Harrington missed her patient more than she would admit even to herself, she thought she did not regret her decision. Indeed there was very little time for regret, for there was an unusual amount of sickness

that winter, and kind old Uncle Jeremy, who, no doubt, would have mended Mr. Cortright's bones had he not been away in quest of health, died suddenly on the homeward stage of the journey. She took long drives, often extending far into the night, and almost as often reached home only to find an imperative summons in another direction. The month of December was intensely cold, and on Christmas eve the wind swept through the valley, carrying the snow in blinding whirls that piled high above the fences, and the black pony fought his way along almost inch by inch. There was a bright fire in the grate and she sat down and spread her chilled fingers to the blaze. It seemed to her that she had never been so tired; she dreaded the morrow and the next. Would there be a hundred morrows like it? Could she endure them if there were? She could bear the cold and the fatigue, for often she was too tired to eat, but the thought that to so many people she seemed to hold life and death in her hands was terrible. With a sudden, swift impulse, she crossed the room and took up a little hand-glass. Her own photograph stood on the mantel; Uncle Jeremy had placed it there, and she had never disturbed any of his belongings. She looked from that to the face in the glass. There were dark rings under the eyes; it was pale, faded and anxious. The lamplight fell full upon her bent head and revealed a single, shining white hair, the first she had ever found. She pulled at it spitefully with a queer sinking of the heart. "Am I growing gray at twenty-five?" she said piteously. Her youth seemed suddenly to have fled, and she saw only a ghost, and stretching away before her a solitary old age.

Just then some one stumbled up the steps, and there was a sharp ring at the bell. Most women hesitate before answering a late ring, but she only shivered as she thought, "Must I go out again to-night?" A tall man stood in the little porch with his coat-collar turned up over the lower part of his face, and a sealskin cap drawn down over his eyes, so that nothing was visible but a very frosty mustache. "May I come in and wish you a Merry Christmas?" said a clear, ringing voice. The tell-tale blood rushed into her face, and there was a suspicious quiver in her voice as she answered him.

"I didn't frighten you?" he added. "I should not have dared to stop to-night only for the light."

"No, I was not frightened, only I am rather nervous, I think, and your coming was so sudden and unexpected."

Her evident perturbation gave him courage; she could not be entirely indifferent, if seeing him had power to disturb her so much.

"You never used to be nervous, and how thin and pale you look; you must be ill."

"Oh, no," she said, struggling vainly to regain her composure, "I am only tired out; there is a great deal of sickness, and I am busy night and day."

"You are killing yourself," he replied. "How many miles have you driven to-day?"

"Thirty, perhaps."

"And you will do the same to-morrow, and to-morrow," unconsciously repeating her own thoughts. "You shall not; I have tried to forget you as you said, and I cannot. I will not try any longer."

Next day a friend of Mr. Cortright, who was starving in the city, while he waited for patients, received a telegram summoning him to go to Randolph to take charge of a large country practice. A few weeks later in the season, when there was an accident at one of the quieter winter resorts on the Carolina coast, and no surgeon at hand, the local paragrapher related that "A very charming lady from the North, evidently a bride, improvised a apint, and set the broken bone as calmly as though it was an every-day occurrence."—*Godley's Lady's Book.*

## After Christmas.

[Written for the RURAL PRESS by MAUDE S. FRASER.]

At last the hurry, the excitement, the bustle of preparation are over! Christmas, with all its joys, is a thing of the past.

There were some of us, perchance, who failed to finish our presents in time; many, I am sure, who put the last touches on Christmas gifts late Christmas Eve. Does one ever begin in time?

Have any of the readers of the RURAL PRESS, warned by this season's haste and anxiety, resolved to begin a Christmas box at once?

This practice, advocated in so many of our household papers, has its good points and its weak ones. Let us try to use the idea only so far as is practicable to each one of us.

Without doubt many enjoyed, as did I, the privilege of seeing dainty presents made by the ingenious hand of one friend for another. We might have made the same things had we known how or thought of them.

Right here, then, I'll begin my Christmas box. Fearing that my memory will play me false at the right moment, I keep a small blank-book where I jot down ideas for fancy-work, suggestive couplets for decorative purposes, and sometimes the quantity of material required for an especially admired article.

This little book I would keep among my materials for fancy-work, if I were you. Experience has taught me that such things are best kept together.

Then, as the months go by, I would suggest adding to this stock of zephyrs, silks, satins and velvets such odd pieces or quantities as may often be picked up at bargain counters or on great sale days. At the same time, I should



not buy without some definite purpose in view. This may be done whenever an opportunity presents itself, provided it is possible to keep an emergency fund to be used in such and other ways.

I have one friend who set aside for three months the eggs she got from her hens as her holiday capital. Another began in June to drop into a good-sized china egg with a slit in the top every small bit of money she felt she could spare. Sometimes she walked home from town instead of taking the street-car, and as soon as she reached home, she dropped in the nickel. Sometimes (they took their meals out "at her house" that summer) she bought a simple and frugal lunch, and put the extra pennies in her bank, as the family soon grew to call it. Whenever she denied herself any particular pleasure, a new ribbon, a ticket to the theater, candy or novels, for instance, the price was carefully laid away. She couldn't touch the money without breaking the egg, so her savings were safer than in her purse and served her well at Christmas.

Now, it seems to me, money is always "tight" and hard to get at just about Christmas-time. Winter clothing, wood and provisions must be laid in, and then come the taxes. They must always be paid, and how often it happens that the very money you have depended on is not forthcoming.

Jones can't pay your husband that little bill he owes him. Smith has had so much sickness in his family he must ask you to wait till spring. Somebody else evidently never intended to pay, for he has left the country without mentioning his bill; and so, at the very time you wanted to do Christmas shopping, Harry will tell you how hard it will be to pay the taxes and he is so sorry, but he can't let you have any Christmas money this year.

Then, if you have been a wise little woman, you will think cheerfully of the material you bought and stored away last summer, and turn a smiling, cheerful face up to Harry as you assure him you can manage to make a very little go a long way.

When you will give you an affectionate kiss and an appreciative look as he tells you that no one in the world is so—

There, you know as well as I do what he will say, and you know, too, that it sounds much sweeter from his lips than it would look on paper!

"Yes," you say to yourself, as you hurry through the evening work so you can get out that wonderful box of many-colored silks and various odds and ends, "yes, I can make a little money go a long way, but what would I do if I hadn't my box to help me out?"

Don't say it amounts to the same in the long run—the money has to come out of the purse anyway, so it may as well be one time as another.

You know, and I know, that there are times when we can more easily spare money than others; and past experience has taught me to buy all material possible, even all Christmas toys, if I can, before the month of November has ended at the very latest. Should it be a "fat" Christmas, and money more plenty than usual, then something may be done for the poor and needy whom we have "always with us."

In any event, our nearest and dearest have been provided for by timely care.

I would advise this early preparation in any case, so that time, strength and money may be given to making some outside heart happy on that day—that is really what we are apt to neglect on Christmas Day, and it is in all respects nearer the true spirit of the season than all the rest.

Now, however, it is past and we are free to pick up the raveled threads, the ragged edges left by the inevitable rush of the weeks preceding the holidays.

One friend said to me the other day, "I'm going to begin the day after Christmas and put my clothes in nice order. There are six buttons off my best shoes and all my stockings need mending."

I laughed at her then, but I have since had to do the same myself, or rather am doing it.

I hadn't a moment to spare for days before Christmas, and it really seems good to get my various belongings in nice order again.

There is apt to come a time of inaction after such a strain as the holidays bring. This is well enough if not prolonged or indulged in until life seems dreary and monotonous for want of motive.

Spring sewing always comes upon us too soon. Why not begin sooner? Surely underclothing may be made up in January and prettily trimmed with knit or crocheted edgings.

I know our pocket-books are apt to be empty after the late drain upon them, but trimmings may at least be made, and what material is on hand may be used.

Often half-made garments are on hand. Finish them up one by one, and by the time you are ready for new material you can surely get a dollar's worth of muslin to begin work on your new underclothing.

You can work on your crazy patchwork, too, and your slumber-robe that you put aside in November for lack of time.

That same lack of time was your reason for dropping your practice on the piano and your daily reading. Begin these again at once, and let the busy evenness of your life make up a harmonious whole. Make up your mind what you will read and what you will accomplish during the next few months, and try to have the stormy days that we will soon have full of beauty of purpose and strength of life.

## YOUNG FOLKS' COLUMN.

### A Suggestion.

[Written for the RURAL PRESS by DOROTHY SHIRLEY.]

I am wondering how many have made New Year's resolves, and how many will break them. It is the most natural thing in the world to have the desire, indeed, to make the attempt to start in afresh with the dawn of a new epoch, however long or short.

The greatest trouble with New Year's resolves is that we are likely to make too many of them. In the endeavor to suddenly reconstruct our characters, we undertake too much. It calls for too much self-denial—too much effort.

First one good resolve is broken, then another, and finally the whole list is swept away in an overwhelming tide of disgust for the weakness that each year leads us to make New Year's resolves only to break them.

Much courage and self-respect is in this way lost, and it may, I think, be avoided, and still we may make, say, and keep good resolves.

Hence—a suggestion!

Sit down quietly and carefully consider your faults. Pshaw! You are brave enough for that. Have you twelve? Have you more? As it may be, consider them carefully and write out a list of twelve. Be sure to give a prominent place to your besetting sin, or, if you choose, have twelve without it, and take that one every month in addition to the one set aside for that month.

Give plenty of time, thought and care to your list; put it carefully away in some safe hiding-place; say nothing of your good resolves; let the result tell the story, and go to work hard on the fault laid down for the first month.

Each month try to carry along with you what you have gained on that part of the list already checked off. You surely will gain strength and self-respect, if your efforts are faithful. At the same time each month, pay special attention to the fault for that month.

I cannot conceive any way in which you can grow mentally and morally, more rapidly, than by conquering some one fault each month. A month of faithful, persistent effort, hammering away on some one fault, will make it very easy, methinks, to keep that fault in hand the rest of the year, and leave plenty of strength to "tackle" the new work each month.

Think of this and give it a trial.

Shall I further my suggestion by a sample list? Not a model one—for few have the same faults to contend against.

To accompany each month—Control my temper!

January—Keep my room in nice order.

February—Relieve mamma of the care of my clothes.

March—Be faithful in my practice hour.

April—Try to make some one happier every day.

May—Be careful about exaggerating.

June—Be more unselfish.

July—Think less of pretty clothes.

August—Quit using slang.

September—Be more faithful in small duties.

October—Avoid gossip and slander.

November—Read fewer novels.

December—Think of the poor.

An entirely different list may be constructed, filling the needs of the one who undertakes it.

Only be honest in making it—honest in carrying it through the full year.

### Miss Mason's Party.

It was to be a *curio* party. Miss Mason was an original person and aimed to arrange something out of the usual order for her young friends.

In a quiet village on the sea-coast there is not a constant succession of church fairs, concerts, lectures or other mild forms of dissipation to shorten the winter season; but books and papers abound, and every house contains interesting objects from abroad, trophies from foreign voyages.

The invitations read thus: "Miss Mason requests the pleasure of your company on Tuesday evening next. She also desires you to bring some *curio* and prepare a little sketch upon it for the entertainment of others. She would suggest complete secrecy upon the object selected until that evening."

The young people were thrown into considerable excitement on the receipt of the dainty notes. It was easy to connect *curio* with the carious; but did it apply to works of nature as well as art? They consulted dictionaries and discussed, and then each held "his own opinion still."

Robert Sayles wanted to take his baby sister as the greatest *curio* he knew about. Jack Strong, who had seen electric lights in a city, so longed for one of those to carry.

What more attractive to a girl heart than a real secret? A girl possessing this feels as consequential as a politician just elected to office. It shows in her very gait.

Soon all settled down to the work of preparation in earnest. Upon the appointed evening they appeared with mysterious packages, which were given into the care of the hostess.

After an exchange of greetings, Miss Mason carefully opened one box and took out an exquisite piece of Japanese workmanship. It was a Cloisonne vase. This was brought by Rose Lapham, and she was called upon to tell something about it. Then she described how the metal foundation is prepared, the gold

wires put on for the outlines of flower and leaf, the colors added and burned, and the whole ground down and polished to perfection. She suggested that this may well be called a "patience" vase.

The next box contained a bird of paradise, and the owner told about its home and surroundings, and made his hearers admire more than ever its wonderful structure.

Then came a specimen of Chinese carving in ivory, a ball within a ball, each cut in beautiful designs.

Alice Swan brought East Indian embroidery in gold thread upon silken fabrics, and showed how the women sit and ply the needle so skillfully.

Benny Stone brought one pressed flower from the spot nearest the North Pole where there is any vegetation, and told the story of brave explorers who had gone through such hardship to reach that latitude.

One specimen looked like a chip from a wood-pile; but it proved to be a bit of wood found near the bones of a mastodon and buried under twenty feet of solid rock and twenty feet of peat. It was an object rich in suggestions, and carried the company back long centuries.

One brought a bit of amber, with imprisoned insects, and another a quaint figure—half human, half monkey—found buried with the mummies in Egypt.

How the young faces lighted up as different facts were unfolded and their minds stimulated to gain further information! Indeed, next to the exercise of the affections and giving happiness to others, there is probably nothing so pleasurable in life as acquiring [knowledge, learning about the wonders of nature and art.

Miss Mason skillfully inserted question and comment, and made her guests feel how rich their lives might be in great thoughts, whatever their surroundings.

The *curio* party was indeed a success, and the hostess will long be remembered for her kind thoughtfulness.—*M. Louise Robbins, in Christian Register.*

## DOMESTIC ECONOMY.

### Cooking Potatoes.

In an essay before the Garden Grove Farmers' Club, Carrie M. Kimball said:

Among the many and various methods of cooking the potato, I will only attempt to mention a few.

One very nice way, and where one wishes to do so quickly, is to peel, slice and boil in milk, being careful not to let them burn. Adding some water to the milk will prevent this. These, after being salted and peppered to taste, are very good for a change. Old potatoes may be improved by soaking in cold water several hours.

Then we have the potato pie. Grate four large potatoes, scald one quart of milk and pour on the potatoes; when cold, add four eggs well beaten, four ounces of butter, nutmeg, and sweeten to taste.

Potato soup is made by boiling in one quart of water a small slice of pork and two onions; take eight good-sized potatoes, boil and mash fine, add to the pork and onions with one quart of milk, boil one-half hour, season and strain.

I also have a very nice receipt for potato salad. Six cold potatoes, chop fine, one gill vinegar, two teaspoons of mixed mustard, one teaspoon each of pepper, salt and sugar, one large tablespoon of butter, one beet chopped, one hard-boiled egg pounded fine, three sliced and placed on top.

Will give just one more receipt of the many, and one that I have found very nice. Slice cold boiled potatoes very thin, sprinkle a thin layer of cracker crumbs in a baking dish and cover with a thick layer of potatoes, scatter on salt, pepper and bits of butter, repeat the layers until the dish is full, then pour on a cup of rich cream and bake half an hour in a quick oven.

TONGUE TOAST.—Take a cold tongue that has been boiled, mince it fine and mix with cream and beaten yolk of an egg, and simmer on the stove. Having first put off the crust, toast slices of bread and butter them a little, lay in a flat dish and spread over them thickly the tongue while it is hot.

CRULLERS.—One cupful of sugar, a piece of butter the size of an egg rubbed well into the flour, two eggs beaten into the sugar and butter, one cup of milk, three teaspoonfuls of baking powder mixed into a cupful of flour. Add a little salt, unless the butter is very salt. Flavor with  $\frac{1}{2}$  teaspoonfuls of lemon extract. Mix very soft.

RICE BALLS.—Put a half-cup of rice, one pint of milk, cook it in a farina boiler until the rice has absorbed the milk. Add a half-teaspoonful of salt, a dash of pepper, about five drops of onion juice and the yolk of one egg; mix and turn out to cool. When cool, form into balls, dip into egg and then in bread crumbs, and fry in smoking hot fat.

HARD SOAP.—Dissolve one can of potash in a quart of cold water, then stir slowly into it six pounds of melted grease; the cleaner the grease the whiter the soap. Stir a few minutes until it is very thick; pour into a square pan. If you want to cut it in pieces, you must do it as soon as cold, or it will harden so it cannot be cut easily. Mixing oatmeal in this soap makes a good toilet article; it is very good for the hands

## GOOD HEALTH.

### Prevention of Consumption.

The health department of the city of Providence has issued the following circular:

Consumption causes more deaths than any other disease the human race is subject to. Nevertheless it is to a very large extent preventable. It is, though not generally known, a contagious disease. Consumption, or pulmonary tuberculosis, is in every case caused by disease germs which grow in the lungs in enormous numbers. When a person is sick with this disease, these germs are coughed up in great quantities in the expectoration, and when this becomes dry and crumbles, or is trodden to dust, the germs float about in the air and are liable to be breathed into the lungs of any one. If the lungs of the person who does breathe them are poorly developed, or if the constitution is feeble, the germs are very sure to grow and cause the disease. Unfortunately, we do not know how to kill them when they are once in the air-passages. The best that can be done is to build up the system and strengthen the lungs by the use of cod liver oil, good food, and fresh air.

Much, moreover, can be done to prevent the spread of the disease by destroying the germs as completely as possible in every case.

(1) No person with consumption should ever spit on the floor or in the street. If handkerchiefs or bits of cloth are employed, they should at once be disinfected or burned. A good plan is to use a small wide-mouthed bottle with a rubber stopper. The contents should be thrown into the fire and the bottle and stopper thoroughly scalded with boiling hot water every day.

(2) The dishes used by a consumptive should be at once scalded, and the unwashed underwear and bed-clothing should be thoroughly boiled as soon as possible.

(3) When a person with consumption has diarrhea, the discharges from the bowels should be at once disinfected, as at this time they contain the disease germs. A good way is to add a half-teaspoonful of fresh chloride of lime, or fill up the chamber vessel with boiling water.

(4) No one with consumption should sleep in the same room with another person, and the room occupied by a consumptive should be thoroughly cleansed as often as possible.

(5) No mother with consumption should nurse an infant, and children ought never to be taken care of by a consumptive person.—*Boston M. and S. Journal.*

BRAIN WORKERS AND ATHLETICS. — *Life* is puzzled over the careers of the late Cardinal Newman and John Boyle O'Reilly. The former was a frail, slight man of infirm constitution, but despite this he lived to a very advanced age; the latter was a man of splendid physique, who kept his system in training by physical exercise, athletic sports, and followed all the suggestions of modern physical culture. Yet he died in the prime of life. Shall we not, then, live quiet, ascetic lives, ignoring the body and cultivating the spirit? Or shall we cultivate both body and mind? The latter course is the one so much commended to-day; yet it is not a sure passport to longevity, as many cases prove. In fact, the brain-worker is better off if he lives a regular, temperate life, and pays no attention to the development of his muscles. A little walk, some fresh air, and sound sleep are all he needs. Some people, to be sure, can be athletes and do brainwork also, but it is not the rule. A sound mind should have a sound body, but it does not need heroic muscles. The best athletic work is done by growing boys and adolescents, who have an extra supply of vitality. When they have matured, and undertaken the responsible work of life, they speedily drop out of the championship; and the lesson we would draw from the opposite cases brought up by *Life* is that athletics are not needed by brainworkers, and will, if carried to excess, shorten life rather than lengthen it.—*Medical Record.*

TO TELL THE APPROACH OF DEATH.—Dr. Chiappoli states that he has frequently noticed in patients, apparently very far from death, an extraordinary opening of the eyelids, so much so as to give the eyes the appearance of protruding from their orbits, which he considers an invariable sign that death will occur within 24 hours. In some cases, when only one eye is wide open while the other remains normal, death will not follow quite so rapidly, but will take place inside of 72 hours, there not being the slightest chance for recovery after these symptoms set in, however remote final dissolution may seem to be. Chiappoli says he is utterly at a loss for an explanation of this death symptom, but ascribes it to a diseased state of the sympathetic nerve.

NUTRITIVE PROPERTIES OF CREAM. — The fact is not so well known as it deserves to be that cream constitutes an admirable nutriment for invalids. It is superior to butter, containing more volatile oils. Persons predisposed to consumption, aged persons, or those inclined to cold extremities and feeble digestion, are especially benefited by a liberal use of sweet cream. It is far better than cod-liver oil, and besides being excellent for medical properties, it is a highly nutritious food.





A. T. DEWEY.

W. B. EWER.

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Our latest forms go to press Wednesday evening.

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SAN FRANCISCO:

Saturday, January 10, 1891.

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## Business Announcements.

[NEW THIS ISSUE.]

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Palermo—McAfee, Baldwin & Hammond.  
Plows—P. P. Mast & Co.  
Stock—Mecham & Fritsch, Stony Point.  
Bells, Evaporators, Etc.—James Linforth.  
Dogs—M. P. McKoon, El Cajon.  
Roses—Gause & Bissell, Richmond, Ind.  
Seeds and Plants—Vaughan's Seed Store, Chicago, Ill.  
Fruit Trees—W. A. Marcuse, Marysville.  
Band Comings—Wells, Russell & Co.  
Seeds—Bouk & Hupert, Greenwood, Neb.  
Trees—Kinton Stevens, Santa Barbara.  
Olives—P. S. Gould, Santa Barbara.  
Dividend Notice—People's Home Savings Bank.  
Seeds—B. F. Wellington.  
Seeds—Alineer Bros., Rockford, Ill.  
Olives—Frank Kuiz, Sacramento.  
Gum Trees—Geo. R. Bailey, Berkeley.  
Olives—John Cooke, Berkeley.  
Peach Pits—Oakdale Cannery Co., Oakdale.  
Peach Pits—C. J. Berry, Tulare.  
Harness, Etc.—C. L. Haskell.  
Prune Trees—McKevitt & Wood, Vacaville.

See Advertising Columns.

## The Week.

General attention is turned this week to public affairs. The recurrence of showers, not in great volume but over a great area, has done much to allay the present apprehension, and time not required in pushing field orchard and garden work is devoted to discussing the stirring events transpiring at the State and National Capitals and at the scene of the Indian wars in the new State of Dakota.

The Legislature of 1891 is now organized and at work. The names of the present race of law-makers are given in another column. Before the end of the week Gov. Markham will have been inaugurated and inaugural-balled and set to work in his new place. Ex-Gov. Waterman will have retired to private life with the consciousness of having labored earnestly and untiringly in the promotion of what he conceived to be for the public interest.

## Orange Crop and Markets.

Readers will remember the announcement in our columns of the shipment of oranges from Oroville to the East about Dec. 10th. A report on the sale of this fruit is now made public in the form of a letter from the shipper, who purchased the fruit from the Oroville growers, as follows:

LOS ANGELES, Jan. 2, 1891.

DEAR SIR: I have your letter of December 30th, which has been sent down to me at Los Angeles. I have to say with regard to the several carloads of oranges which we shipped from Oroville to Eastern points, that they gave absolutely entire satisfaction in every case. The fruit arrived in prime condition, and was well received by the trade. A dealer in Denver wrote us that it was very superior, highly

statement telegraphed from Los Angeles on Monday of this week states that the orange-shipment season has opened up and the harvest has commenced. The crop this year is over 125 per cent greater than last. It was 2600 carloads then, while this year it will approximate 4000 carloads. The quality of the fruit is far superior to last year, both in texture and brightness. A condition which will make it difficult to market a portion of the crop is the fact that seedlings are running in a great many off sizes in small oranges. The regular sizes are from 128 to 226 oranges to a box, while inclusive of seedlings it will run largely from 250 to 300 a box, which are very undesirable sizes,



OLD ORANGE TREES IN A MARYSVILLE GARDEN.

colored, uniform-sized, good flavored fruit. Please remember these cars were shipped early in December. It will be understood by fruit men that our Northern California oranges are always bound to be a profitable crop, as they reach market at a time when there is very little fruit to be had.

P. E. PLATT, Manager W. R. Strong Co.

This is we believe the first shipment of northern-grown oranges eastward by carloads, and these facts are very important to the many growers who have young trees just coming into bearing. It now looks as though the product would increase rapidly. Northern-grown oranges have also sold well in this city during the last month, though they have come into competition with unusually large quantities of imported Japanese oranges, which are piled up in peddlers' wagons and on the street fruit-stands, retailing sometimes as low as three dozen for two bits, though sometimes ranging higher. They are poor trash inwardly, so far as our experience with them goes, and outwardly are rich in scale-bugs. No doubt they are plucked for shipment long before they are ripe enough to be eatable.

All reports indicate a very large orange product in Southern California this winter and rather an interesting trade in the crop. A

being too small for first-class trade. With Navels it is just the reverse. They are running to large sizes as compared to other years. Safely one-third of them are off sizes, being too large. The regular sizes of Navels are 112 to 176 to a box, while this year the crop is running largely from 80 to 96 to a box.

The opening of the season's trade is marked by an organization among buyers which has adopted a style of contract they will use, and published a sort of a platform of principles upon which they will operate this winter. The contract is a simple agreement to sell at a certain agreed price, subject to the conditions described on the back of the contract as follows:

The regular sizes of oranges to be as follows: Navels, 128 to 176, inclusive; Paper-rind St. Michaels, 128 to 300, inclusive; Seedlings, and all other varieties, 128 to 220, inclusive; 96 and 200 Navels, 360 St. Michaels, 96, 112 and 250 of Seedlings, and all other varieties, to be 50 cents less per box; 64s and 80s Navels to be sold \$1 per box less. Larger or smaller sizes of Navels than those named above to be classed as Seedlings of same size. Larger or smaller sizes than those named above of all other varieties to be classed as culls and weighed back to the seller.

All oranges to be stem-cut close to fruit, and all windfalls, thorned, limb-scratched, bruised, frosted, sunburned, buttoned or otherwise injured oranges,

to be considered unmerchantable, and classed as culls, and charged back to the seller.

Seventy pounds to be considered a box of Paper-rind St. Michaels, and 65 pounds to be considered a box of all other varieties exclusive of culls.

In their statement accompanying this document, the buyers expressly state that they did not consider the prices to be paid for oranges and seem to desire that they should not be charged with being a combine on the subject of prices. They agree among themselves concerning prices to be paid for packing as follows:

We establish a uniform rate, to pay per box for packing oranges, of three cents per box for graded fruit where the work is done by piece-work. Where fruit is not graded, four cents per box. Where fruit is carried to and from the packers, not to exceed two and three-fourths cents per box.

The dealers, however, seem to apprehend some little friction from the enforcement of their terms, for they make the following formal suggestion:

That it is the sense of this meeting that the orange-growers of Riverside and other orange-growing districts, be requested to call a meeting, and appoint for the whole men to represent them and their interests, at each packing-house in Riverside and other orange districts throughout the packing season, and to remain there and represent them in the weighing and culling of oranges, so as to insure the growers fair treatment, and enable the buyers to buy oranges in the way that they are compelled to sell them.

Whatever the declaration, as stated, of the ten buying firms who have agreed upon the terms which we have outlined, that they have not acted in the matter of fixing prices, there seems to be an impression at the South that the arrangement is not so innocent as appears upon its face. A Los Angeles telegram of Jan. 5th is so unkind as to say: "Buyers of Southern California oranges have perfected an organization for the purpose of controlling and regulating prices. The combine has held a meeting and the evident intention is to freeze out the grower and force him to accept any price they may dictate. The result of this will probably be an organization on the part of the growers for the purpose of disposing of their crop themselves."

This telegram fortunately gives the remedy as well as the disease, so that the latter can be at once applied, in case of the outbreak of the former. The Southern orange-growers have had a good deal of experience during the last ten years, and they are a wide-awake and resourceful people. They can combine and do their own business if need be, and do it successfully. They have done it before.

No doubt, however, the enterprising merchants operating in Southern California oranges are entitled to reward for their energy and business skill, and we trust they will not endeavor to secure more than a fair recompense. If they do not, the vast and increasing trade will proceed satisfactorily and enrich all concerned either as growers or dealers. On the other hand, an iniquitous combine will create a conflict and occasion vexation and losses all around.

## The Marysville Citrus Fair.

On next Monday, Jan. 12th, the Northern and Central California Citrus Fair will open at Marysville. The event has been fully heralded in our columns from week to week, and we are glad to announce that our friends in the Marysville district will give their visitors something worth going long distances to see. The *Appeal* of Tuesday, speaking of the preparations for the fair, says:

It will be a feast for the eye; an astonishing, entrancing display of beauty in foliage and fruit. Everybody in the State should see it, for it will be worth a long journey to behold. It is to be a proud week for Northern California, for Marysville is doing more than justice to the occasion. Scores of enthusiastic ladies are lending their skill and taste to voluntary labors of adornment. Some idea of the extent of the decoration may be gained from the bare statement that thousands of feet of evergreen "ropes"—literally more than a mile of it—has been made for festoons, wreaths and ornamental effects, and many thousands of oranges have been used in the ornamentation of the walls and ceilings. Such beauty and fullness of decoration as will distinguish this fair has never before been attempted in displays of citrus fruits. And the showing of fruit promises to be of a completeness, merit and attractiveness corresponding to the decorative effects.

As shown in last week's *RURAL*, there will be excursions from all leading points in Central and Northern California, and reduced rates for the round trip. There should be a full attendance during the week beginning next Monday.

Visitors will not only see the fair at Marysville. They can find within the city limits many old bearing orange trees like those shown in the engraving on this page.

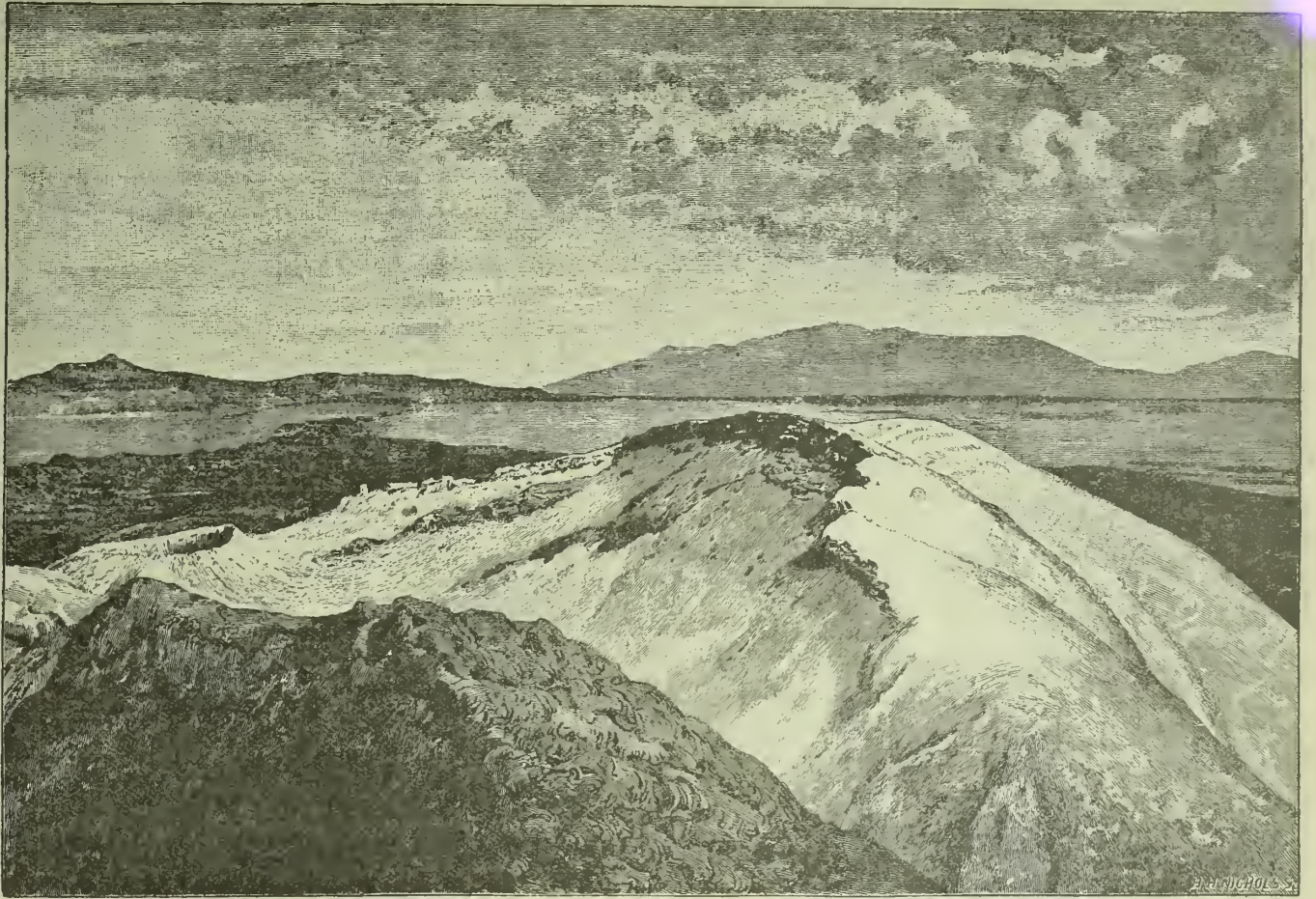


## Ice Spring Craters in Utah.

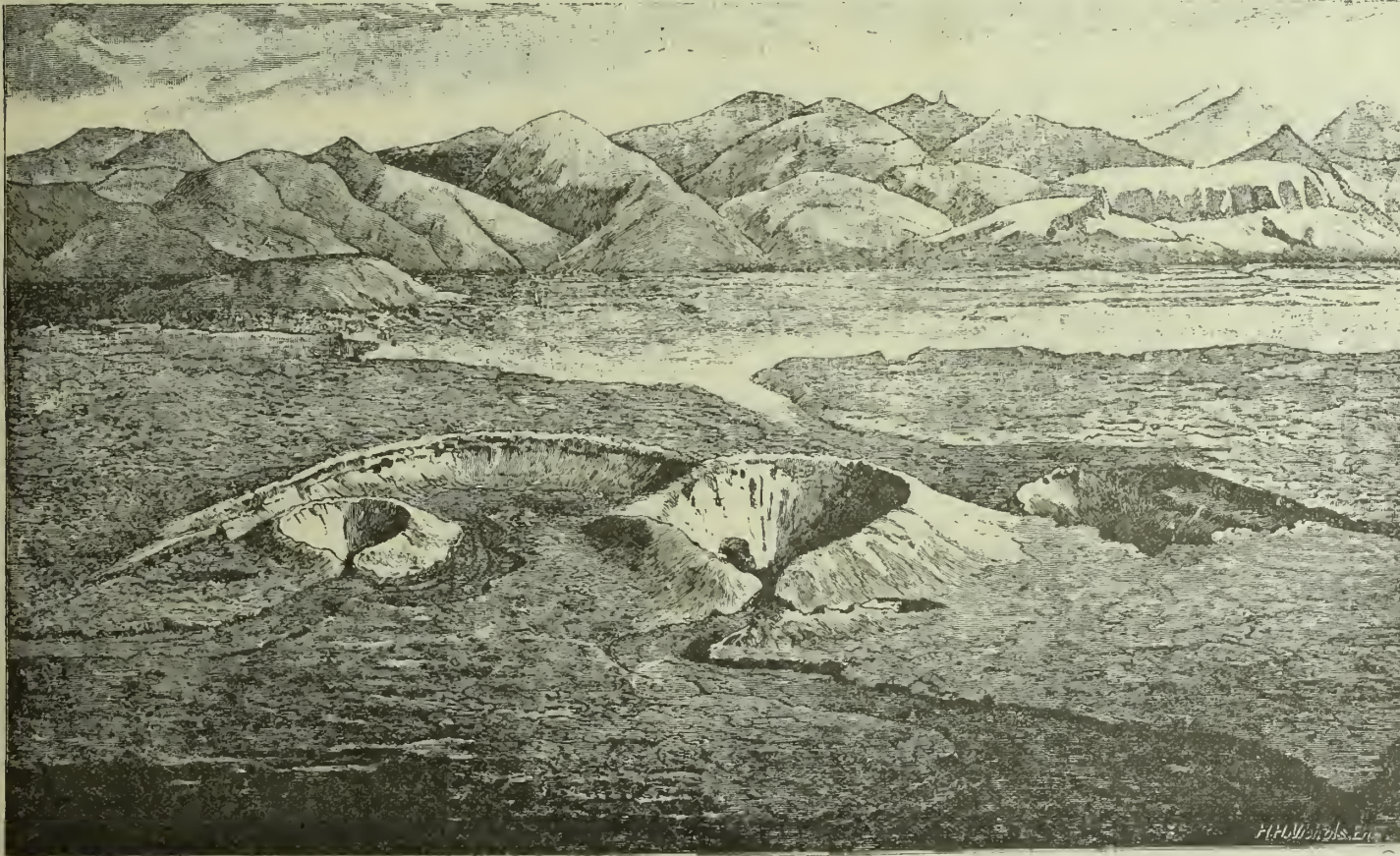
The historic Lake Bonneville, which was the largest of the lakes of the Great Basin, was fed chiefly by the snows of the Wasatch and Uintah mountains. Its catchment basin embraced about five degrees of latitude and three of longitude, containing about 54,000 square miles, or the fourth part of the area of the Great Basin. This region of Utah has been made a subject of special study of late years by the U. S. Geological Survey, and many facts of great scientific interest have been developed.

Of the various volcanic districts of Utah, that which is the most interesting in this connection occupies the eastern portion of the Sevier Desert in the vicinity of the towns of Holden, Fillmore, Corn Creek, Kemosh and Deseret. Nearest to Fillmore is the Ice Spring lava field, with its cluster of craters. The lavas of this locality are the most recent within the Bonneville area, and their phenomena are typical of sub-aerial eruptions. The craters are grouped closely together. There have been at least twelve successive eruptions through as many independent vents within a radius of 1500 feet, and none of these eruptions appears to have been large.

One of the largest of the Sooria hills is the Crescent, shown in the accompanying engravings. It is a crater fragment showing nearly one-half of the original circle. It rises 250 feet above the eastern base, and the entire crater appears to have had a diameter of 2200 feet. One end of the Crescent is buried



ICE SPRING CRATERS; THE CRESCENT AS SEEN FROM THE MITER.

CRESCENT. MITER. TERRACE.  
ICE SPRING CRATERS; BIRD'S-EYE VIEW FROM THE WEST.

beneath a lava crater, the Miter. The other is cut off by a stream of lava flowing from the same.

The Miter, also shown in the engraving, is perhaps the most recent of the craters. Its rim is nearly circular, with a diameter of 950 feet. Its highest side, on the east, rises 275 feet above the central depression. Its history has involved at least two overflows. After it had reached about its present size, the lava rose within it, breached its north side, and discharged.

The discharge was followed by explosive eruptions and the breach was repaired.

Between the Miter and the Crescent, stands a low cone resembling the Miter in form, but only 400 feet in diameter.

The Terrace crater lies just south of the Miter, with an irregular outline and an extreme length of 1100 feet; width, 700 feet. The depth of the crater below its general rim is 260 feet.

The name of the Ice Spring lava beds is derived from what may be regarded as a natural ice-house, existing in one of the deeper hollows of the fields. It is in a natural pit among the lava blocks, and so sheltered by an overhanging ledge that it never receives the direct rays of the sun.

## QUERIES AND REPLIES.

## Grass for Hillside Orchards, Etc.

EDITORS PRESS:—I wish to ask again a question which I asked about a year ago, but to which I got no satisfactory response. Can any one recommend to me a grass, for use in foothill orchards, which will not be injurious to trees and which will serve to prevent the "wash" of late rains to a certain extent?

Also, can any fruit-grower give me his experience with Routier's seedling apricot in the foothills?—P., Stillwater, Cal.

1. Is not the failure to get any satisfactory response to the first question due to the fact that any grass which would fill the soil with roots sufficiently to resist washing would, during the dry season, exhaust so much moisture from the soil for its own growth that the trees would make small growth and bear small fruit? Hillside usually part with their moisture all too soon, even if kept clean and well cultivated, and if turfed would receive less by penetration from winter storms and would lose more by the

demands of the grass roots. We imagine our correspondent seeks for that which he would be glad to be rid of soon afterward; and if he obtained what he sought, in the form of a grass with running roots to hold the soil, he would have something which he would find it very hard to get rid of. What say others?

2. We would be glad to hear more of the Routier's apricot. Perhaps Robert Williamson of the W. R. Strong Co., who first catalogued the variety, can tell us of its adaptations, etc.

## The Linasina Tree.

EDITORS PRESS:—With this I send you a photograph of the South American Linasina tree (*Parkinsonia*), as it appears growing in our yard. It was grown from seed brought by us from the Argentine Republic, is four years old, and is about 15 feet high. The bark is always bright green on the branches and twigs; the limbs are always angular, or jointed, with a thorn at each angle, long and drooping. The compound leaves are composed of a long, flat, slender, midrib (often 20 inches long) with a multitude of very small leaflets arranged alternately on each edge; these fold across the midrib at night in a peculiarly graceful manner. The flowers are about three-fourths of an inch in diameter, light yellow, with a delicate fragrance, and appear from June to September. The fruit is a slender pod, containing from one to seven small beans.

It is a tree of unique appearance, is quite hardy, stands drouth well; will bear some freezing, but how much cold it will stand I cannot say. It makes a beautiful lawn tree, is fine for avenues, and one of the best hedge trees known, where a useful hedge is wanted. It can be pruned and trained as desired.—H. CHURCHMAN, Whittier, Los Angeles Co.

The photograph shows in its general features the points described by our correspondent, but unfortunately is too defective in detail to make it available for producing an engraving. Our readers may, however, be interested in the description as given.

## Prunes at the North.

EDITORS PRESS:—I have heard a prominent fruit-grower of Western Washington make the statement that the Italian prune cannot or is not grown successfully for drying purposes in California. He also claimed that that particular variety of the prune family grew to greater perfection in the south part of Western Washington and in Oregon. I should very much appreciate information as to the above statement. I have set out an orchard of 1500 prune trees (Italian) on newly cleared upland soil, one-third sand and two-thirds shot clay. Do you think the trees need fertilizing, and in place of barn-yard manure, what would you suggest?

There are splendid fruit lands all about this town, and a large number of fruit trees and vines are be-

ing set out this fall and winter.—WM. F. TOLES, Centralia, Wash.

We have heard of this claim before. It may be true, but we apprehend the reason why we grow so few Fellenbergs in this State is not that this variety is worse than at the north, but that the Petite d'Agen does so much better in every way that it takes the lead. The French prune does better than the Italian in the orchard, it makes a better prune and it sells better. It may be very likely that one variety is just the thing for California and the other ditto for the North. This fact is not discreditable to either region.

## Stocks for Soils and Climates.

EDITORS PRESS:—Can you not obtain from practical fruit-growers a series of articles on adaptation of stocks to different soils and climates, as also to different varieties of fruit? It would help many.—GROWER.

Our book, "California Fruits and How to Grow Them," gives quite full consideration to these subjects, and the RURAL correspondents keep the same alive by the receipt of recent individual experience. We always enjoy the receipt of a letter giving actual observations on stocks for fruit trees. Get the root right and the victory is more than half won.



## AGRICULTURAL NOTES

## CALIFORNIA.

## Alameda.

**STEAM PLOWING AND SEEDING.**—Haywards *Journal*, Jan. 2: A steam plow is in operation on a number of the fields of Irvington, and is attracting a good deal of attention. It does its work very speedily and effectively; but some of our old-time farmers think it looks rather uncanny walking over the fields.

Much seeding has been done by the farmers since the recent rains, although the land is a little hard in some places for the plow. There will be much more adobe planted this year than for some years past. Many farmers think best to get the seed in early, and if a dry season follows it will have the benefit of such rains as we do have. Sufficient rain to plow is all that is necessary for some time in this section, as there is plenty of moisture in the ground from last season's downpour.

## Butte.

**EARLY RESULTS.**—Palermo *Progress*: J. Wheeler, who resides about a mile and a half northeast of Palermo, was in town this week and presented us with a dozen seedling oranges grown on his place on trees set out in 1888. The oranges are fine, large ones. Lots of the Palermo trees are loaded with the golden fruit. Mr. Trim has some fine lemons. There is no question but that Palermo will raise some of the finest oranges and lemons in this State.

**LARGE PEACH ORCHARD.**—Palermo *Progress*, Jan. 2: R. A. Moore of Hamilton will plant this winter nearly 5000 peach trees. They will include the orange, Edwards, Tuscan, and other fine varieties of the cling peach, and also the early Crawford, Salway, Muir and other choice freestone peaches. He will plant his orchard north of his residence on the fine rich bottom-land adjoining the famous Hatch & Rock orchards.

**EXTENSIVE RAISIN-GRAPE CULTURE.**—Chico *Enterprise*, Dec. 29: The Marysville Vineyard Co. of Colmena, organized to cultivate grapes on a large scale, has purchased 100 acres at Colmena and will begin at once. Raisins produced there this year are excellent and the yield is good. The directors are H. Juch, J. M. Berry, F. C. Miller, F. H. Greeley and J. H. Flint.

**SECOND-CROP PEARS.**—James McPherson, Garden Ranch, Dec. 29: I had a considerable second crop in my Bartlett pear orchard and when picking the first crop pulled off at least two-thirds of the second crop and threw them away. In October I picked the remainder of the second crop, about 400 pounds. They were of good size and seemed to me to contain more sugar when mellowed than the first crop; so Butte county is not behind in anything I can see, except roads.

**TREE PLANTING NOTES.**—Oroville *Mercury*, Jan. 2: The Messrs. Power, three miles east of Oroville, have 18 acres of oranges and are now preparing ground for seven acres more. They will be content with a 25-acre orange grove and about as many acres in peaches, olives and figs, which they are now preparing to plant. . . . Oroville *Register*, Jan. 2: Chas. Charvot of Thermalito will begin planting next week 500 orange trees. These will be 400 seedlings and 100 Washington Navels. He will also plant 1000 early White Muscat grapes, 300 Tokay and 200 French wine grapes, and will set out 50 White Adriatic figs and 100 Villa Franca lemons. Mr. R. Power of Olive district will plant this winter 22 acres in addition to the number of fruit trees now growing upon his land, thus making an orchard of 40 acres. Of this, 25 acres will be in oranges, while the remainder will be in olives, almonds, etc.

**INCREASED ACREAGE SEEDED TO WHEAT.**—Gridley *Herald*, Jan. 3: Grain sown upon summer-fallow land long enough to sprout is coming up nicely and presents a very thrifty appearance. Winter sown has not been planted a sufficient length of time to germinate, although we hear of several tracts sown the early part of last month upon which a slight tinge of green can be seen. From the information at our command, however, we judge that the present area of this class of sowing will be increased fully one-third during the next fortnight, the weather and condition of the soil being exceedingly fine for the work. In fact, three-fourths of our ranchers seem to be thus engaged at this writing. It is safe to say that the aggregate acreage sown to wheat in Gridley township will exceed that of last season over one third, while the season so far has been so favorable that ranchers whose judgment is generally accepted as reliable, predict the largest crop harvested since 1890. The indications are that the acreage sown in barley will be at least twice that of last season.

## Colusa.

**A FARMERS' TELEPHONE.**—Willows, Jan. 1: Jeff Garnett has utilized three miles of barbed wire fence for a telephone. It runs from his old home to his new residence. A small wire is attached to a telephone in each house and thence to the wire fence.

## Fresno.

**SMALL FRUITS PAY WELL.**—Fresno *Expositor*, Jan. 3: There is considerable interest being taken among the fruit-growers of Fresno county, and particularly the colonists, in the culture of strawberries, blackberries and raspberries. The strawberry in particular has received much attention during the past year. One of our col-

onists has been very successful in producing the variety known as the "pineapple." It has a fine flavor and grows luxuriantly. The most profitable results can be obtained by planting out between rows of fruit trees, and they usually provide more plant food in the way of fertilizers than they take off. They generally produce best and grow more readily when placed upon ridges where they can be irrigated from the ditches. The profits derived from the strawberry are very large, as the home product, being fresh for the market, is always preferable. Blackberries are being produced extensively in the orchards, and, like the strawberry, they provide fertilizing food in excess of that which they consume when planted and cultivated with fruit trees. Several of the small land-owners in the colonies have adopted this plan, and the results have been very satisfactory. The Kittatinny and Lawton are the favorite varieties, and are found to produce very largely. The New Rochelle raspberry has been a favorite with producers, but the best results have not been obtained, owing to the sun beat, which overtakes them before the ripening season. In shaded localities they mature and are delicious.

## El Dorado.

**AN EL DORADO NURSERY.**—El Dorado *Republican*, Jan. 1: The W. R. Strong Co. of Sacramento is preparing to start a nursery near Placerville, and is now negotiating for about five acres of land favorably located for that business.

## Humboldt.

**FRUIT INDUSTRY.**—Eureka *Humboldt*, Jan. 1: Over 14,000 boxes of apples have been sent out of the county during the last six months. There are many people interested in the question of apple-growing. All of the owners of the 2000 orchards in the county are beginning to feel that good varieties of apples find a ready market than the more common products of the farm. They already know that they are a surer crop, and that the labor involved in fruit cultivation is much lighter and pleasanter work than growing potatoes and cereals.

## Los Angeles.

**BANANA-GROWING.**—Santa Monica *Outlook*, Dec. 31: John Steere brought into our office this morning some large ripe bananas, grown on his premises and picked from a bunch of 65, all ripe. Mr. Steere also showed us specimens that had attained the remarkable growth of eight feet during this year. This is a specimen of richness that belongs to at least 20,000 acres of land in this vicinity.

## Napa.

**VITICULTURAL NOTES.**—Napa *Register*, Jan. 2: There are in the county upward of 640 vineyards, containing five acres and more each. The great bulk of these are located between Yountville and Calistoga. From the former town to St. Helena the valley is almost a solid vineyard, and large fields of vines extend far up the slopes of the hills on either side. There are 20 or more vineyards in Pope valley, though none of them are of great extent. In Conn and Chiles valleys and contiguous billides there are quite a number of vineyards in good condition. There are a few excellent vineyards on Howell mountain, where a very fine quality of grapes is produced in good quantity. Foss, Berryessa, Wooden, Capelle and Gordon valleys cannot be said to be ranked as grape-producing localities. Not but that vines would flourish and bear abundantly there, but their isolation and the expense of transporting grapes when ripe or wine when pressed is too great to justify the investing of much capital in this industry. In the Sycamore hills there are but few vineyards. In Brown valley, the Redwoods and away toward and to the Sonoma county line, along the highway leading from Napa City to Sonoma, are to be found vineyards of greater or less extent. In almost all vineyards in the county there are to be found two or three varieties of vines, viz.: Zinfandel, Riesling and Chasselas. These appear to be standard wine grapes. In very many there are grown from five to 20 other varieties, many of which are the finest wine grapes to be found anywhere on the globe. The yield of grapes this season has, in many instances, been larger than viticulturists counted upon in the early summer months; in other cases not so much. The quantity is considerable, the quality superior. Good prices ought to be obtained for the season's yield. There are in the county over 17,000 acres of bearing vines. These have yielded from one ton to five or more per acre, according to the location, age and condition of the vineyards.

## Orange.

**THE POTATO CROP.**—Anaheim *Gazette*, Jan. 1: Tim Carroll's big potato patch was a scene of activity last week. A gang of men was engaged in digging the second potato crop this season. The first crop went 375 sacks to the acre, and the second crop will go in the neighborhood of 150 sacks, worth 2½ cents per pound for seed. This potato land has produced on an average over 500 sacks per acre the past season. The first crop brought in over \$4000, and the present one will go well up toward that figure. Next year Tim will have 100 acres planted to this paying crop. J. L. Holly, who some weeks ago purchased a Prun potato-digger, which E. A. White procured for him from the factory at Hoosac Falls, N. Y., informs us that it works like a charm on the peat-lands south of town. He digs five acres of potatoes per day with it. Mr. Holly has 25 acres in potatoes this season, and has just dug his second crop, which yielded largely. Next year he will plant

50 acres. There are several hundred acres planted to potatoes in this county. The second crop, now being dug, promises to bring prices quite as satisfactory as those which ruled for the first crop, although no one looks for a recurrence of the high prices paid for potatoes in the spring.

## San Bernardino.

**COLTS KILLED BY WIRE FENCE.**—San Bernardino *Times-Index*, Jan. 3: James W. Waters had two very valuable blooded colts, for one of which he was offered, a few days ago, \$300. Thursday morning he had a man take the colts from his stable to pasture them. The man proceeded with them all right until a dog rushed out and frightened them so that they ran into a wire fence, injuring both so that one of them will die from the effects and the other will never amount to much. The foreleg of one of the colts was cut almost off, while the other was cut and injured in several places. Mr. Waters will find out whether a wire fence is lawful or not.

**ORANGE-INDUSTRY GROWTH.**—Riverside *Press and Horticulturist*, Jan. 3: Riverside in 1872 was a poor sheep ranch. In 1880-1 it shipped 15 carloads, or 4290 boxes, of oranges; the amount yearly increased, until in 1888-9 it was 925 carloads, or 263,879 boxes. In 1890 it rose to 1253 carloads, or 358,341 boxes; and an important fact is that the largest shipment was in April (455 carloads, or 130,226 boxes) at the time when the supply from other orange regions for the markets East had nearly ceased.

**BEETS IN DECIDUOUS FRUIT ORCHARDS.**—Chico *Champion*, Jan. 2: The past year proved that deciduous fruits brought about as large incomes, acre for acre, as citrus. Deciduous fruit trees come into bearing sooner than orange and lemon trees. Now that the beet-sugar industry is established here, the expense of growing a deciduous fruit orchard can be more than met by cultivating beets between the rows. This is no theory but a demonstrated fact. There are many thousands of acres of the Chico moist and semi-moist lands, which are bigly suited to this kind of double culture. It has been very satisfactorily proven at Watsonville that over \$40 an acre net can be made from beets grown in orchards till they are three years old.

## Solano.

**CROP PROSPECTS.**—Dixon *Tribune*, Jan. 2: It is estimated that the acreage sown to grain in this locality will be at least one-third more than in ordinary seasons. After the heavy rains of last season, however, a very large area of land was summer-fallowed, but owing to the excessive moisture a large portion of it had been overgrown with rank vegetation, which exhausted the soil to a considerable extent, so the yield, under the most favorable conditions, cannot be expected to exceed the usual rate.

## Stanislaus.

**SEEDING ABOUT OVER.**—Oakdale *Oor. Modesto Herald*, Jan. 1: We have recently interviewed several leading farmers and find they have made the best of the favorable season for seeding. The area sown is large and the work has been thorough, owing to the favorable condition of the soil. John McHugh, a prosperous grain-grower, who resides south of Oakdale, stated to the writer yesterday that a few of his neighbors had finished for the season; that all had their work well advanced, and with a few exceptions would finish up this week.

## Sutter.

**CROP STATISTICS.**—Yuba City *Independent*: The crop statistics for the season of 1890, as returned by the county assessor, are as follows in acres: Wheat, 43,412; oats, 380; barley, 4899; corn, 106; hay, 4802; number fruit trees, 185,216; vines, acres, 691.

**RAISIN NOTES.**—Yuba City, Jan. 1: The Sutter County Fruit Co. packed 22,500 boxes of raisins this season. Wm. Calmes of College City sold last year over \$5000 worth of raisins from 17 acres. No irrigation. There will be between 300 and 400 acres of raisin grapes planted close around College City this year, besides a number of large vineyards farther out.

**GRAIN CROP ITEMS.**—Nicolans *Cor. Yuba City Independent*, Jan. 2: The ground was never in better condition for plowing than at present. The farmers are taking advantage of the favorable weather, and a large amount of winter plowing has been done. Owing to the late rains and the very heavy fogs which have followed them, the top of the plowed ground has been so sticky as to render harrowing exceedingly difficult, if not impossible. While it has not rained here for nearly two weeks, yet the absence of sunlight and continual presence of the fog have combined to keep a great deal of grain from being sown that would have now been in the ground. The acreage sown to grain will be the largest ever known here. Last winter's water on the acreage very short, and so a correspondingly large amount of land was summer-fallowed, which, together with the winter-sown grain, swells the acreage for next year's crop to the largest ever known in this community. The summer-fallowed grain is up and looks well, and with a reasonable season, a large crop may be expected.

## Tulare.

**POULTRY-RAISING.**—Tulare *Register*, Jan. 2: This is a great poultry region, and thousands of dollars are involved. In a ride out over the country, great flocks of chickens, turkeys and ducks are seen in such numbers that one wonders what will be done with them all; but they go and good American coin comes. The demand is great at home, while a dense popu-

lation of non-producers in the bay region is to be supplied. With all the home product, large quantities of poultry and eggs are shipped in from the East.

**LARGE ACREAGE TO GRAIN.**—Traver *Advocate*, Jan. 1: J. H. and Charles Johnson of Dinuba have just finished putting in 1000 acres of the Pleasant Valley Stock Farm, eight miles west of Huron, into grain. The company that owns this land has one of the largest and finest farming properties in the State. It has an abundance of water for irrigation even for its wheat-fields, also a large alfalfa-field and a nice one-year-old vineyard. Water for irrigation is taken from the Poso and the company is getting ready to still further enlarge its ditches for irrigation. This fall and winter has been one of the most favorable ever known here for farming. There has been no frost to speak of; the rainfall has not been so heavy as it was last year up to date, but for the past month the soil all over the 76 country has been in excellent condition for plowing and the land has been rapidly seeded to grain or being prepared for trees and vines. Even the adobe wheat-lands in toward the foothills, a good part of which could not be seeded last winter, or was poorly put in, owing to frequent rains causing the soil to become sticky and unfit to plow, are being seeded successfully this season, and if there is an abundance of spring rains the wheat crop of the 76 country for the season of 1890-91 bids fair to exceed in productiveness the noted season of 1889-90. Farmers are all pleased with the outlook for abundant crops and the work of seeding goes merrily on.

**TREE AND VINE PLANTING.**—Visalia *Times*, Jan. 1: I. H. Thomas estimates that 4000 acres of land in Tulare county will be planted to trees alone this winter. The acreage that will be devoted to vines may exceed this figure.

**ACREAGE TO RAISIN GRAPES.**—Visalia *Delta*, Jan. 1: About 2000 acres will be planted to raisin grapes this spring about Traver. The Carmelito Vineyard Company, of which S. F. Earl is secretary, and which purchased 800 acres of fine land, is building a nice residence, barn, etc., and will this year plant 160 acres to raisin grapes. Its ranch is located in the Kings river bottom, on the old 76 ranch.

**LARGE WHEAT RANCH.**—Traver, Jan. 1: J. M. Clark & Brother, who farm for wheat 2900 acres of land near Traver, are running eight 8-horse teams and putting in on an average 100 acres a day. They drill their wheat; hence their success.

## Ventura.

**VENTURA'S PRODUCE SHIPMENTS.**—Los Angeles *Express*, Jan. 2: The bean shipments of Ventura county have so far this season numbered about 600 cars. There are yet 400 cars to be shipped before the entire crop is sent to market. This crop is from 13,924 acres planted to beans. There were shipped from this county during the past season 6000 tons of apricots, 600 of prunes, 300 of apples and 200 of peaches. The walnut crop measured 150 tons, the orange and lemon crop 250 tons. There were 3600 acres planted to wheat, 60,200 to barley, 7500 to corn and 193 to oats. This season it is estimated that the crop will be 20 per cent in advance of that of last season. The available lands of Ventura county are being fast taken up and profitably cultivated, much of the credit for which is due to the Southern Pacific railroad and its extensions.

## ARIZONA.

**IRRIGATION.**—Yuma *Times*, Dec. 31: There are 701 miles of irrigation canals in the Territory, and 295,200 acres of land irrigated. The arable land which is practically irrigable, amounts to 5,550,000 acres. The Governor solicits the General Government to grant to the Territory all the public lands within its borders for reclamation and development. It is claimed that where irrigated, Arizona has the richest soil and is the best hay and vegetable country in the world.

**LARGE RESERVOIR AND IRRIGATING CANAL.**—Phoenix *Republican*: Few of our people are aware of the existence of one of the most important enterprises in Central Arizona. That old pioneer, Wm. A. Hancock, assisted by L. H. Orme, J. D. Monihon and N. O. Murphy, in 1888, organized the Agua Fria Water & Land Company, with a capital stock of \$3,000,000, for the purpose of storing in reservoirs the water of the Agua Fria river, in order that it might be used for irrigating the large body of land that lies on both sides of that river, that on the east side reaching down to the line of the Arizona canal, within 10 miles of the city of Phoenix. The lower reservoir site is at Frog Tanke, and with a dam 100 feet high, will store 8,000,000 cubic feet of water. The upper site, 10 miles farther up the river, with a dam 150 feet high, will store 30,000,000 cubic feet of water. The watershed of the river and its tributaries, above the lower dam, contains 150,000 square miles, and with an annual rainfall of 15 inches, it will afford 50,000,000,000 cubic feet, or an ample supply of water for irrigation of 150,000 acres. The main canal will be 45 feet wide on the bottom and 55 feet at the surface of the water, six feet from the bottom. The grade will be two feet per mile. At the Calderwood Butte, 12 miles below the dam, the water for the land on the west side of the river will be carried across the river in large pipes, supported by a suspension bridge, with a fall of 50 feet in crossing the stream. The construction of the dams and canals, including 40 miles of laterals, will involve the expenditure of probably \$1,400,000.



## The Northern Citrus Fair.

The California State Citrus Fair for the counties outside of the 6th Congressional district will be held at Marysville, Cal., opening Jan. 12th and continuing through the week. G. W. Hancock and John Boggs are Managing Directors. The officers of the local association are: Norman Rideout, President; G. W. Harney, Secretary; G. W. Peacock, Treasurer; James O'Brien, Jr., Superintendent.

The Southern Pacific railway will return exhibits free of charge on presentation to the agent at Marysville of a certificate from the Secretary of the fair saying that the property has been on exhibition, and has not changed hands. Wells, Fargo & Co. will also bring exhibits at their special fruit rates.

Enter exhibits and apply for space at once. Apply to or address G. W. Harney, Sec'y, 2d St., Marysville, Cal.

## PREMIUM LIST.

## Open to Producers Only.

## CLASS 1—COUNTY EXHIBITS.

Best exhibit of citrus fruits by one county.  
First premium...\$200 00 | Second premium \$150 00  
Third premium...100 00 | Fourth premium 75 00

## CLASS 2—WASHINGTON NAVELS.

The largest and best exhibit of Washington Navel oranges by one grower. The exhibit to receive an award under this premium must contain not less than 2000 oranges.  
First premium...\$200 | Second premium...\$100

## CLASS 3—WASHINGTON NAVELS.

Best exhibit of Washington Navel oranges. (Any exhibit competing in class 2 will not be entitled to compete in this class.)  
First premium...\$50 | Second premium...\$30  
Third...20

## CLASS 4—BUDDED ORANGES.

Best exhibit of budded oranges other than Washington Navel.  
First premium...\$25 | Second premium...\$15  
Third...10

## CLASS 5—BUDDED ORANGES.

Best 12 budded oranges exhibited and grown by one person.  
First premium...\$10 | Second premium...\$9  
Third...8 | Fourth...7  
Fifth...6 | Sixth...5  
Seventh...4 | Eighth...3  
Ninth...2 | Tenth...1

## CLASS 6—SEEDLINGS.

Best exhibit of seedling oranges.  
First premium...\$100 | Second premium...\$75  
Third...50

## CLASS 7—DOZEN SEEDLINGS.

Best 12 seedlings by one grower.  
First premium...\$10 | Second premium...\$9  
Third...8 | Fourth...7  
Fifth...6 | Sixth...5  
Seventh...4 | Eighth...3  
Ninth...2 | Tenth...1

## CLASS 8—LEMONS.

Best display of lemons.  
First premium...\$50 | Second premium...\$30  
Third...20

## CLASS 9—LIMES.

Best display of limes.  
First premium...\$10 | Second premium...\$5

## CLASS 10—SHADDOCKS.

Best display of shaddock and pumalos.  
First premium...\$5 | Second premium...\$3  
Third...2

## CLASS 11—OLIVES.

Best display of olives.  
First premium...\$20 | Second premium...\$10  
Third...5

## CLASS 12—PICKLED OLIVES.

Best display of pickled olives.  
First premium...\$10 | Second premium...\$5

## CLASS 13—OLIVE OIL.

Best display of olive oil.  
First premium...\$50 | Second premium...\$25  
Third...15 | Fourth...10  
Fifth...5

## CLASS 14—PERSIMMONS.

Best exhibit of persimmons.  
First premium...\$5 | Second premium...\$3  
Third...2

## CLASS 15—POMEGRANATES.

Best display of pomegranates.  
First premium...\$3 | Second premium...\$2  
Third...1

## CLASS 16—RAISINS.

Best display of raisins.  
First premium...\$100 | Second premium...\$75  
Third...50 | Fourth...25  
Fifth...10

## CLASS 17—DRIED FIGS.

Best display of dried figs.  
First premium...\$25 | Second premium...\$15  
Third...10 | Best display of dried White Adriatic figs 20

## CLASS 18—PRUNES.

Best display of dried prunes.  
First premium...\$50 | Second premium...\$25  
Third...10

## CLASS 19—DATES.

Best display of dates.  
First premium...\$5 | Second premium...\$2

## CLASS 20—DRIED FRUITS.

Best general exhibit of dried fruits other than raisins.  
First premium...\$100 | Second premium...\$75  
Third...50 | Fourth...25

## CLASS 21—PRESERVED AND CANNED.

Best exhibit of canned and preserved fruits exhibited by others than packers.  
First premium...\$15 | Second premium...\$10  
Third...5

## CLASS 22—NUTS.

Best general exhibit of nuts.  
First premium...\$15 | Second premium...\$10  
Third...5

## CLASS 23—NURSERY STOCK.

Best exhibit of citrus nursery stock...\$25

## CLASS 24—PLANTS AND FLOWERS.

Best exhibit of potted plants and flowers.  
First premium...\$10 | Second premium...\$5  
Third...2

## CLASS 25—ESSAY.

Best practical essay on orange culture (limited to 2500 words)...\$50  
The essay must be type-written and delivered to the Secretary on or before Jan. 10, 1891, unsigned but accompanied by a letter giving name of contributor.

## CLASS 26—WINES.

Best general display of wines by maker...\$50

## CLASS 27—MOST ARTISTIC DISPLAY.

Most artistic display...\$50

## Rules and Regulations.

1. All exhibits must be in position and readiness for examination by the judges at 12 o'clock noon Tuesday, and no premiums will be paid on any article on exhibition unless properly entered on the Secretary's books before that time, and in the place assigned them for exhibition.

2. All exhibitors must obtain a card with number on from entry clerk to agree with exhibit. This card must be kept in a conspicuous place near the exhibit.

3. Competitors must be producers except in the competition for wines, in which case maker is admitted.

4. No article or exhibit entered for premium can be removed before the close of the fair without permission of the superintendent.

5. Free cartage in Marysville for all exhibits.

The best anodyne and expectorant for the cure of colds and coughs and all throat, lung and bronchial troubles, is, undoubtedly, Ayer's Cherry Pectoral. Ask your druggists for it, and, at the same time, for Ayer's Almanac, which is free to all.

## Don't Fail to Write.

Should this paper be received by any subscriber who does not want it, or beyond the time he intends to pay for it, let him not fail to write us direct to stop it. A postal card (costing one cent only) will suffice. We will not knowingly send the paper to any one who does not wish it, but if it is continued, through the failure of the subscriber to notify us to discontinue it, or some irresponsible party requested to stop it, we shall positively demand payment for the time it is sent. LOOK CAREFULLY AT THE LABEL ON YOUR PAPER.

## \$500,000

TO LOAN IN ANY AMOUNT AT THE VERY LOWEST market rate of interest on approved security in Farming Lands. A. SCHULLER, Room 8, 420 California St., San Francisco.

## \$3,250,000

TO LOAN ON MORTGAGE ON RANCHES AND CITY real estate below market rates. HOWE & KIMBALL, 508 California St., S. F.

# STATE CITRUS FAIR

FOR  
NORTHERN  
CALIFORNIA  
WILL BE HELD AT  
MARYSVILLE  
JAN. 12<sup>th</sup> TO  
JAN. 17<sup>th</sup> 1891  
CASH PREMIUMS  
\$2500.

IT STANDS AT THE HEAD

"DOMESTIC"  
THE LIGHT RUNNING

DO NOT FAIL TO SEE THE "DOMESTIC"  
Before Buying a Sewing Machine.  
It is the lead in practical progress. Send for price list  
W. EVANS, 29 Post St., S. F.

# Pretty Palermo!

## THE QUEEN COLONY OF THE NORTHERN CITRUS BELT.

The visitors to the Citrus Fair at Marysville should not make a mistake and return home without having seen the pretty and prosperous Colony of Palermo. It is but an hour's ride on the Oroville train and the time is well expended.

The Colony comprises about 7000 acres and is situated on the line of the branch Railroad from Marysville to Oroville, being five miles from the latter place, which, by the way, is the County Seat of Butte County.

A large tract, which gently slopes from the railroad to the foothills, is divided into

### LOTS OF FIVE ACRES AND UPWARD,

And the wide streets, avenues and beautiful drives form a feature of Palermo's prosperity.

A bountiful supply of pure fresh water is everywhere distributed. Large and permanent reservoirs assure to the Palermo Colonists an absolutely unlimited supply of water for irrigation.

As an indication of their belief in the increasing prosperity of Palermo, it may be mentioned that the Railroad Company has recently purchased the Townsite and constructed a commodious depot. Recently the "Palermo Progress," a weekly paper, has made its appearance, and telegraph, express and post offices were established long since. A general merchandise store, church, planing mill, blacksmith shop, etc., etc., form the nucleus of a future city.

### COMFORTABLE HOMES,

Surrounded by orange groves, dot the plains of Palermo. Thriving orchards and vineyards prove the great value of the various tracts now offered for sale.

PURCHASE AT PALERMO. PLANT ORANGES AND FRUITS AND BECOME PROSPEROUS AND HAPPY, is the advice of

## McAFEE, BALDWIN & HAMMOND,

REAL ESTATE AGENTS AND AUCTIONEERS,

10 MONTGOMERY STREET, - - SAN FRANCISCO.

## BLISTER FOR HORSES.

WHAT TO USE.

For a blister to use on live-stock,

## COMBAULT'S CAUSTIC BALSAM

Has NO EQUAL. Why?

Because it is a perfectly safe remedy for any one to use. After applying as directed it needs no attention, acts quickly and is effective. Removes all bunches or enlargements and guaranteed not to leave scar or blemish. Supersedes all cautery or firing. Every bottle sold is warranted to give satisfaction. Price \$1.50 per bottle. Sold by all druggists, or sent by express, charges paid, with full directions for its use. Send for descriptive circulars. Address LA WRENCE, WILLIAMS & CO., Cleveland, O.

## PEOPLES HOME SAVINGS BANK,

805 Market Street, in Flood Building.

### DIVIDEND NOTICE.

FOR THE HALF-YEAR ENDING DECEMBER 31, 1890, a dividend has been declared at the rate of five and fifty-two one-hundredths (5.52) per cent per annum on term deposits and four and sixty one-hundredths (4.60) per cent per annum on ordinary deposits, free of taxes, payable on and after FRIDAY, January 2, 1891. B. O. CARR, Secretary.

## The German Savings and Loan Society,

526 California Street.

### DIVIDEND NOTICE.

FOR THE HALF-YEAR ENDING DECEMBER 31, 1890, a dividend has been declared at the rate of five and forty-hundredths (5.40) per cent per annum on Term Deposits, and four and one-half (4 1/2) per cent per annum on Ordinary Deposits. Payable on and after FRIDAY, January 2, 1891. GEO. TOURNEY, Secretary.

## SAN FRANCISCO SAVINGS UNION

532 California Street, Corner Webb;  
Branch, 1700 Market Street, Corner Polk.

FOR THE HALF-YEAR ENDING WITH 31st DECEMBER, 1890, a dividend has been declared at the rate of five and four-tenths (5 4/10) per cent per annum on Term Deposits and four and one-half (4 1/2) per cent per annum on Ordinary Deposits, free of taxes, payable on and after FRIDAY, 2d January, 1891. LOVELL WHITE, Cashier.

### ANNUAL MEETING.

THE REGULAR ANNUAL MEETING OF THE Stockholders of the GRANGERS' BANK OF CALIFORNIA, for the election of Directors for the ensuing year, will take place at the office of the Bank, in the City of San Francisco, State of California, on TUESDAY, the 13th day of January, 1891, at one o'clock P. M. For Grangers' Bank of California.

ALBERT MONTPELLIER,  
Cashier and Manager.

## "Neponset" Waterproof Paper.

NEPONSET MILLS.

THESE PAPERS are all guaranteed to be absolutely water proof, air-tight and odorless.

For sheathing and lining of buildings; for roofing of a factories, storehouses and farm buildings.

They are entirely unaffected by heat, cold, snow or rain.



"NEPONSET" SHEATHING (color black).  
NO. 1 "NEPONSET" ROPE ROOFING (color terra cotta).  
NO. 2 "NEPONSET" ROPE ROOFING (color terra cotta).

These papers are in rolls 36 inches wide, and they contain either 250 or 600 square feet per roll, and weigh about 20 or 40 pounds per roll, respectively.

DIMMICK & LOW, Agents,  
221 Front Street, - - San Francisco, Cal.

### ECONOMY

—TO—

Housekeepers!

PEERLESS  
STEAM COOKER

Superior to All Others.

GEO. W. SHREVE,  
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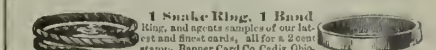
HORTON & KENNEDY still continue to supply the famous

## ENTERPRISE WINDMILLS.

These Windmills have been advertised in and known by the readers of the PACIFIC RURAL PRESS for over 20 years. The Best is the Cheapest. Write for circulars and prices.

## HORTON & KENNEDY,

Livermore, Alameda Co., Cal.  
San Francisco Agency, JAMES LINFORTH, 87 Market St.





## HORTICULTURE.

## Culture of Citrus Fruits in Northern California.

At the recent convention of fruit-growers at Santa Cruz, under the auspices of the State Board of Horticulture, the following essay was read by S. S. Boynton of Oroville. This interesting paper was first published in the *RURAL* of Dec. 13, but is here repeated as especially appropriate for circulation at the Marysville Citrus Fair:

The culture of citrus fruits in Northern California is no longer theoretical or experimental, no longer a conceit, a supposition or a belief, but is a solid, enduring, self-evident and living fact. The orange and lemon are there not dooryard ornaments, set as curiosities, placed in sheltered and protected spots, and are not grown under conditions more favorable than are elsewhere in this State awarded to these fruits. The "Northern Citrus Belt" has long been the butt of good-natured ridicule, the subject of jest and laughter by those who had interests to subserve by crying down its merits and deriding its possibilities. The time is, however, near at hand when its true light will burst forth with a vividness and brilliancy little dreamed of by those who have not studied its grand capabilities and its enormous territorial extent.

Within the next few years such a quantity of citrus fruits will be produced and shipped from that region as will forever set at rest any aspersions or reflections upon that land as a citrus-fruit region. The day is by no means distant when its orange and lemon trees will be numbered by millions, and when its annual output of these fruits will amount to thousands of carloads.

We are not talking at random upon this subject nor carried away by enthusiasm. We have given the subject not only months but years of careful study, and know whereof we speak.

For a full score and ten years the historic orange tree at Bidwell Bar, in Butte, 200 miles north of where we now are, has blossomed and borne fruit without the loss of a single crop, and stands to-day a mute but eloquent green and living witness whose testimony is worthy of consideration and belief. While in a hundred spots throughout the counties of Butte, Yuba, Placer and others that might be named, oranges, olives and lemons have been in bearing for the past 20 years, yet citrus culture in its broad and commercial sense is still in its swaddling-clothes.

In September of 1885, in the town of Oroville, the first suggestion was made of holding a citrus fair in Northern California. Then the Sacramento *See* caught up the idea and asserted that the citizens of Oroville knew that oranges could be grown there, but what was needed was to convince others of that fact. It urged that a citrus fair held in Sacramento, the capital of the State, ought to and would accomplish this purpose. The residents of Oroville coincided with the statements of the Sacramento journals and those of other towns fell into line. The business men of the capital city made that exhibition a reality, and fruit from 12 different counties was displayed at the first citrus fair of Northern California. That extensive, marvelous, and splendid display of the semi-tropical productions of the northern part of this State, at once, and for the first time, awakened the people of that region to the possibilities of their soil and climate, and was the direct cause of the great planting of citrus trees that has since taken place. The first fair was held in January of 1886, so that the oldest trees, set out since that date, and which comprise more than nine-tenths of the total number of the whole region, are only four years old at the present time.

It will thus be seen that citrus culture on an extended scale is a new industry in Northern California. The first man to be aroused and stimulated to action was Hon. John C. Gray of Oroville, who left the pavilion in which that fair was being held, hurried to his home, had 20 acres of land prepared, went to Santa Clara county and purchased 2000 young olive trees, and while the fair was still fresh in the minds of all, he had these 2000 young trees planted in Butte county soil. He has since continued in the line thus begun and has now 10,000 young and thrifty olive trees, and from several hundred of these he will this year gather fruit. That he made no financial mistake is evident from the fact that he has since been offered \$500 an acre for his olive plantation. Other citizens of Oroville were quickened to activity by his example and an organization of the leading business men of that town was speedily effected. Thirty acres of good land were secured; two of the company went to Riverside and purchased 2100 Washington Navel orange trees, and during May and June these were planted on the north bank of Feather river in what is now the colony of Thermalito. The land cost them \$100 an acre, the trees were \$1.25 each, and to this must be added the cost of transportation, planting and caring for them during the intervening years. It will thus be seen that these gentlemen were not afraid to back their ideas and opinions of citrus culture with their coin. This grove has since been increased and at present numbers 3300 orange trees. They are now loaded with fast ripening

fruit and this year will yield a large and abundant crop.

Citrus-fruit planting was by no means confined to Butte, but all the other counties of the Sacramento valley felt the influence. A second citrus fair was held in the capital city in December of 1886, two fairs thus being held in one year, one in January and the other in the following December, and at this last fair fruit from 22 counties was displayed. These fairs, and liberal advertising by newspapers, caused much attention to be paid to citrus culture in Northern California, especially in the Sacramento valley and its adjacent foothills. Trees were planted not only in the sheltering foothills and on high and well-drained land, but in the open valley, and even along the low river bottoms, the very last place where an orange grove should be set. As a result of this movement continued during the past three years we have in the vicinity of Oroville, Thermalito and Palermo in Eastern Butte 98,349 orange, 6812 lemon and 49,600 olive trees, a total of 154,761, or in round numbers about 1500 acres. The number of citrus trees planted in other Northern California counties I am unable to state with exactness, but know that Placer, Sacramento, Colusa, Tehama, have all large numbers, and that Yuba in addition to her smaller tracts has planted one splendid young orchard of 130 acres or 13,000 orange trees in a single body. I believe it would not be unjust to the other counties in that section to estimate that Butte has planted as many citrus trees as all the others combined, which would then make 309,000 trees or 8000 acres devoted to the culture of citrus fruits in that part of the State.

It is unnecessary that I should go into particulars regarding the planting of orange seed, the manner of growing the young trees, budding and grafting and other practical details of that kind. To one point I will, however, call particular attention. Hitherto, all the young trees—orange, lemon and olive—planted in that section have been brought from Florida or from Southern California; now there are vast numbers of young trees being raised, and the future planting will be done with these home-grown trees. In the vicinity of Oroville there are at least half a million young trees from one to four years old, and there are a large number of these trees at Palermo, Wyandotte, Marysville, Chico, Newcastle and other places that will ere long be set out in orchards, and thus will be largely extended citrus culture in that part of California.

## Markets.

The market for oranges is considered almost unlimited. On the north lie the great States of Oregon and Washington with a population of 600,000, while to the east lies a vast territory, a portion of which we may with confidence expect to supply with its citrus fruits. With these certain and ever-increasing markets in view, the prospect for growing oranges in Northern California is an alluring one. The profits of those who have bearing trees are such as to encourage others who have planted out young orchards and are now awaiting their coming into bearing. So flattering are these prospects that during the present year a ten-acre tract of two-year-old Washington Navel orange trees at Thermalito sold for \$650 an acre. Sales at Palermo have also been extremely flattering.

If the citrus-fruit outlook is now so attractive and brilliant, some may ask why this industry was not pushed ahead long ago, for orange trees have been in bearing in that part of the State for the past 80 years. May we ask in turn, are there no other latent and undeveloped resources left in that and other parts of our grand State? The olive flourished for four score years in Southern California ere the manufacture of olive oil by Mr. Cooper and others attracted general attention to that tree. Fig-growing as a commercial enterprise is a comparatively new one, yet it has been known for 40 years that the fig flourished in all our warmer valleys. Fifteen years ago California raisins were a rarity, while now our output is enormous and is rapidly increasing; yet the vine was known to flourish here in great perfection many years ere raisin-making became a business. Cork is worthy of attention here, is adapted to our soil and climate, and in Spain and Northern Africa immense fortunes have been made in cork, yet it is a neglected industry in our State. It is certain that money can be made here in producing camphor, and that tree grows readily in all the warmer parts of California, yet who thinks of planting camphor trees from which to make money? Why is it that we still import rhubarb from Europe when it can be so readily produced here? There is money in licorice, yet that is among the neglected industries of California. Our prune production has grown into a marvelous and gigantic enterprise, yet prune trees here in this State long ere the fruit in any quantity was put upon the market. Various reasons prevented the earlier planting of citrus fruits in Northern California upon a large scale, and one of these by too many has been overlooked.

The orange and lemon have been most successful along the low foothills, as in Butte, Yuba and Placer. The earth there is mostly a reddish clay soil mixed with gravel, and which requires considerable water to make productive. Nearly all the water for irrigation in those localities was brought from the mountains for mining purposes and was held at a high price. Now, until the general decline in mining, no man could afford to buy water for irrigating purposes, and from this cause more than any

other may be traced the lack of planting citrus-fruit trees. When mining declined the price of water was lowered, men saw that they could afford to experiment, and they began to increase the number of their citrus trees. Another reason was in the great expense in caring for an orange grove and bringing it into bearing. If the orange is king of fruits, it requires a royal revenue to pay the great expense during the time it is growing and coming into bearing. If to this we add the lack of knowledge regarding the cultivation of citrus fruits among the residents, and the further fact that many believed they could only be grown in sheltered and protected spots where the conditions were unusually favorable, the reason is fairly explained why citrus culture was not sooner begun upon an extensive scale.

The first citrus fair at Sacramento was the great awakening. When the fruit from 12 grand counties had been gathered and the productions compared, it was seen that citrus culture extended over a far broader area than people had heretofore realized. The moment this fact was fairly impressed upon the minds of the people, an almost instantaneous change was effected. It was like the traveler who emerges from the dark forest into the open sunlight of the broad valley, like the view presented from the top of a noble mountain when the earth grows at once tenfold larger than ever before. Vast and almost unlimited possibilities spread out before the inhabitants of that region, and some of these bright visions they set about converting into living realities. Nearly 300,000 orange, lemon and olive trees now growing as green and thrifty as they do upon Sicily's bright isle attest the faith and belief of the people of Northern California in citrus culture in the northern citrus belt. In the single colony of Thermalito there are 61 orchards, many of which are entirely of citrus fruits. In the colony of Palermo there are 65 orchards, containing 40,348 orange, 5112 lemon and 23,646 olive trees. Arrangements are already made to plant to citrus fruits 500 additional acres in that part of the State.

The essays, papers and discussions before this honorable body have always been of the most practical character. Facts relating to the best varieties of fruits, to the growth of the trees, to the methods of pruning, the various styles of packing and curing fruits, the destruction of insect pests and a hundred other useful points are yearly discussed. In presenting some facts upon citrus-fruit culture in Northern California, I cannot go into these details because this industry is yet immature and undeveloped. The citrus trees are free from scale except in one or two spots, the varieties planted are mostly those that experience in the southern part of the State has shown are most likely to be successful. The young trees in nearly all localities are grown without any kind of protection. But little attention has so far been paid to pruning, and no washes or sprays have been used except in the one or two spots where the trees have scale. There is none so far in Butte county, which is the leading section. In the matter of grading, packing and boxing citrus fruits, no new or novel ideas have been developed. I have only been able to present general facts to you without those practical and useful details that have made the meetings of this honorable body of such great value to all the fruit-growers of California.

That a grand future opens before the northern part of this State as a citrus-fruit region I am fully convinced, and ask your indulgence a moment longer, in presenting some figures that may be of interest. You are all aware that to grow citrus fruits successfully, three climatic conditions are necessary: First, that the annual average must not be too low; second, that the winter average must not be below 40 degrees; and third, that at no time during the winter must the cold be so great as to kill the trees. In order to present the claims of Northern California in a fair and candid manner, we have selected ten places in the citrus regions of Italy, ten in Southern California and ten in Northern California, and given the annual average, the average of winter and the lowest temperature of the winter. For convenience we have arranged these in tables.

## LOCALITIES IN ITALY.

	For Year.	For Winter.	Lowest.
Palermo.....	63°	53°	28°
Naples.....	61°	48°	23°
Rome.....	60°	48°	19°
Florence.....	58°	44°	12°
Pisa.....	63°	46°	26°
San Remo.....	63°	48°	25°
Genoa.....	63°	44°	10°
Mentone.....	61°	49°	23°
Nice.....	59°	46°	26°
Cannes.....	60°	49°	30°

The average of these ten places for the winter is 47.7 degrees, for the year 60.2 degrees, and the lowest temperatures run from 10 to 32 degrees.

## SOUTHERN CALIFORNIA.

	Av. Winter.	Av. Year.	Lowest.
Colton.....	52°	64°	20°
Daggett.....	47°	65°	20°
Santa Barbara.....	54°	61°	30°
Los Angeles.....	53°	60°	30°
San Diego.....	54°	60°	32°
Newhall.....	48°	60°	18°
Riverside.....	51°	60°	25°
Poway.....	50°	59°	21°
San Bernardino.....	49°	60°	21°
Spadra.....	54°	64°	28°

These figures give the average for winter at 50 degrees, for the year at 60.5 degrees, and the lowest temperatures run from 18 to 32 degrees.

## NORTHERN CALIFORNIA.

	Av. Winter.	Av. Year.	Lowest.
Auburn.....	46°	59°	18°
Chico.....	47°	64°	20°
Oroville.....	52°	65°	29°
Orland.....	52°	67°	26°
Williams.....	48°	63°	22°
Knight's Landing.....	48°	63°	20°
Sacramento.....	48°	62°	19°
Redding.....	48°	64°	24°
Red Bluff.....	47°	62°	22°
Marysville.....	50°	64°	24°

A recapitulation shows that the winter average for Europe is 47.7 degrees, for Southern California is 51.2, and for Northern California 48.6. The annual average for Europe is 60.5 degrees, for Southern California is 61.3, and for Northern California is 63.3. The lowest temperatures may be seen by inspecting the table.

These figures are taken from the best authorities and may be considered correct and reliable. Upon the evidence of the figures here presented we see no reason why even the most prejudiced should hesitate in believing that Northern California will become famous in time as a citrus-fruit region. We firmly, honestly and sincerely believe that in years to come its low foothills and extended valleys will become as noted for their fruit as its mountains have for their gold and its wide plains for their grain. It is true the Almighty Creator in His infinite wisdom has wisely withheld from man the ability to foresee the future with certainty and precision. The Elijahs and Jeremiahs of old are no longer with us. That Supreme Being has, however, given us, in thought, fancy and supposition, the power to rend aside the mystic veil that hides the morrow from to-day, and permitted us to picture to ourselves in the rosy hues of hope and anticipation what the coming years will bring to pass; and as we gaze with prophetic eye into the unnumbered cycles of time when the land we have attempted to describe shall be enriched by the labors of ourselves and our children, we behold that vast region teeming with millions of happy, prosperous and progressive people; a country made thrifty and productive by their enterprise and their energy; a land bright with fruits and gay with flowers; its foothill slopes covered with extensive, luxuriant and profitable olive orchards rivaling in extent and richness those of Italy and Greece; its broad and beautiful valleys dotted here and there with splendid groves of that noble tree,

"Laden with fairest fruit,  
Blossoms and fruit at once of golden hue;"

Its warm and sheltered nooks adorned with the continual blooming and ever-hearing lemon; far-spreading vineyards laden with grapes so large, sweet and delicious that none but California soil could have produced them. Magnificent fig trees lift their gigantic tops, filled with rich and luscious fruit. Lofty and towering date palms, of which the poet says:

"To man the palm is a gift divine,  
Wherein all uses of life combine—  
House and raiment and food and wine,"

Ornament the pleasing and fruitful landscape; and as we note the hill-slopes adorned with noble forests of chestnuts and walnuts, and the valleys green with vineyards and fair orchards—orchards of prune, pear, apricot and almond—orchards where

"Peaches glow 'neath sunny skies,  
Like maidens' cheeks when blushes rise"—

Orchards where  
"Pomegranates, rich and sweet,  
Show the print of the sunbeams' feet"—

Orchards where  
"On the grass land on the fallow  
Drop the apples red and yellow"—  
May we not apply the thought if not the exact words of the poet and say,

"This is the land of the orange and vine,  
Where the flowers ever blossom, the beams ever shine"—

A land so rich, hountiful and prolific in the most favored fruit for man's use that all within the borders of our grand and noble State will be proud of it; a region so promising, so hopeful, so assuring, and one in which we have such unbounded faith and confidence, that I would the power were given to us for a moment to sweep aside the dim, opaque and mysterious curtain that hides futurity and permit us to see Northern California in all her splendid and crowning glories as she is destined in reality to become.

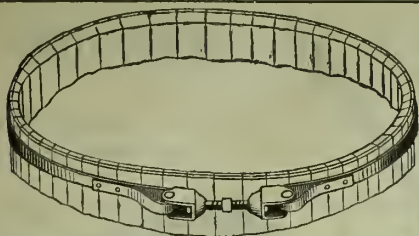
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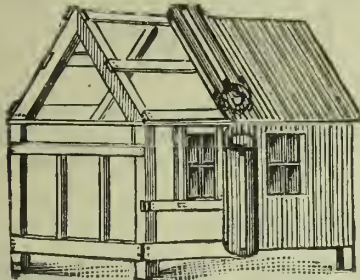


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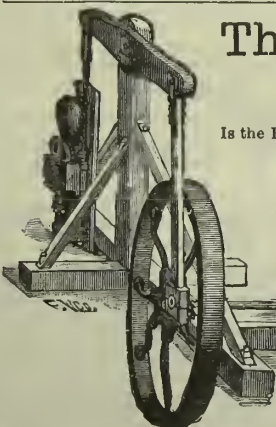
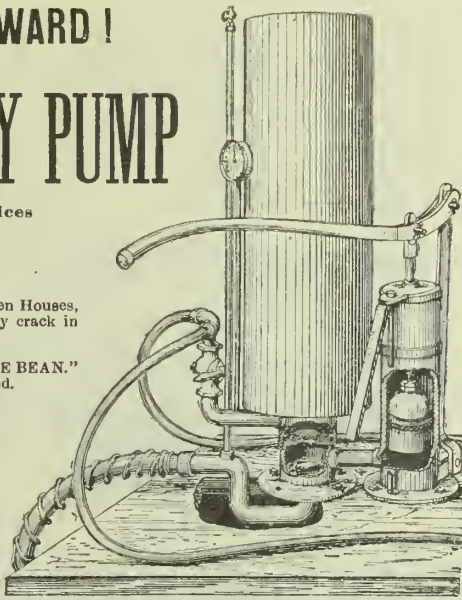
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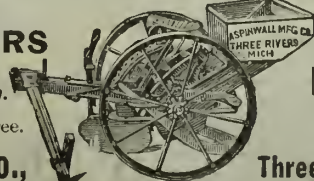
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## THE FIELD.

## Take Care of the Manure-Pile.

EDITORS PRESS:—It has been determined by actual experiment that nearly one-half of the fertilizing properties of horse manure pass away if the manure-pile is exposed so that any considerable amount of leaching takes place. If this is true in a locality where there is only an occasional shower, how much more so must it be true along the Pacific Coast during the rainy season.

Not only are the manure-piles in the open yard, but more often they are located where eaves run down upon them or upon a hillside, so that the liquid that escapes can run away with little hindrance.

The time is not far distant when the farmers along this coast will appreciate the value of barnyard manure as highly as the farmers of the Eastern States.

Farmers use too little litter in the stables. In a land of such an abundance of straw, why not give the stock a good, clean, dry bed, and at the same time convert the straw into a valuable adjunct for larger and easier productions?

A manure shed can be made a convenient shelter for young stock, and tools may be run under the shed for protection from the continuous damp weather and rain during the wet season.

When the horse manure and that from the cow stable is mixed and well put up in square heaps, there is less loss than from either when alone. Prof. Roberts of the New York Experiment Station carried on an experiment which indicated that there was little loss when the manure was thoroughly dried by exposure to the sun without allowing the rain to fall upon it.

Another practice which to my notion is wholly impracticable is the method of leaving the manure in small heaps in the field before spreading. It does not require any more time to spread the manure direct from the wagon than to unload it in piles and spread it afterward. This practice is followed no doubt with the idea that the manure will lose its fertilizing properties if not plowed under immediately.

The loss by escaping into the air is not, if there is any at all, so great as the loss from leaching in these piles and the loss from an uneven distribution of the litter over the ground. Where a pile of manure stands for any length of time, especially if there have been several good showers upon it, the crop following will show the presence of more fertilizing elements than on the surrounding portions of the field. If it is a wheat crop, the spots can be seen a long distance, and the wheat will not fill on these spots as well as where the straw does not get so much stimulant; spread the manure and let the showers take the fertilizing elements, evenly distributed, into the soil, where they will be retained for the needs of the succeeding crop.

Some one has said that the manure-pile is the pivot of successful farm operations. Certain it is that the management of this important factor will determine largely our successes or failures, our profits or losses.

H. T. FRENCH.

Corvallis Or., Dec 18th

## A Substitute for the Potato.

Albert Meyer, a chemist, while in conversation, recently, with the editor of the St. Paul Globe, spoke quite enthusiastically of a new tuberiferous plant which he thought would do exceedingly well if introduced in the Northwestern States. He said:

A few years ago a scientist discovered in Japan a plant resembling the potato, and sent samples of it to Berlin and Paris to be experimented on. These experiments have been decided successes, and the new potato has been extensively introduced in Berlin and Paris, especially in hotels and restaurants. A number of farmers in our vicinity, with whom I conversed on the subject, are willing to experiment on the plant next season. The Royal Prussian Society of Berlin has taken pains to make experiments with the plant. The scientific name of this plant is *Stachys tuberifera*, but as to their form they might be called pine cones. *Stachys affinis* is another name, and lately they have given it the name *Stachys Sieboldii*. The cultivation is the same as the potato, and there have been found over 100 knolls in one hill; some say as many as 300, but this is probably exaggerated. They are, of course, not as large as our common potato. According to the *Garden Flora*, the organ of the society, the analysis of the fruit is:

Water.....	73.33
Protein.....	1.50
Amide.....	1.67
Fat.....	0.18
Carbon hydrate (Principi galactan).....	16.57
Cellulose.....	0.73
Ashes.....	1.03

There is neither starch nor sugar, but galactan, a substance between both. *Stachys affinis* or tuberifera is an agreeable tasting vegetable when hotted in salt water and served with butter and parsley sauce. Some people like them seethed in oil, but that is merely a matter of taste. Prepared like *pommes de terre frites* (potatoes cut in small slices and fried in butter), they are claimed to be a delicious dish. The

taste is at first like that of a sweet potato, but one will soon feel a very fine piquant taste. They do not need to be peeled, but are only washed clean in water, which is another blessing to the housekeeper. They are kept in the ground as late as possible, and preserved packed in sand in the cellar during the winter months.

Exposed to the air, they will shrink and lose their nice, white mother-of-pearl-like color. The plant is winter-hardy, and thrives in any soil. Frost does not hurt them, and to have them always fresh, they are left in the ground and dug as wanted. In our climate it is best to keep them in a ditch or in sand in the cellar. W. Perring, Inspector of the Royal Botanical Garden in Berlin, informs me that the production is very large, and that there are many enthusiasts in favor of the new plant in that city, which prophesies for the plant a great future. The expectations of high prices and large yields will induce a good many farmers to make a trial with the new plant. I have already quite a number of orders for seed.

McBEAN & Co. of San Francisco have obtained the contract to construct the sewage system of Victoria, B. C. The contract price is \$245,970.

## Cough-Cures

Are abundant; but the one best known for its extraordinary anodyne and expectorant qualities is Ayer's Cherry Pectoral. For nearly half a century this preparation has been in greater demand than any other remedy for colds, coughs, bronchitis, and pulmonary complaints in general.

"I suffered for more than eight months from a severe cough accompanied with hemorrhage of the lungs and the expectoration of matter. The physicians gave me up, but my druggist prevailed on me to try

## Ayer's Cherry Pectoral.

It did so, and soon began to improve; my lungs healed, the cough ceased, and I became stouter and healthier than I have ever been before. I would suggest that the name of Ayer's Cherry Pectoral be changed to Elixir of Life, for it certainly saved my life."

—F. J. Olden, Salto, Buenos Ayres.  
"A few years ago I took a very bad cold, which settled on my lungs. I had night sweats, a racking cough, and great soreness. My doctor's medicine did me no good. I tried many remedies, but received no benefit; everybody despaired of my recovery. I was advised to use Ayer's Cherry Pectoral, and, as a last resort, did so. From the first dose I obtained relief, and, after using two bottles of it, was completely restored to health."—F. Adams, New Gretna, N. J.

## Ayer's Cherry Pectoral,

PREPARED BY

Dr. J. C. AYER & CO., Lowell, Mass.  
Sold by all Druggists. Price \$1; six bottles, \$5.

## KNABE PIANOS.

UNEQUALED IN

Tone, Touch, Workmanship and Durability.  
BALTIMORE, 22 and 24 East Baltimore Street,  
New York, 148 Fifth Ave. Washington, 817 Market Space.

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GEO. M. MITCHELL, W. R. SMEDBERG—314 California Street, San Francisco. Managers San Francisco Department New Zealand F. and M. Insurance Co., Auckland; Orient Insurance Co., Hartford. City Agents Manchester Fire Insurance Co., Manchester; Caledonian Insurance Co., Edinburgh; American Insurance Co., Newark, N. J.

## THE SUCCESS TRAP

Will hold Animals from a Gopher to a Coyote.  
Price for 30 days, postpaid, 25 cents. One dozen, \$2.00.

SUCCESS TRAP CO., Stockton, Cal.

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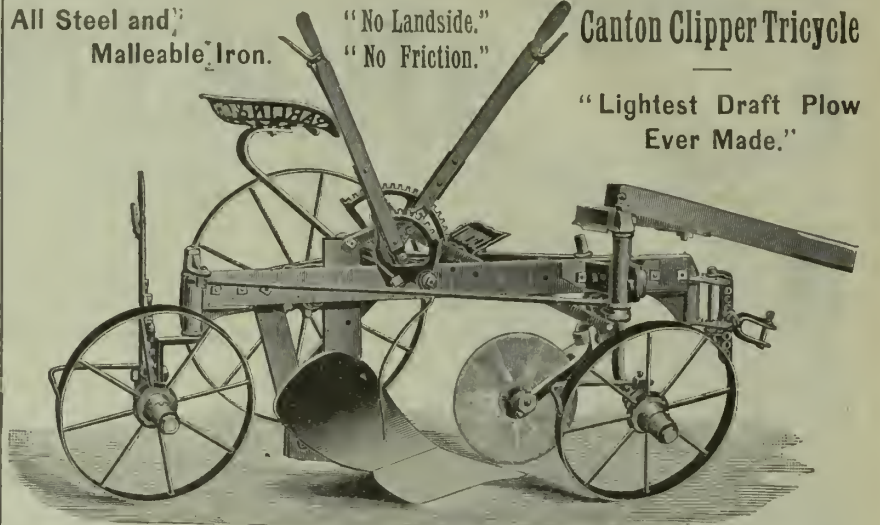
A. L. BANCROFT & CO  
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Wholesale and Retail Dealer in

HARNESS, SADDLES, BRIDLES, WHIPS, SPURS, BLANKETS,  
No. 10 Bush Street, and Market Street, one door below Battery Street, San Francisco.

DOUBLE Breech-Loader \$7.75.  
RIFLES \$2.00  
PISTOLS 75c  
All kinds cheaper than elsewhere. Before you buy, send stamp for Catalogue. Address POWELL & CLEMENT, 140 Main Street, Cincinnati, Ohio.



## SIMPLICITY AND PERFECTION ARE COMBINED IN THE TRICYCLE PLOWS.

The above is no idle boast, but actual facts determined by thorough, severe and practical tests plowing from 6 to 15 inches deep.

Sent to any responsible farmer on trial, and if not found as represented, can be returned at our expense.

Pacific Coast Agents:

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AMERICAN AND FOREIGN PATENT SOLICITORS  
ESTABLISHED 1860.  
OFFICE OF THE "Mining and Scientific Press" Pacific Rural Press  
No. 220 Market St.  
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**BUSINESS INSTITUTE**  
STOCKTON COLLEGE  
TEACHING BUSINESS  
FURNISHED ROOM, \$3 per Month.  
EXCELLENT BOARD, \$10 per Month.

Occupies two elegant buildings, containing over 70 rooms. Employs the ablest teachers, has the largest attendance and is the most highly recommended of any private school on the Pacific Coast. Board, Room and Tuition for six months, \$125. Board, Room and Tuition for fifty-two weeks, \$244.

Circulars containing Rules, Rates of Tuition and Board, and Courses of Study sent free to any address; also, beautiful specimens of Penmanship. Address,

TRASK & RAMSEY, Stockton, Cal.

## BEET SUGAR FACTORIES

**E. H. DYER & CO.,**  
Sugar Chemists, Enigneers and Draughtsmen, and Practical Manufacturers of Beet Sugar.  
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The members of this firm have spent many months in the largest beet sugar factories of Europe, studying the details of German and French methods of manufacturing sugar from beets, and also at works of the leading manufacturers of beet sugar machinery. Having had many years' experience in manufacturing sugar from beets in California, and having fully demonstrated the feasibility of producing sugar from beets in this country in almost unlimited quantities, and in successful competition with cane sugar imported from foreign countries, we are prepared to furnish designs for factories, plans and drawings of the latest improved machinery now in use in Europe and this country. Can also furnish skilled engineers to superintend the construction of factories, and the necessary technical skill to operate the works successfully when completed. Will make personal examination of localities with regard to their fitness for the production of beet sugar, free of expense, except traveling expenses. Successful results guaranteed when the conditions are considered favorable.

## "P. &amp; B." PATENT IDEAL ROOFING &amp; PRESERVATIVE COMPOUND.

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PRESERVATIVE COMPOUNDS FOR WOOD, IRON OR METAL.  
Acid and Alkali-Proof.

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Water-Proof and Odorless. No Dearer than Common Sheathing.

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116 BATTERY STREET, SAN FRANCISCO.



# THE "TRIUMPH" — ALL METAL — SPADING HARROW!

The Best Pulverizer in the World.

JUST THE THING

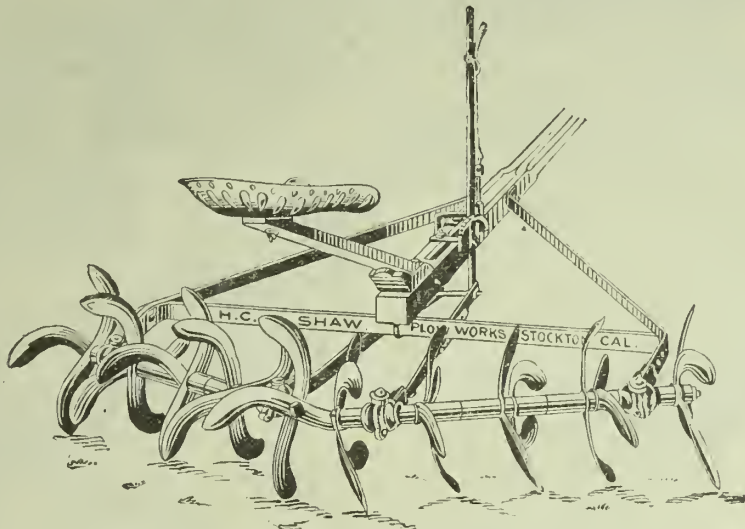
Specially Adapted

— FOR WORKING —

— FOR —

Summer Fallow Land.

ORCHARDS AND VINEYARDS.



FOR TWO HORSES. Works the soil about six feet wide. Angle of teeth adjustable to work the soil at desired depth. THIS HARROW is something entirely new. IT IS THE GRANDEST ACHIEVEMENT of its inventor, C. LA DOW, who is the recognized authority on Harrows, there being but few leading harrows at the present time not built under his patents. We have made exclusive arrangements for its sale and it can be obtained only through us or our agents.

THE NAME "SPADING" refers to its action on the soil. The action of each cutter is like that of a small spade, lifting and turning the soil from a depth of four to six inches, doing more perfect work than is possible with any other Harrow in the world. THE BLADES are made from spring steel, in operation vibrating and shaking off sticky soil. IT NEEDS NO SCRAPERS to clean the revolving cutters.

Considering the immense amount of labor done, the draft is very light, as the pulverized soil passes through the gangs of revolving cutters, being left smooth. THE GANGS are so arranged that the most uneven ground is thoroughly harrowed and left level. IT LEAVES NO FURROW or ridge; when the field is harrowed it is all left smooth. 10, 12 and 14-ft. sizes in stock. Send for circular.

**H. C. SHAW FLOW WORKS,**  
STOCKTON, CAL.

WHEN YOU BUY, SPRAY PUMPS!

— BUY —

THE BEST!

— THE —

**H. H. H.**  
Horse Liniment

Is certainly the best preparation of its kind in the market. Ranchers, Stock Raisers and Horse Owners of every description will tell you that it does good work every time.

MESRS. H. H. MOORE & SONS, Stockton, Cal.—GENTLEMEN: In answer to your inquiry, would state that I used your H. H. H. Liniment on my Holland prize-winning cow, "Lena Menio," for a wrenched shoulder, and it relieved her very much. She calved the next day, and while still suffering from the sprain gave the largest authenticated quantity of milk ever given on this coast (10½ gallons per day), showing conclusively the great relief received from your remedy. I consider it a necessity in my stables, and when away from home feel perfectly safe, as inexperienced men can do no harm with it, as they can with the more powerful blisters. Respectfully yours,  
FRANK H. BURKE,  
Breeder of Registered Holsteins and Berkshires.  
Menlo Park, Cal., January 22d, 1889.

MANUFACTURED BY

**H. H. MOORE & SONS,**  
THE DRUGGISTS,

248 MAIN STREET, STOCKTON, CAL.

J. L. HEALD, Pres. C. B. MORGAN, Sec'y.

**HEALD MFG. CO.**

Crockett, Contra Costa Co., Cal.

Stationary Engines and Boilers,

TRACTION ENGINES,

Portable Straw-Burning Boilers & Engines.

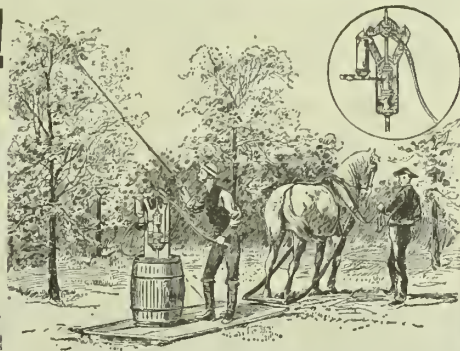
IRON AND BRASS CASTINGS.

Machinery of all kinds furnished at shortest notice.

Heald's Patent Wine-making Machinery,  
including Grape Crushers and Stemmers, Elevators  
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Wine Cellars. Irrigating and Drainage Pumps Heald's  
Patent Engine Governor, Etc.



Star Spray Pump.



The Goulds Spray Pump.

WITH BAMBOO EXTENSION ALL FITTED UP, COMPLETE WITH HOSE, BARREL AND SPRAY NOZZLE. These cuts show in faithful operation our Gould's and Star Spray Pumps. They are utilized for spraying Fruit Trees, Orange Groves, Vines, and in fact, all trees or shrubbery infested with the destructive insects which infest and do so much injury to Orchards, Vineyards, Orange Groves, etc. They are made entirely of brass, with the exception of frame and handle, and are strong and heavy; the valves being made entirely of metal or rubber, and will not be affected by the corrosive solutions such as Caustic Soda Acids, Lye, or any other solution that may be used to kill the destructive insect. Send for Special Circular and Prices of Spray Pumps. **NOTICE.**—ONGERTH'S LIQUID TREE PROTECTOR is the best Spray for killing Red Scale, Black Scale, White Cushion Cottony Scale, San Jose Scale, or any other insect. Send for Special Circular.

**WOODIN & LITTLE,**

312 & 314 Market Street, junction of Bush,

SAN FRANCISCO, CAL.

**THE BLUE RIBBON CART, WITH PHAETON BODY.**

**\$35**

Has a seat wide enough for two, with box underneath for parcels. The body has been lengthened, is securely framed and strengthened by making the panels in one piece. Sarven wheels, steel axles, and curved dash. Finished in scarlet lake or brewster green. The "Blue Ribbon" has proved to be the best built, most popular and best selling low-priced Phaeton Cart ever brought to this market. With Patent Spiral Spring Lazy Back. Shipped securely crated. Weight, 175 pounds.

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**CLARK'S CUTAWAY HARROW**  
SUPERSEDES THE PLOW  
Makes a  
PERFECT SEED BED.  
Send for SPECIAL CIRCULAR.

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**GRANGERS' BANK**

OF CALIFORNIA,  
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INCORPORATED APRIL, 1874.



Authorized Capital.....\$1,000,000  
Capital paid up and Reserve Fund 800,000  
Dividends paid to Stockholders.. 627,500

OFFICERS.

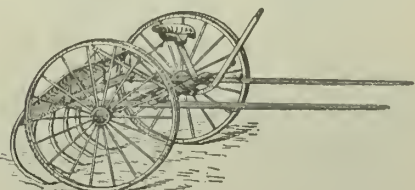
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General Banking. Deposits received, Gold and Silver.  
Bills of Exchange bought and sold. Loans on Wheat  
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July 1, 1889.

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VINE PRUNERS, ATTENTION!



Use **E. M. T. Hilgard's**  
**GRAPE BRUSH RAKE,**

With which one horse and a boy can do the work of eight or ten men in gathering and bunching the prunings ready for loading on wagon. Its cost will be saved in one season's work on 65 acres of vines. Address TRUMAN, HOOKER & CO., 427 Market Street, San Francisco.

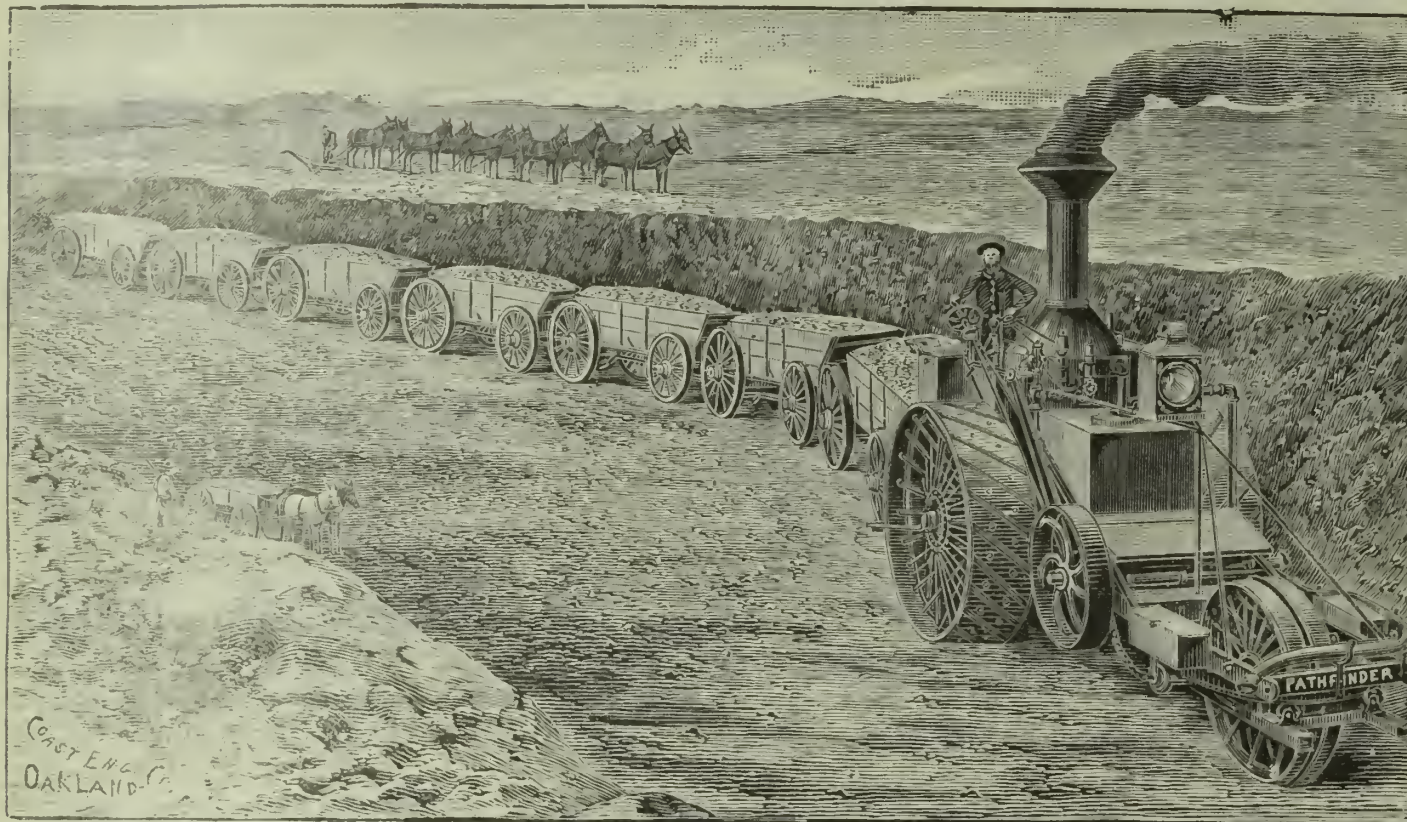
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BEST'S TRACTION ENGINE HAULING GRAVEL IN SACRAMENTO.

THE ACCOMPANYING CUT  
Is from a photograph taken while at  
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**It is Cheaper and More  
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One Traction Engine will do the  
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Best's Traction Engines have been  
in practical use for over two years,  
hauling coal, lumber, gravel and  
grain, one of which is now hauling  
cane in the Sandwich Islands.

**It will do the work of  
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Plowing reduced to a minimum  
cost, and from 35 to 45 acres plowed  
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Three sizes built, 30, 40 and 50-  
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**24 Best Traction Engines  
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It hauls the Gang Plow and Har-  
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Steam Harvester and moves along  
majestically with a train of wagons  
loaded with grain for the warehouse.

**GOLD MEDAL**

Awarded the Best Traction Engine  
by the State Agricultural Society at  
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## BEST'S TRACTION ENGINE

IS "THE BOSS OF THE ROAD" AND "THE MONARCH OF THE FIELD."

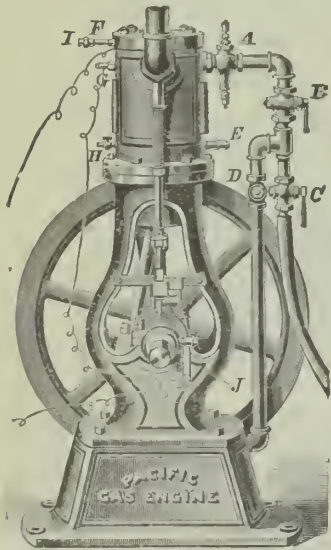
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## THE PACIFIC GAS OR GASOLINE ENGINE.

Patented June 17, 1890 - Nos. 430,504, 430,505, 430,506—also in Great Britain and Other Foreign Countries.



**Starts Instantly Without the Necessity of Boiler, Fire  
or Experienced Engineer.**

**OVER 150 IN ACTUAL OPERATION.**

The Engine uses from 20 to 25 feet of Coal Gas, or  
about one-eighth of a gallon of Gasoline, per hour per  
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purposes requiring cheap and convenient power. Persons  
having but little space will find this the most suitable of  
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### USE IN BOATS.

The Company makes a Specialty of  
**ENGINES FOR SMALL BOATS AND LAUNCHES.**

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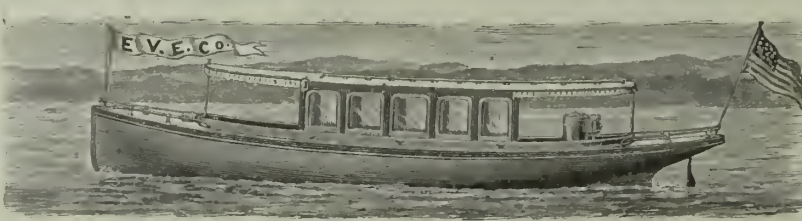
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Send for Circular and Price List.



### Cheaper Than Windmills for Farmers!

Our Perfected "Safety" Engines Cost to Run only 1-8 Gallon of Gasoline per Horsepower per Hour.

—NO—  
Boiler,  
Fire,  
Smoke,  
Steam,  
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No  
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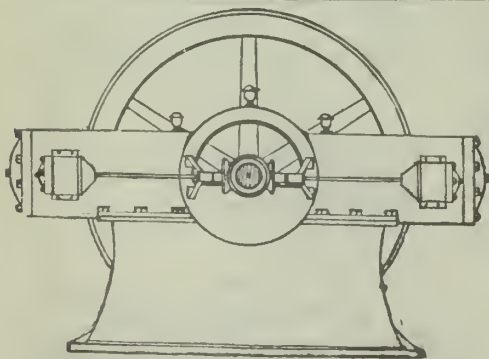
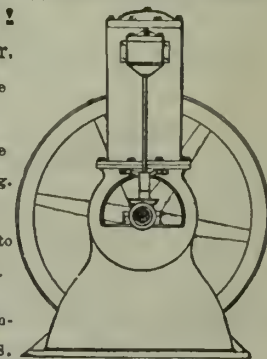


Single  
and  
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Acting.  
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1/2 H. P. to  
20 H. P.

Pumping Plants, Yachts & Launches,  
Street Cars, Fire Engines, Water  
Works, Etc.

**ELECTRIC VAPOR ENGINE CO.**  
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Complete Plants of all kinds, Station-  
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### BEST TREE WASH.

"Greenbank" 93 degrees **POWDERED CAUS-  
TIC SODA** (tests 99.3-10 per cent) recommended by  
the highest authorities in the State. Also Common  
Caustic Soda and Potash, etc., for sale by

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104 Market St. and 8 California St., S. F.

### H. N. COOK,

— MANUFACTURER OF —

**LEATHER BELTING, LACING**

**AND HOSE.**

NO. 32 1/2 FREMONT ST.,  
SAN FRANCISCO.

{ A Specialty of Agricultural  
Drapers and Carriers.



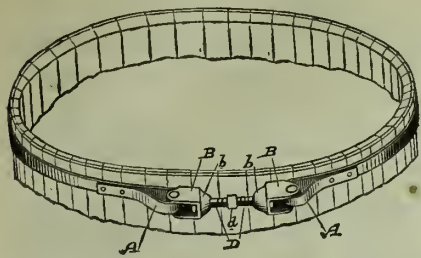
### The Armstrong Automatic PORTABLE ENGINE and BOILER.

The Best, Lightest, Cheapest  
Engine in the world. Can be  
arranged to Burn Wood, Coal,  
Straw or Petroleum. 5 or 8 H. P.  
Mounted on skids or on wheels.

**TRUMAN, HOOKER & CO., San Francisco.**



Patent Hoop-Clamp for Tanks.



F. O. 1.



F. G. 2.

The accompanying cut shows a device, the practical efficiency of which has been proven.

A in Fig. 1 are the hoop ends, which are looped around the cylinder outer ends of the heads B. The inner or adjacent ends of these heads are formed with hemispherical seats b, and in these are fitted hemispherical nuts at liberty to move in their seats. D is the adjusting or tightening bolt of the clamp, having one end provided with a right-hand thread and the other end with a left-hand thread, and at the center with a collar or wrench-hole, d. The threaded ends of this bolt pass freely through elongated apertures in the seats of the head and are connected with the hemispherical nuts in the sockets. An enlarged view is shown in Fig. 2.

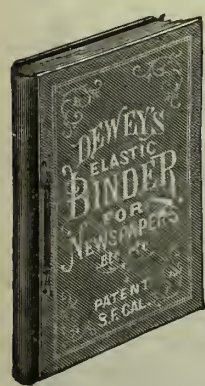
The operation of the clamp is as follows: The ends of the hoops are looped around the heads as shown and then a wrench is applied to the central collar, d, of the tightening bolt. The bolt is turned and as its reverse threaded ends work in and through their respective nuts the heads are drawn together, thereby tightening the hoop. The strain being in a curve, deflects the heads from a straight line, the hemispherical nuts through which the bolt passes turning in their hemispherical seats in the proper direction to enable the clamp to conform itself to the curvature of the hoop, thereby exerting its strength in the line of said curve instead of in a straight line tangential to it. As before mentioned, the nuts will remain steady in the direction of rotation of the bolt.

This invention supplies a great want, particularly in dry and hot climates, where shrinkage of lumber is considerable. No device heretofore in use for the purpose of tightening hoops has been satisfactory, for the reason that the draft was not straight and therefore not direct on the hoops. The advantage of a clamp hoop over a riveted hoop, particularly in heavy tank work, must be apparent to all. To tighten a riveted hoop requires tools, scaffolding and capable men. It also mars the paint and injures the iron. To tighten with a clamp, working freely, requires simply a ladder and a wrench in the hands of anybody.

Clamp bands are convenient in transportation; heavy bands for large tanks can be handled in sections without folding. Mechanically considered, the device may be described as a right and left draw buckle, acting on ball and socket joints. It therefore works equally free, powerfully and effectually on long or short draft and on large or small circles.

The device has proved a great success and is now being used extensively in the tank-building department of Wells, Russell & Co., Mechanics Mills, cor. Mission and Fremont Sts., S. F.

To Subscribers and Readers.



A HANDY PAPER BINDER.—A. T. Dewey's patent elastic binder, for periodicals, music and other printed sheets, is the handiest, and very cheapest of all economical and practical file binders. Newspapers are quickly placed in it (as received) and held neatly, as in a cloth-bound book. It is durable, and so simple a child can use it. Price (size of this paper, Harper's Weekly, and Scientific American), 75 cents; postage 10 cents. Postpaid to purchasers of this paper, 50 cents. For sale at this office. Send for illustrated circular. Agents wanted.

NEBRASKA SEEDS.—Our readers who desire to experiment with seeds from another climate may be interested in the advertisement of Monk & Hupert of Greenwood, Cass Co., Nebraska. We have received their catalogue for 1890, in which we see notice of a new muskmelon, the Persian Monarch, which the catalogue says is called the "Shah" in Persia, and was introduced in 1889 by Johnson & Stokes. It is said to be "unapproached by any other, either American or foreign, in delicious flavor, wonderful productiveness, hardiness and distinctive appearance." Monk & Hupert announce that their catalogue for 1891 will be ready in a few days, and it will no doubt be sent to those who desire it.

Harness.

Mr. C. L. Haskell, No. 10 Bush St., wholesale and retail dealer in harness, saddlery, etc., has one of the largest stocks of goods in his line in San Francisco. He makes a specialty of manufacturing team and buggy harness and has gained a high reputation as a reliable dealer and skillful manufacturer. Anything in the way of horse clothing, boots, whips for the farmer, ranchman or horse-breeder can be had at his store, No. 10 Bush St., at bottom prices.

List of U. S. Patents for Pacific Coast Inventors.

Reported by Dewey & Co., Pioneer Patent Solicitors for Pacific Coast.

- FOR THE WEEK ENDING DEC. 30, 1890.  
443,739.—PIN-CUSHION—G. F. Atkinson, S. F.  
443,897.—PROTECTING PILES—James Clark, Tacoma, Wash.  
443,898.—DISINTEGRATING SLAG—James Colquhoun, Clifton, A. T.  
443,901.—SEPARATING AND GRADING ORES—E. L. Craig, S. F.  
443,650.—CLEVIS—John Duncan, Shedd's, Or.  
443,641.—WIND ENGINE—Geo. S. Eastman, S. F.  
443,827.—SEA-WATER STORAGE TANK—John Farnham, S. F.  
443,644.—ELEVATOR VALVE—C. I. Hall, S. F.  
443,942.—MATCH-BOX AND CIGAR PUNCH—Emil Heinrich, Sacramento.  
443,648.—STRAW-DUMP ATTACHMENT FOR HARVESTERS—Alex. McDonald, Franklin, Cal.  
443,836.—CONCENTRATOR—J. H. Miller, San Jose, Cal.  
443,545.—DEVICE FOR INJECTING POWDERS—W. H. Rowland, Albany, Or.  
443,800.—EXTENSION LADDER—J. P. Smale, Pasadena, Cal.  
443,878.—PESSARY—C. P. Tatro, Spokane Falls, Wash.  
443,806.—MACHINE FOR POINTING FENCE PICKETS—J. M. Vance, Eureka, Cal.  
443,734.—LAWN SPRINKLER—D. C. Wilgus, Los Angeles, Cal.  
443,808.—PETROLEUM BURNER—D. C. Wilgus, Los Angeles, Cal.  
443,639.—NEEDLE FOR GRAIN BINDERS—T. C. Wilkin, Independence, Or.  
443,558.—STREET-SWEEPER—J. A. Wilt, Eureka, Cal.  
443,702.—PNEUMATIC DOOR CHECK AND SPRING—F. J. Wood, Los Angeles, Cal.  
NOTE.—Copies of U. S. and Foreign patents furnished by Dewey & Co., in the shortest time possible (by mail or telegraphic order). American and Foreign patents obtained, and general patent business for Pacific Coast Inventors transacted with perfect security, at reasonable rates, and in the shortest possible time.

Skillman's Late Importation of Norman, Suffolk and Shire Horses.

[Written for the RURAL PRESS by J. C. H.]

A RURAL representative made a visit last week to the "Red Stable," East Petaluma and Magnolia Stock Farm near Petaluma, to see the horses lately imported by Mr. Skillman. Of this lot of Normans are Lignett 13810, a dark dapple-gray, foaled at Nogent-le-Rotrou, France, May 9, 1887, a very fine colt. Raglan 14739 was foaled April 1, 1885, at Orne, France, weighs 1800 pounds, and sold to Mr. Blondin of Livermore. Snperhe is a dark dapple-gray, stands 17 hands high, foaled March 5, 1885, at Normandie, France, and registered in Stud-book of Stallions, Paris, France. He is what his name indicates, superb, and is considered by expert horsemen one of the grandest stallions ever imported.

The Suffolk Punch horses include Winston 1997, bred at Woodbridge, England, took all first prizes, and was never beaten in the show ring. He has been sold at a long price to Hiram Corey of Salinas City, Monterey county. Gipsev Girl 2473 is a Suffolk Punch mare foaled in 1888 at Guilford, England, and sold to Hiram Corey. Ohilestord Duke 2d 1769, bred at Chilesford, England, 17½ hands high and foaled in 1887. A photo-engraving of this grand horse, with a fuller description, will appear in the RURAL soon.

Hero 1871, foaled in 1886 and recorded in Vol. 4, Suffolk Stud-Book. This horse won high mention at every place he was shown.

Among the Shire horses is Connt Counsellor 2340; will weigh at maturity 1800, and now at two years of age turns the scale at 1600 pounds.

Good Enough, a fine specimen of a draft horse, rare bone and muscular development, sold to Hiram Corey of Salinas City.

Mr. Skillman has three fine French coach stallions imported in 1889, together with a number of Normans at Magnolia Stock Farm. His importation this year is rated by good judges the best that has ever been made during any year since he has started in this great enterprise and which covers a period of ten years. Mr. Skillman has been one of the largest importers of high-class draft horses on the Pacific Coast, and the importance and material benefit to our State can hardly be realized until the coming years shall demonstrate the improvement in this class of horses.

A fine illustrated catalogue has been issued by Mr. Skillman giving a full and detailed description of the history of the different classes of horses he has selected, together with their pedigrees and breeding. There has been a large number of visitors from all parts of the State to see this notable importation, and of the lot it is considered safe to say that five have been sold to prominent breeders. His persistent effort and skill in selecting animals has given him a widespread notoriety as a sagacious and reliable dealer.



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1891	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	1891	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
Jan...	1	2	3	4	5	6	7	July...	1	2	3	4	5	6	7
Feb...	1	2	3	4	5	6	7	Aug...	1	2	3	4	5	6	7
March...	1	2	3	4	5	6	7	Sept...	1	2	3	4	5	6	7
April...	1	2	3	4	5	6	7	Oct...	1	2	3	4	5	6	7
May...	1	2	3	4	5	6	7	Nov...	1	2	3	4	5	6	7
June...	1	2	3	4	5	6	7	Dec...	1	2	3	4	5	6	7



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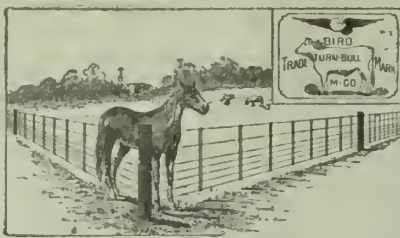
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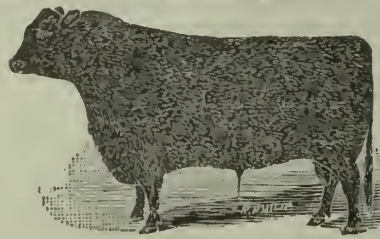
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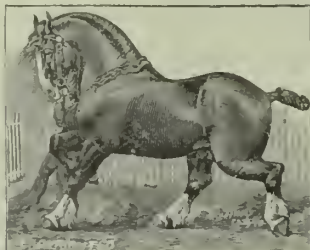
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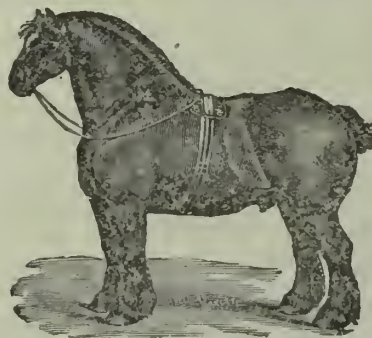
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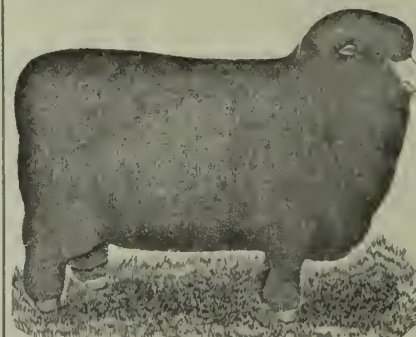
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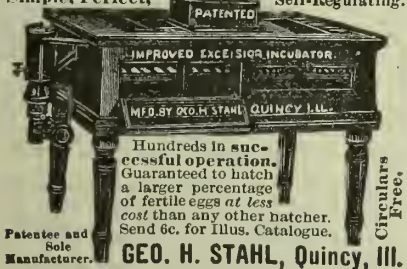
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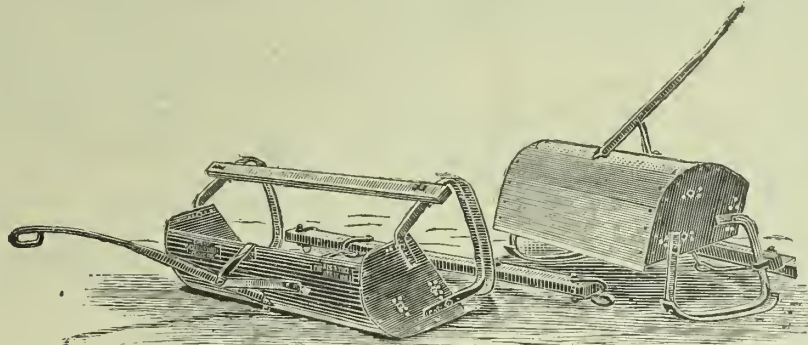
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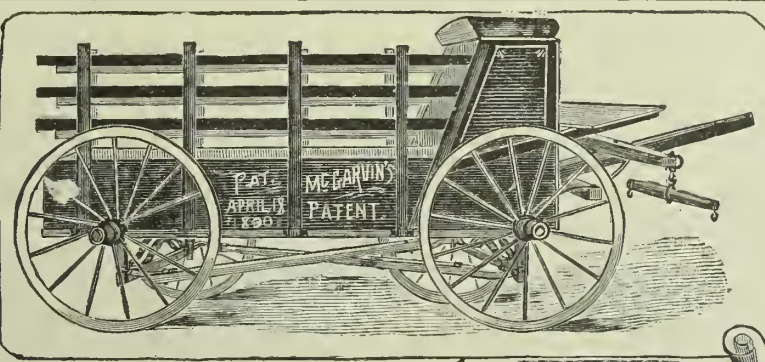
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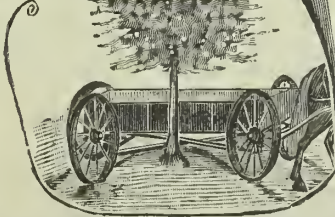
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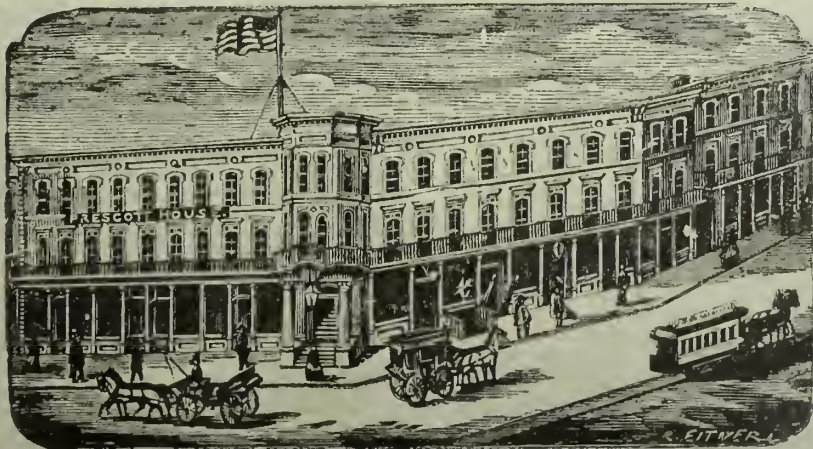
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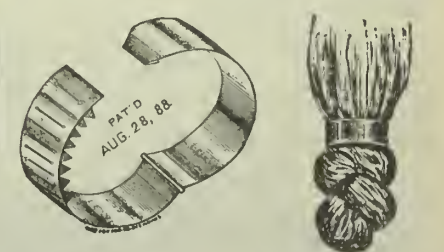
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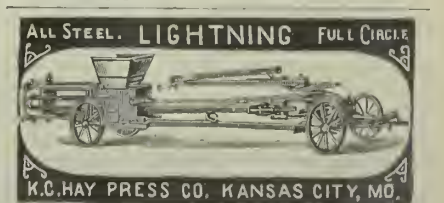
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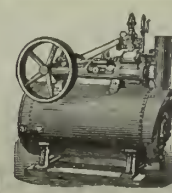
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## S. H. MARKET REPORT

## Market Review.

## DOMESTIC PRODUCE, ETC.

SAN FRANCISCO, Jan. 7, 1891.

Rains followed by clearing weather have imparted a more cheerful feeling to the trade, which is supplemented by a feeling of greater confidence in the future, due to a greater acreage seeded to wheat, more tree and vine planting and more attention to other farm industries, and also to all information going to show that money will be fairly easy. Trading in farm products is still light. The Eastern wheat markets after advancing fell back slightly. Foreign wheat markets fluctuated to stronger prices. The following is to-day's cablegram:

LIVERPOOL, Jan. 7.—Wheat—Firmly held. California spot lots, 75 5/8d to 75 9d; cargoes off coast, 38s 9d; just shipped, 38s; nearly due, 38s 6d; cargoes off coast, firm, on passage, quiet but firm; Mark Lane wheat, firm; English and French country markets, firm; wheat and flour in Paris, steady; weather in England, hard frost.

## Foreign Grain Review.

LONDON, Jan. 5.—The *Mark Lane Express*, in its review of the British grain trade, says: The market has been a little better since the new year, but the effects of frost have not been as embracing as holders had hoped. In English wheat, prices are well maintained. Foreign wheat shows some signs of a better feeling, but no advance is quoted. Maize is id dearer. Oats advanced 3d.

## Liverpool Wheat Market.

The following are the closing prices paid for wheat options per cwt. for the past week:

	Jan.	Feb.	Mar.	April.	May.	June.
Thursday.....	78 1/2d	78 1/2d	78 1/2d	78 1/2d	78 1/2d	78 1/2d
Friday.....	78 1/2d	78 1/2d	78 1/2d	78 1/2d	78 1/2d	78 1/2d
Saturday.....	78 1/2d	78 1/2d	78 1/2d	78 1/2d	78 1/2d	78 1/2d
Monday.....	78 1/2d	78 1/2d	78 1/2d	78 1/2d	78 1/2d	78 1/2d
Tuesday.....	78 1/2d	78 1/2d	78 1/2d	78 1/2d	78 1/2d	78 1/2d

The following are the prices for California cargoes for off coast, nearly due and prompt shipments for the past week:

	O. C.	P. S.	N. D.	Market.
Thursday.....	38 1/2d	38 1/2d	38 1/2d	Advancing.
Friday.....	38 1/2d	38 1/2d	38 1/2d	Quiet.
Saturday.....	38 1/2d	38 1/2d	38 1/2d	Strong.
Monday.....	38 1/2d	38 1/2d	38 1/2d	Firm.
Tuesday.....	38 1/2d	38 1/2d	38 1/2d	

## Eastern Grain Markets.

The following shows the closing prices of wheat at New York for the past week, per bushel:

	Jan.	Feb.	Mar.	April.	May.	July.
Thursday.....	103 1/2	104 1/2	104 1/2	104 1/2	104 1/2	104 1/2
Friday.....	103 1/2	104 1/2	104 1/2	104 1/2	104 1/2	104 1/2
Saturday.....	103 1/2	104 1/2	104 1/2	104 1/2	104 1/2	104 1/2
Monday.....	103 1/2	104 1/2	104 1/2	104 1/2	104 1/2	104 1/2
Tuesday.....	103 1/2	104 1/2	104 1/2	104 1/2	104 1/2	104 1/2

The closing prices for wheat have been as follows at Chicago for the past week, per bushel:

	Jan.	Feb.	Mar.	April.	May.	July.
Thursday.....	103 1/2	104 1/2	104 1/2	104 1/2	104 1/2	104 1/2
Friday.....	103 1/2	104 1/2	104 1/2	104 1/2	104 1/2	104 1/2
Saturday.....	103 1/2	104 1/2	104 1/2	104 1/2	104 1/2	104 1/2
Monday.....	103 1/2	104 1/2	104 1/2	104 1/2	104 1/2	104 1/2
Tuesday.....	103 1/2	104 1/2	104 1/2	104 1/2	104 1/2	104 1/2

NEW YORK, Jan. 7.—Wheat—\$1.05 1/4 for cash, \$1.04 1/4 for February, \$1.05 1/4 for March, \$1.04 1/4 for May, and 99 3/4c for July.

CHICAGO, Jan. 7.—Wheat—97 1/4c for May.

## The Prune Market.

NEW YORK, Jan. 5.—Francis Cutting, the California fruit-packer here, sold a line of California prunes, 60s to 90s, Saturday, at 11c 1/2 lb., spot.

## Visible Supply of Grain.

NEW YORK, Jan. 5.—The following is a statement of the visible supply of grain, afloat and in store on Jan. 1, 1891, as compiled by the New York Produce Exchange: Wheat, 25,847,000 bushels, an increase of 83,000 bushels; corn, 2,758,000 bushels, an increase of 137,000; oats, 3,326,000 bushels, an increase of 100,000; barley, 4,059,344 bushels, a decrease of 126,000.

## Wool.

NEW YORK, Jan. 4.—The holiday week brought only a light wool business here, although eastward, where the observance was less marked, trade is active and encouraging, while prices are strong and stock statistics are admitted to favor the selling side. Heavy wools will start about the middle of January. The confidence of manufacturers is indicated by their willingness to have the refusal of certain lines which they will need after the recent heavy purchases are worked down.

Boston reports more liberal dealing in wool. All grades are supported in prices, especially fleeces, Michigan X to XX ranging from 29c to 34c. There were sales of 437,000 lbs. of foreign and 1,970,000 lbs. of domestic, including 115,000 lbs. of California Spring. The fall stock of wool on this market shows a falling off of about 2,000,000 lbs. from that of a year ago in the supply of domestic wool on hand and about the same amount in foreign supplies. To offset this the receipts of domestic wool have increased nearly 100,000 bags, while those of foreign have fallen off about 44,000 bales. The sales during the past year have been nearly 20,000,000 pounds greater than those of the previous one, the increase being entirely of domestic wool.

BOSTON, Dec. 31.—The *American Wool Reporter*, in an annual review of the wool trade of the United States, will say to-morrow: The amount of wool on hand in the most primary markets of the United States is now excessive. The supply in Boston is considerably lighter than a year ago. A recapitulation of stocks in the principal markets, to which is added the estimated amounts in other markets, concealed supplies of wool in pullers' bands, gives a total supply of 92,819,882 pounds against 99,284,459 a year ago. The figures for the first ten months of 1890 for the whole United States show the total importations to have been 87,944,104 lbs in comparison with 110,721,456 for the corresponding time last year, and in consequence the lessened amount of foreign wool on the market, and the fact that there is a very marked improvement in the woolen-goods business, supplies of wool in the United States cannot be considered burdensome. The only weak spot in the outlook is the probability of increased importations of foreign wools after the beginning of the year.

## Hops.

NEW YORK, Jan. 4.—Compared with last week the best State hops are marked 2c off; Pacifics, 1c,

There was not enough doing to test the situation, but it may be said there was no general weakness. Other grades were neglected. The receipts here for the season were 2000 bags above last year, while the exports were 5500 bags less.

LONDON *Agricultural Gazette*, Dec. 15: Trade for hops continues in the same quiet state that has marked the course of business for the past few weeks. Factors have on hand a limited stock of new hops which they are trying to sell at the prices made for similar qualities when the market was active; but the merchants are not disposed to give those values, and, as sellers will not yield, the trade has come almost to a deadlock. The arrivals of American and Californian hops are on a very limited scale, and are likely to fall off still further unless the prices obtainable here advance considerably upon present rates, which are much below the quotations that rule at New York and San Francisco. Belgian hops continue in fair demand on account of their relative cheapness. For all other Continental produce the inquiry is dull.

## Dried Fruits.

NEW YORK, Jan. 4.—Apricots are steady, and quoted in sacks at 18c; boxes, 19c. Prunes are quoted as follows: Forties, 13c; fifties, 12 1/2c; sixties, 12c; decent small, 11 1/2c. The marked difference in the quality of raisins kills the speculation noted in other seasons. Prime in boxes are not too abundant for owners to carry them for a prospective trade. No one wants to venture upon common bagged stock. The future of low grades is uncertain. Pie-fruit dealers and consumers expected to help out, but that means dictation of prices. Three carloads were recently taken at 5 1/2c a lb; Good bagged were the same as last week. Layers in boxes, \$1.90 @ 2 1/2; fancy Three Crown, \$1.80, ordinary, \$1.60 @ 1 1/2.

## Local Markets.

	Buyer Season.	Seller 1891.	Buyer 1890.
Thursday.....	154 1/2	154 1/2	154 1/2
Friday.....	154 1/2	154 1/2	154 1/2
Saturday.....	154 1/2	154 1/2	154 1/2
Monday.....	154 1/2	154 1/2	154 1/2
Tuesday.....	154 1/2	154 1/2	154 1/2

	Buyer Season.	Seller 1891.	Buyer 1890.
Thursday.....	154 1/2	154 1/2	154 1/2
Friday.....	154 1/2	154 1/2	154 1/2
Saturday.....	154 1/2	154 1/2	154 1/2
Monday.....	154 1/2	154 1/2	154 1/2
Tuesday.....	154 1/2	154 1/2	154 1/2

BAGS—The market is dull at 6 1/2c @ 6 3/4c May-June delivery.

BARLEY—The sample market has held strong with an advance established. Receipts are light and demand fairly active. In futures, trading has been quiet owing to operators being afraid of the situation. The following are to-day's Call Board sales:

Morning Session: Buyer season—100 tons, \$1.53 1/4; 200, \$1.53 1/4; 100, \$1.53 1/4; 100, \$1.54; 100, \$1.53 1/4. No. 1 Brewing, buyer season—100 tons, \$1.60 1/2; 100, \$1.61 1/2 cwt. Afternoon Session: Buyer season—100 tons, \$1.54 1/4; 100, \$1.54 1/4. Seller 1891—100 tons, \$1.06; 100, \$1.06 1/2 cwt.

BUTTER—The market is settling to lower prices. Sellers appear to be forcing sales, fearing heavy receipts. The receipts show a steady increase, chiefly from the south, where there is better pasture and more fresh cows coming in.

CHEESE—The stock is light, as are the receipts. The demand is good, which keeps the market strong. EGGS—The market is still sinking under fair receipts and lessened buying points. The lessened outside demand is owing to better local supplies.

FLOUR—The market has a steady tone for favorite brands. More outside brands from up north are offering.

WHEAT—The sample market closes fairly strong. In futures, trading has been fair. Eastern quotations appear to be taken as a guide in dealings in futures. This is wrong, for the New York and Chicago markets are largely controlled by freights, the latter by railroad and also ocean freights, while the former is controlled by ocean freights. In last October wheat was sent from New York to Liverpool as ballast, but now 3d a bushel is charged. The following are to-day's Call Board sales:

Morning Session: Buyer 1891—100 tons, \$1.49. Buyer season—1300 tons, \$1.43 1/2 cwt. Afternoon Session: Buyer 1891—200 tons, \$1.48 1/4. Buyer season—700 tons, \$1.43 1/2 cwt.

## Market Information.

## Produce Receipts.

Receipts of produce at this port for the week ending Jan. 6th, were as follows:

Flour, qr. sks.....	38,866	Middlings, sks.....	1,666
Wheat, cts.....	271,393	Alfalfa, ".....	219
Barley, ".....	12,216	Chicory, bbls.....	110
Rye ".....	2,018	Broomcorn bbls.....	998
Oats ".....	7,239	Hops, bbls.....	91
Corn ".....	423	Hay, tons.....	838
*Butter ".....	318	Straw ".....	61
do bxs.....	27,360	Wine, gals.....	92,310
do bbs.....	25,380	Brandy, ".....	29,660
do kegs.....	19	Raisins, bxs.....	900
do tubs.....	62	Walnuts, cs.....	45
do 1/2 bxs.....	265	Honey, sks.....	28
*Cheese, cts.....	28	Flaxseed, ".....	46
do bxs.....	27,360	Mustard, ".....	46
Eggs, doz.....	25,380	Almonds, ".....	20
do " Eastern.....	2,323	Peanuts, ".....	50
Beans, cts.....	16,789	Potatoes, ".....	200
Potatoes, sks.....	711	Beet sugar, bbls.....	50
Onions, ".....	8,330	do do sks.....	200
Bran, ".....	97		
Buckwheat ".....	97		
*Overland.....	cts.		

## Cereals.

Mark Lane (London) *Express*, Dec. 15: During the 11 completed months of exports the Russian Empire has sent off 10,863,588 qrs. of wheat, of which 4,107,000 qrs. have been received at United Kingdom ports. These figures, to which little attention has yet been paid, are certainly worthy of considerable notice, for they reveal the proportion of Russian exports received by us, and enable us to estimate the importance of Russian weekly exports

much more clearly than has hitherto been the case. It has been assumed that a clear half of what is exported reaches us, but we now find that 40 per cent is enough to allow.

The local wheat market has ruled fairly strong. The offerings are light. Buyers hold to the opinion that with continued favorable weather, farmers now biding their time will begin to sell. This opinion is doubtless grounded upon the fact that the acreage seeded to the cereal is the largest on record, and consequently with well-distributed rains in February and March an exceptionally heavy crop will result. While it is well to look on the favorable side for a large crop outcome, yet the fact must not be lost sight of that on or about harvest-time a "bot norther" may set in and thrash out more grain than can steam thrashers. We have not had hot north winds for several seasons past, and it is to be hoped that with extensive tree and vine planting the climate may have been so changed that if they should come, it will be too late to do any damage to crops. Wheat receipts from up north continue free, which give buyers here enough to keep them from having pressing wants to be met. Now that the United States Senate has virtually stifled partisan legislation, leading grain farmers are hopeful that a free-coinage silver bill will be passed so as to advance the price of the metal and increase the cost of Indian and Russian wheat. With these costing more, our wheat will appreciate. Tonnage in port is light, as it is in the Columbia river and Puget Sound. The tonnage on the way is larger than at this time last year, but the increased duty on foreign goods may lessen the supply on and after next June, in which event wheat charters will be bigger and against wheat-sellers. It is the farmer who has to foot everything.

The Australian wheat harvest is in full blast, which causes ships to load coal from thence to this port to ask high freights. The high rates deter coal importers from chartering freely.

Barley has held fairly firm. The demand has been good, although at the moment it is reported more quiet, but quotations remain unchanged. The supply in this State and up North is light. Many dealers believe that the supply will be about exhausted before next harvest. The acreage to be seeded is quite large.

Oats do not show any material change. Both receipts and demand are moderate. An increased acreage, it is said, will be seeded in this State, but there is more led out each year.

Corn is quiet but strong. The available supply appears to be held in, or at least we judge so from the strength exhibited by the market. The high cost of barley and oats causes more corn and its product to be fed.

Rye is steady at full quotations.

## Feedstuff.

The market for ground feed is strong under light receipts and a fair demand. Honolulu is drawing quite freely, steadily increasing its purchases of rolled barley.

Hay is strong. The receipts continue exceptionally light, while the demand is good for the season of the year. Backward pasture is in favor of holders of hay, but then the supply of the latter to draw from is quite light. It is generally claimed that the crop this year will be very large. More alfalfa has been sold than ever before, while many fields have been seeded to grain to be cut for hay. But the quantity fed is not only very large but is steadily increasing.

## Live-stock.

Bullocks are offering fairly free. As a rule, they are in good condition. Hogs are a shade strong for the block, but for packing there is no material change. Mutton sheep are higher. Milch cows are without change. Average dairy cows can be bought, as they run, at from \$20 to \$30, while selected are higher. One dairy is offering the cows at \$20, and another at \$25. It is their intention to sell the cows and lease out the land. Horses are unchanged.

The market for dressed cattle is quoted as follows [to obtain the price on foot, take off from the price for stall-fed one-third to one-half, according to the nature of the feed and time fed; and for grass-fed take off the price from 40 to 60 per cent]:

HOGS—On foot, light grain fed, 4 1/4 @ 4 1/2 cwt lb; dressed, 7 @ 8c lb; heavy, 3 1/4 @ 4 1/2 cwt lb; dressed, 6 1/2 @ 7 1/2 cwt lb. Stock hogs, 3 @ 3 1/2 cwt lb. BEEF—Stall fed, 7 @ 8c lb; grass fed, extra, 6 1/2 @ 7c lb; first quality, 5 1/2 @ 6c lb; second quality 4 1/2 @ 5c lb; third quality, 3 1/2 @ 4 1/2 cwt lb; bulls and thin cows, 2 @ 3c lb. VEAL—Small, 8 @ 9c lb; large, 5 1/2 @ 7c lb. MUTTON—Wethers, 7 @ 8c lb; ewes, 6 1/2 @ 7 1/2 cwt lb; lamb, 8 @ 9c lb; spring lamb, 15c.

## Fruits.

In reply to a patron of the *RURAL PRESS*, living at Riverside, we will state that in using small boxes for oranges, the 5 to 6 inches deep grape-boxes are brought into service.

The receipts of oranges are increasing, but consumers are as yet a little shy, owing to their being too many green. Thoroughly ripe fruit is quickly taken by dealers, for which top prices are given. It is very generally claimed that receipts from now on will steadily increase, while the consumptive demand will broaden. Hucksters are taking few, while retail dealers are carrying more in stock.

Lemons and limes move slowly. Apples are in large supply with receipts free. Supplies are coming in from all sections and under more competitive selling the market is shading. It takes choice gilt-edged apples to fetch over \$1.50 a box. Hucksters, owing to their cheapness, are enabled to do a good peddling business. Oregon and the northern counties of this State send us the large quantities.

Pears and also grapes are hardly worth quoting, owing to light supplies and light demand.

Raisins are dull, but there appears to be a prevailing feeling that the market will do better in the spring months. The advance in railroad freights on raisins, dried fruits, etc., more than offsets any advantage that higher duties might have given to fruit-growers. The railroads get the duty and growers get left.

The stocks of dried fruits are not large, yet there is a dull market for all kinds, except peaches. It looks as if better prices can be reasonably looked for in the spring months. Peaches are strong with slightly better prices bid. The demand is chiefly from points at the East, where the crop was light. The supply of peaches here is said to be only fair,

and any marked increase in the demand will cause higher quotations soon.

## Vegetables.

Early spring vegetables are coming to hand from the southern part of the State, but in such limited quantities as to make correct quotations very difficult.

Onions, after declining under free supplies, are again tending up for the more choice good keepers. The season has been favorable for a large increase in planting in the southern counties, while more attention will be given to their planting in the bay and river counties.

Potatoes are barely steady, outside of the more choice Burbank seedlings, which are higher. The receipts are light, but the well-established fact that large quantities are held back, keeps buyers from stocking up, while in the southern part of the State the second crop is large. There will be a large increased acreage planted this season in California, Oregon and Washington.

Cabbages and root vegetables are unchanged. The former are being shipped more freely. Choice hard good-keeping heads are wanted.

## Miscellaneous.

From the *Commercial News* of Jan. 6th the following summary of tonnage movement is compiled: On the way to 1891. 1890.

San Francisco.....	271,884	189,015
San Diego.....	4,085	11,368
San Pedro.....	7,478	2,735
Oregon.....	31,716	25,969
Puget Sound.....	22,955	17,170

Totals..... 338,118 246,238

In port at San Francisco, disengaged..... 9,346 11,546

" engaged for wheat..... 43,038 77,796

San Diego..... 2,613 1,476

San Pedro..... 2,009

Columbia River..... 15,754

Puget Sound.....

Totals..... 72,660 90,818

To get the carrying capacity, add 65 per cent to the registered tons as given above.

From July 1, 1890, to Dec. 31, 1890, the following are the exports from this port: 1890. 1889.

Wheat, cts..... 5,859,269 6,233,523

Flour, bbls..... 567,116 546,302

Barley..... 176,369 815,805

In poultry there are no changes except in turkeys and large broilers. The former are lower, while the latter are tending up.

On Monday and yesterday wild game came in freely and sold for less money.

Honey is in light supply. An advance on our quotations can be obtained for desirable consignments.

There appears to be a slightly better tone to the wool market, but it is not so pronounced as to deserve particular attention at this writing. The advance in overland freights is against the market.

Beans are quiet but firm.

There is a continued free demand for grass seed, particularly for orchard and alfalfa.

Exports by sea the past week aggregate as follows: Flour, bbls, Honolulu, 1608; Liverpool, 15,460; Central America, 10,874. Wheat, cts, Havre, 57,286; Liverpool, 175,647; Dunkirk, 85,208.

Barley, cts, Tahiti, 63; Honolulu, 4561; New York, 4121. Rolled barley, lbs, Honolulu, 231,175.

Beans, lbs, Tahiti, 1275; Honolulu, 3272; Central America, 2503; Panama, 29,716. Wine, gals, Tahiti, 920; Honolulu, 7872; Liverpool, 1407; London, 823; New York 14,633; Central America, 3207.

Corn, cts, Honolulu, 461. Brandy, gals, New York, 1148; Central America, 360. Dried fruits, lbs, Honolulu, 2110; Liverpool, 7190. Hay, bbls, Honolulu, 850. Potatoes, sks, Honolulu, 844.

Onions, Honolulu, 206. Oats, cts, Honolulu, 1087. Cotton, tons, Liverpool, 50. Sugar, lbs, Panama, 26,369; Honolulu, 46,543; Jaluit, 3488; Central America, 400.

## Dried Fruits, Etc.

The quotations given below are for average prices paid. Something very fancy fetch an advance on the highest quotations while poor sells slightly below the lowest quotations. Prices named, unless otherwise specified, are for fruit in sacks. Add for 50-lb. boxes 1c per lb., and for 25-lb. boxes 1c to 1c per lb.

App
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Loose Muscatels, common, # b.x.	1 15 @ 1 35
" choice, " "	1 50 @ 1 75
" fancy, " "	1 80 @ 1 90
Unstemmed " in sacks, # lb.	4 @ 6
Stemmed " " "	4 @ 6
Seedless " " "	4 @ 6
" 20-lb. bx.	1 15 @ 1 25
" Sultanas, unbleached, in bxs.	1 15 @ 1 25
" bleached " "	1 25 @ 1 30
CALIFORNIA HONEY.	
Comb, dark, 2-lb. frames, 60-lb. cases, # lb.	5 @ 6
" amber, " " "	11 @ 13
" white, " " "	13 @ 15
" 1-lb. " " "	14 @ 15
Extracted, dark, 5-gal. cans, 2 cans to case, # lb.	4 @ 5
" white, " " "	5 @ 6
Comb, 2-tins, 2 doz. to case, # doz.	— @ —
Extracted, " " "	— @ —
" 4-lb. tins, 1 doz. " "	— @ —
Beeswax, per pound.	22 @ 25

Domestic Produce.

Extra choice in good packages fetch an advance on top quotations, while very poor grades sell less than the lower quotations.

BEANS AND PEAS.	
Bayo, chl.	3 50 @ 3 95
Butter, " "	2 55 @ 2 95
Pea, " "	2 50 @ 2 90
Red, " "	2 50 @ 2 90
Pink, " "	2 20 @ 2 40
Small White, " "	2 50 @ 2 80
Lima, " "	3 20 @ 3 55
Old Peas, # keye	1 65 @ 1 85
do green " "	2 50 @ 2 90
do Niles, " "	1 60 @ 1 75
Split, " "	4 @ 5
BROOM CORN.	
Choice to Extra	50 @ 80 00
Fair to Good, # 50	@ 60 00
Poor, " "	40 @ 45 00
CHICORY.	
California, # 50	@ 60
German, " "	6 @ 63
DAIRY PRODUCE, ETC.	
BUTTER.	
Cal. Poor to fair, # 15	@ 25
do good to choice, # 30	@ 35
do Giltedged, # 37 1/2	@ 39
do Creamery rolls, # 35	@ 40
do Eastern tubs, # 30	@ 32
do do dairy, # 20	@ 27 1/2
CHEESE.	
Cal. choice mild	12 @
do fair to good	10 @
do Gilt edged	13 @
Young America	13 @
N. York Cream	15 @
Western, # 11	@ 13
EGGS.	
Cal. ranch, doz.	27 1/2 @
do do selected	@ 33
do store, " "	25 @
Eastern, fresh, # 22 1/2	@ 25
do selected, " "	27 1/2 @
FEED.	
Bran, toll, # 22	@ 23 00
Feedmeal, # 27	@ 29 00
Gr'd Barley, # 52	@ 53 50
Middlings, # 24	@ 26 00
Oil Cake Meal, # 26	@ 28 00
Manhattan Food, # 100	@ 75 50
HAY.	
Compressed, # 13	@ 18 00
Wheat, per ton, # 12	@ 17 00
do choice, # 18	@ 24
Wheat and Oats, # 12	@ 16 50
Wild Oats, # 11	@ 15 50
Tame do, # 11	@ 14 00
Barley, # 10	@ 14 00
Barley and Oats, # 10	@ 14 00
Alfalfa, # 12	@ 13 00
Straw bale, # 70	@ 80
FLOUR.	
Extra, City Mills, # 4	@ 4 25
do City Mills, # 4	@ 4 25
Superfine, # 3	@ 3 50
GRAIN, ETC.	
Barley, feed, chl, # 1	@ 1 51 1/2
do Choice, # 1	@ 1 52 1/2
do Breeding, # 1	@ 1 55 1/2
do do Choice, # 1	@ 1 57 1/2
do do Giltedged, # 1	@ 1 62 1/2
Chevalier once, # 1	@ 1 62 1/2
do com to good, # 1	@ 1 62 1/2
Buckwheat, # 1	@ 1 40
Corn, White, # 1	@ 1 37 1/2
Yellow, large, # 1	@ 1 32 1/2
do, small, # 1	@ 1 32 1/2
Oats, milling, # 1	@ 1 90
Surprise, # 1	@ 1 90
Choice feed, chl, # 1	@ 1 90
do good, # 1	@ 1 80
do Gray, # 1	@ 1 80
do Black, # 1	@ 1 70
do do for seed, # 1	@ 2 10
Rye, # 1	@ 1 30
Wheat, milling, # 1	@ 1 43 1/2
Gilt edged, # 1	@ 1 41 1/2
do Choice, # 1	@ 1 41 1/2
do fair to good, # 1	@ 1 38 1/2
Shipping, choice, # 1	@ 1 35 1/2
do good, # 1	@ 1 35 1/2
do fair, # 1	@ 1 30
Sonora, # 1	@ 1 32 1/2
HIDES.	
Dry light to b'vy, # 9	@ 8
Salted, # 5	@ 4
HOPS.	
Oregon, 1890, # 30	@ 40
Cal 1890 Choice, # 37 1/2	@ 40
do Fair to G'd, # 30	@ 36 1/2
NUTS—JOBBER.	
Walnuts, Cal. lb	8 @ 9
do Ch'ce, " "	10 @
do paper shell, # 11	@ 12 1/2
do Ch'ce, " "	9 @ 10

Fruits and Vegetables.

Choice selected, in good packages, fetch an advance on top quotations, while very poor grades sell less than the lower quotations.

WEDNESDAY, Jan. 7, 1891.	
Bananas, bunch	1 50 @ 2 75
Cranberries, # 10	@ 14 00
Limes, Mex, # 4	@ 5 50
do California, # 1	@ 5 00
do " do, # 50	@ 75
Lemons, Cal., bx.	1 00 @ 3 00
do Sicily, bx.	6 @ 6 50
do Malaga, # 7	@ 8 50
ORANGES.	
do "Winters, # 1	@ 1 00
do "Vacaville, # 75	@ 1 00
do "Riverside, # 1	@ 1 75
Seedling Oranges, # 2	@ 2 50
do "Riverside, # 2	@ 2 50
do "Los Angeles, # 2	@ 2 75
Navel Oranges, # 3	@ 2 00
do "Riverside, # 3	@ 2 25
do "Los Angeles, # 3	@ 2 25
do Duarte, # 3	@ 2 25

Rope.

Baling, Duplex, lb.	10
" Manila, lb.	13
Twine, for bops, balls, tarred, lb.	15
" " grape vine, balls, lb.	14 1/2
" " coils, lb.	14 1/2
" spring, lb.	16
" binder (650 ft. to lb), lb.	14
Duplex twine 3c per lb less.	

PACIFIC COAST WEATHER FOR THE WEEK.

[Furnished for publication in this paper by officer in charge of branch Signal office, Division of the Pacific.]

DATE. Dec. 31-Jan. 6.	Olympia.			Portland.			Eureka.			Red Bluff.			Sacramento.			S. Francisco.			Fresno.			Keeler.			Los Angeles.			San Diego.			
	W.	T.	F.	S.	S.	M.	T.	Rain.	Temp.	Wind.	Weather.	Rain.	Temp.	Wind.	Weather.	Rain.	Temp.	Wind.	Weather.	Rain.	Temp.	Wind.	Weather.	Rain.	Temp.	Wind.	Weather.	Rain.	Temp.	Wind.	Weather.
.00	.02	.36	.00	.00	.01	.24	.63	44	44	44	S E	46	46	46	S	48	48	48	S	50	50	N	44	40	42	56	54	56	58		
S	S	S	S	S E	S	S		48	48	48	S E	46	46	46	S	48	48	48	S	50	50	N	44	40	42	56	54	56	58		
E	E	E	E	E	E	E		48	48	48	S E	46	46	46	S	48	48	48	S	50	50	N	44	40	42	56	54	56	58		
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Cl.	Cl.	Cl.	Cl.	Cl.	Cl.	Cl.		Cl.	Cl																						

EXPLANATION. Cl. for clear; Cy. cloudy; Fr. fair; Cm., calm; indicates too small to measure. Temperature wind and weather at 5 P. M. (Pacific Standard time) with amount of rainfall in the preceding 24 hours. T indicates trace of rainfall. P C, partly cloudy. Rn., rain.

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WHERE TO GO.

While we have little fancy and still less space for "puffs," so lavishly indulged in by the average newspaper, we have no hesitancy in bestowing a word of commendation where it is clearly deserved. We deem it at least a part of the mission of true journalism to furnish the reader with the most reliable information obtainable concerning the various business institutions of the country. Among these are the hotels, of which the American Exchange, 319 Sansome street, San Francisco, will be found to fill every want of the business man and the general traveling public, being quiet and well conducted. The rooms are large, neat, airy, and well furnished, the table supplied with the best in the market, while the charges are quite reasonable. In brief, the liberal patronage retained from year to year is a sufficient guarantee of the popularity of this hotel as well as its gentlemanly proprietors, the Montgomery Brothers.

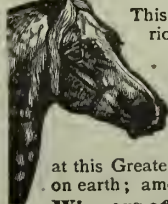
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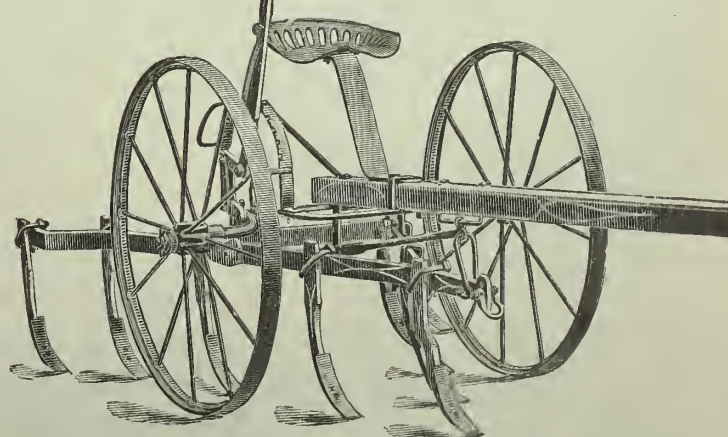
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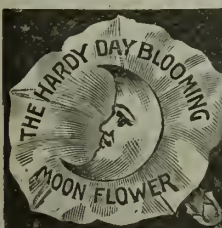
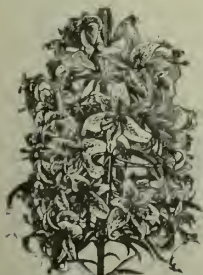
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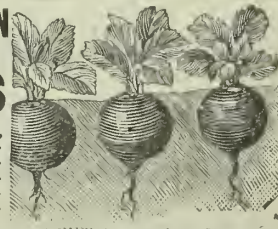
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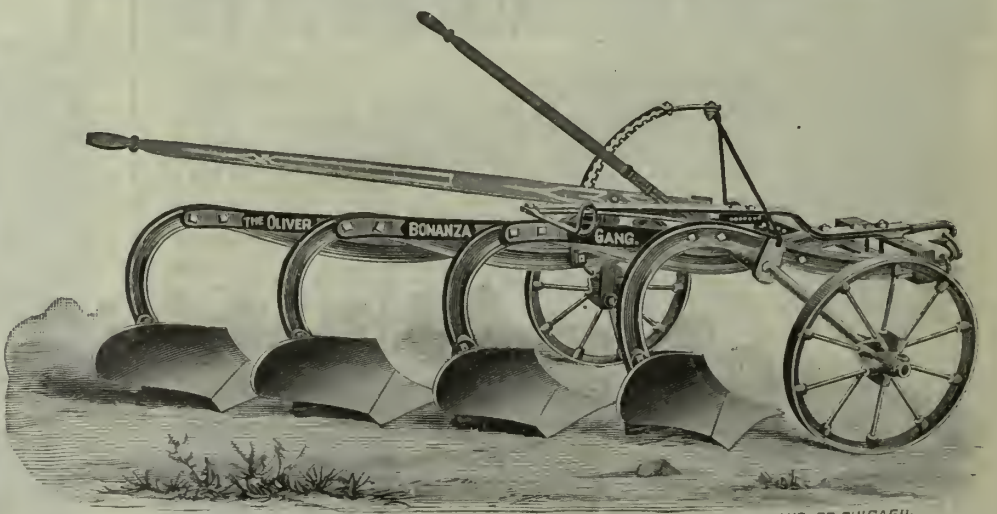
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Vol. XLI.—No. 3.

SAN FRANCISCO, SATURDAY, JANUARY 17, 1891.

DEWEY & CO., Publishers,  
Office, 220 Market St.

### The Health of Our Live-Stock.

It is announced that the Legislature now in session will make a record for economy and that the taxes this year will be considerably reduced. We sincerely hope so, for the vast expenditures during the last two years have been a grievous burden. There is no good reason why the cost of maintaining law and order and promoting intelligence in California should be so much greater than in other States. Therefore we hope the promises and pledges of economy made by both political parties will be sacredly kept and the desirable results realized.

But in such pruning of public expenditure, the legislator's eye should not be closed to actual needs of the people. One of those to which we have alluded each time the Legislature has assembled for the last decade or more is the provision of State service in the promotion of animal health and the stamping out of contagious diseases. Nearly if not quite every State in the Union has a State Veterinarian. Here, though our live-stock interests are large and growing, we have nothing of the kind. Contagious diseases and animal parasites proceed with only individual opposition and occasion losses which our stock-growers should be saved from. Our stockmen have been almost overlooked, while other industries have been fostered and promoted by State money. They should now be provided for and the cost need not be large.

We need a State Veterinarian to determine the character of prevalent diseases and with authority to stamp out contagion, to give information on animal sanitation which the public needs, to give instruction by lecture and demonstration at farmers' meetings and at the University, and to meet other pressing public needs. We trust that the bill introduced by Senator DeLong to meet these needs will be enacted.

### Orange-Growing.

It is Citrus Fair week in Central and Northern California, and a superlative effort is being made at Marysville. Two months hence Southern California will have her share of citrus encouragement from the State Treasury, and Los Angeles will be the center of attraction. Although there is much sectional feeling on this question of citrus-fruit growing for the last few years and may be for years to come, it is proving an excellent plan to provide for these two great winter fairs in the two rival regions. Much of the ill-feeling of the last few years seems to be disappearing, and much of the ignorance is being displaced with better information. The whole question is coming more

As the orange, king of our winter fruits, is now leading in public attention, it is natural that our columns should reflect the brilliance of the ruling sovereign. Those readers who



BOTANICAL CHARACTERISTICS OF THE ORANGE.

and more upon the plane of friendly rivalry and generous emulation, and therefore the results will be widely beneficial. Each side will be stimulated to do its best, and thus the whole will be advanced.

do not grow oranges will find matters more to their liking in later issues of the RURAL.

In this issue we have a very timely illustrated article by B. M. Lelong, Secretary of the State Board of Horticulture, on the culture of the

orange. Mr. Lelong grew to manhood among the orange groves of Los Angeles county, and is practically acquainted with the affairs of which he writes. His condensed essay was prepared to afford such information as will be most likely to be called for, while public attention is so strongly drawn to the citrus fruits by the fairs at Marysville and Los Angeles.

It will be found to cover all leading points of practice, and should be preserved for reference. The illustrations are all pertinent to the text. The botanical characters of the orange, the Joppa, a new variety to which attention was called in last week's RURAL, the showing of the several architectural designs produced at the Oroville fair last year by typical buildings all composed of oranges, the proper planting and pruning of the orange tree—all these are shown in engravings on the pages of this week's RURAL and add much to the acceptability of Mr. Lelong's effort.

The botanical characters of the orange, as shown in the smaller engravings on this page, will be of general interest. They are as follows: A. Compound unifoliate leaf of the orange (*Citrus aurantium*). 1. Point of union, marked by an articulation; 2. Petiole, winged on either side; 3. Lamina; 4. Flowering branch; 5 and 6. The fruit; 7. Flower complete; 8. Pistil; 9. Transverse section of ovary, which becomes the fruit as popularly known.

A NEW ORANGE, THE "JOPPA."



SCENE IN THE PAVILION AT THE STATE CITRUS FAIR, HELD AT OROVILLE, IN JANUARY, 1890.



## CORRESPONDENCE.

Correspondents are alone responsible for their opinions.

## San Diego Notes.

EDITORS PRESS:—Among the very many peculiarities of San Diego county I propose mentioning some of the more remarkable. The size, when compared with other counties, is really wonderful, it being as large as the States of Massachusetts, Rhode Island and Connecticut combined, having mountains many thousands of feet in height and valleys 300 feet below the level of the ocean. There are also valleys on the Colorado desert, which, if flooded during the winter, are very fertile; but if not, gophers will starve there. There are also several rivers between the north boundary of the county and the Mexican line, among them the San Diego, Sweetwater, Otay and Tia Juana, which flow on an average about three months during the latter part of winter, when the mountain snows melt and mingle with the rains which fall on the mesas many miles below. For about two-thirds of the year they are entirely dry; but what seems very singular is, if one digs in the river-bed from two to three feet, plenty of water is found. As a general thing, cactus, sagebrush and several other varieties cover the ground until removed by the hand of man, but in some places the growth of timber is immense, oak and pine being abundant, and on moist ground willow and cypress; but when this ground is once cleared and put under cultivation, all kinds of fruit and ornamental trees flourish equal to those on any soil under the sun, especially where irrigation is used in connection with other culture.

Thunder-storms are almost unknown here, for during the three years we have spent here there have been only two. It often happens, however, that a thunder-storm arises at sea and comes toward us, looking very black and forbidding, but as it approaches San Diego bay it gradually dies away and we hear no more of it. The tradewinds come on early in the summer and commence blowing from the southwest until about 5 or 6 o'clock, when they die away during the night, which is invariably cool, so that one can sleep comfortably under one or two blankets.

During the winter season we often see the mountains 40 to 60 miles east of us covered with snow to a depth of two or three feet, but in order to see it we have to look away over the valleys and mesas covered with orange and lemon groves in full bearing, and it is never cold enough near the coast to kill our geranium blossoms or callas, and our hillsides and valleys are perfectly lovely with a great profusion of grasses, wild grain and all shades of flowers.

## Irrigation.

To any one who pauses to consider, it is marvelous what has been done by irrigation in Southern California during the past three years. When I came here three years ago last month, there was no irrigation practiced excepting such as was done with the wells and when the water was raised by windmills, and consequently the process was a very slow one. Many of the ranchmen relied more on cultivation than on irrigation, and some were so prejudiced against the use of water that they really believed many crops were injured by its use, and still persist in selling their fruit and vegetables for a higher price when they are not irrigated.

When crops are grown on the bottom-land in the valley, many of them along the borders of the streams on a sandy-loam soil, the roots no doubt find their way down to the water, which is but a short distance below and ample to supply the growing vegetation; but to one who notices the higher mesas and bluffs, which are now under cultivation and producing fine crops of fruit and grain by the judicious use of water from the reservoirs, it is at once evident what is being done by irrigation.

I find also that those who begin to irrigate are sure to enlarge their facilities instead of contracting, and this to me is a most convincing argument in favor of the use of water. The constant looking after new sources of supply and the expenditure of so many thousands of dollars to supply every locality with an abundance of water for irrigation purposes, shows at a glance the unbounded faith the people have in irrigation. So, also, any one who looks through the Chamber of Commerce from time to time and learns under what method the finer specimens of fruit, vegetables and grains have been produced, not forgetting the flowers, must be ready to exclaim, in the language of the mottoes at the celebration of the opening of the reservoir of the Sweetwater: "Sunshine, air and water, and the greatest of these is water!"

Three years ago some ranchmen in Otay were noted for their fine apples, plums and other fruits, but to-day we hear little said about it; but one of them was heard to remark at the time of the September rain that he thought it would be \$3000 damage to his vineyard. T.

## Jackass Rabbits and Others.

EDITORS PRESS:—The collection of giant straddle-bugs and other "fauna" is a harmless pursuit, as all can see; but why our Department of Agriculture should engage in it and what benefit we hayseeds are to derive from it would not have been so obvious had not the

article copied in last week's RURAL from the Examiner concerning the proposed exploration of Death valley made it plain. The "faunal area," theory as there set forth is so simple and comprehensive that when the surveys and maps are completed and distributed among the farmers we may expect to see agriculture receive an immediate boost.

To quote from the Examiner article: "For example, suppose it is determined what are precisely the limits occupied by the jackass rabbit. When that much is known, it must necessarily be true that any plant which thrives in one part of that area will do well in any other part."

Let's see: The jackass rabbit occupies Southern California; the orange thrives in Southern California; the jackass rabbit also occupies North Dakota; ergo, the orange will "do well" in North Dakota. There's a syllogism for you.

If our Department of Agriculture really expects to benefit the farmers of the country in the manner above intimated, there are other jackasses than the rabbits whose "limits" should be "defined." S. B. BAGNALL

Simi, Cal., Dec. 28, 1890.

## Cal. and the If.

EDITORS PRESS:—The custom has been continuous and universal in abbreviating the word California to use the letters Cal. Recently, however, some people have added two more letters and made the abbreviation Calif.

The reason given for this clumsy change is that the new State of Colorado has used the letters Col. to shorten its name in writing, and that Cal. and Col. are so nearly alike that confusion must result.

These abbreviations are alike, but nevertheless seem productive of no numerous errors in the transmission of mail. In ten years I have never had a case occur in which these abbreviations caused a misent letter or package. They are certainly not a frequent source of error.

If, however, they are, it is not for California, the older, the larger and the more important State, with its abbreviation thoroughly established, to make an awkward change and disagreeable increase of letters in its abbreviation. It is Colorado, the new-comer, whose abbreviation was made to resemble ours, that should change.

If and but are delightful words; to place one of them, however, on our letters without the other is a divorce not warranted in esthetics. It is, perhaps, with this view that our excellent reformers propose to put the "if" on all California letters, not only as a saving clause on things Californian, but also with the idea that the "but" will be there when Colorado makes fun of us.

Cal. belongs to us; it is for others to avoid infringing on our rights, and not for us to make a ridiculous retreat from an impregnable position. To set up this new-fangled notion makes a confusion in itself. It will never be generally accepted. Let us stand by the old familiar Cal. ABBOT KINNEY

Santa Monica, Dec. 30, 1890.

## SHEEP AND WOOL.

## Exterminate the Coyotes.

EDITORS PRESS:—At the last meeting of our Wool-Growers' Association it was the general sentiment of all members that the RURAL PRESS should be requested to publish the article which I send. [See below. EDS. PRESS.]

We are trying to exterminate the coyotes, and we want help from other counties. We want other counties to follow our example. We have killed 220 coyotes during the last two years and paid \$20 for each scalp, but if other counties breed them and drive them in here with their dogs, it will take a long time to wipe them out. We want you to publish the article in full so that it will reach all the wool-growers in the State, and let them know what we are doing.—G. W. SCOTT, Madison, Yolo Co.

## Coyote Scalps.

The Esparto Independent having been made the official mouthpiece of the Wool-Growers' Association of Yolo county, we propose to show in this article why the sheep industry should receive more protection from the county in the way of bounties for coyote scalps than it has yet received; and also why contiguous counties should adopt and cheerfully support, for the present, at any rate, a similar system.

Here are 12 reasons for our position:

1. In Yolo county there are about 60,000 acres devoted to the business of sheep-raising, mostly abrupt land, which would be worthless if need for other purposes.

2. This land is now used for the raising of sheep.

3. The sheep industry is one which helps to supply food and clothing to the people.

4. This industry pays a large sum into the county treasury yearly, for which little or no benefit is received excepting in the form of a bounty paid for coyote scalps, the bulk of which expense the Wool-Growers' Association of Yolo county now bears, being compelled to pay \$15 out of \$20 to hunters or trappers for coyote scalps.

5. This industry pays into the treasury of the county a sum of about \$5400 or thereabout, as taxes on the land and flocks occupying them, for which the county so far this year

has only been asked to expend \$405 for coyote scalps.

6. That the owners of this 60,000 acres do not want nor do not put the county to any expense for bridges or the maintenance of roads.

7. That the owners of these flocks and lands are as much entitled to an expenditure of the county money as people living along the Sacramento river, or any quarter of the county.

8. That the killing of these pests is one that the whole county (yea, the whole State) is interested in, because if they are not exterminated they will kill chickens, hogs, turkeys, geese, and become an unbearable nuisance.

9. That the amount now paid by the county—\$5—for coyote scalps should be raised to \$10, to more quickly exterminate the animals and to afford this valuable and tax-paying industry ample and just protection.

10. That the county is fully protected against fraud and imposition, because the Wool-Growers' Association does not pay any bounties for scalps until a member has vouched that the animal was killed in Yolo county.

11. That coyotes are a migratory animal, and if they are not killed off constantly they will accumulate in the valleys in such numbers, when driven from the mountains and the north, that this valuable and tax-paying industry would soon be ruined and large loss would ensue.

12. In San Bernardino county the people are obliged to shut up poultry at night on account of the coyotes. The same would be true here if they had been permitted to increase. The 220 coyotes which the association has been the instrument of having killed, would, if left unmolested, have grown to at least 500.

For the above reasons we claim the Board of Supervisors of this county is fully warranted in increasing the bounty.

The above article was read and incorporated in the proceedings of the Wool-Growers' Association, and the following resolution, offered by J. R. Parker, was unanimously adopted:

Resolved, That the Board of Supervisors be petitioned to request the Supervisors of Colusa, Napa, Lake, Solano, Sacramento and adjacent counties to join in with Yolo county and offer bounties for the extermination of coyotes. It is to be hoped this action will be taken.

## THE APIARY.

## Bees and Fruit.

EDITORS PRESS:—A San Diego county spiarist writes me as follows:

I have read your articles in the PACIFIC RURAL PRESS regularly, and I am always pleased with what you have to say. There is one thing that I have wanted to see you or some of our good writers do, and that is, write on the subject of law or California law in relation to bees or bee-keepers.

Some of my neighbors have an idea that they can make me get up and move my bees any time they see fit until those bees are five miles from any orchard or vineyard.

Now, if this is California law, we have not much right left us, and I don't feel like giving up a good business.

Give us the law in the next issue of the PACIFIC RURAL PRESS, or any law that you know of in relation to bees.—L. Y., Elsinore, San Diego Co.

Friend Y., don't get frightened; there is no danger of those neighbors of yours forcing you to move your bees five miles or five inches either for that matter, unless you want to.

Ignorance is generally the cause of the whole thing, and I strongly suspect that your non-agreeing neighbors are not up with the times.

In Placerville, at one of my apiaries, I was threatened with lawsuits on several occasions by a couple of persons who knew nothing at all of the habits of bees. They stated that the bees were eating up all their grapes, and in proof of their statement, invited me to come to their vineyard. I went. I found thousands of yellow-jackets and wasps at work, and also quite a number of bees.

"Now I want to see the bees opening grapes," I said. We watched a long time and took careful notice of a great many bees, and at last they had to admit that they were mistaken in regard to bees opening grapes. It is the yellow-jackets and wasps that do the real injury. Bees do nothing but suck at the juice after the fruit is injured, and unthinking persons seeing them do this, jump to the conclusion that the bee is the original trespasser.

I once asked the most extensive fruit-grower of Upper Placerville about how much injury my bees did his fruit in a season, and he said that he thought 50 cents would cover damages for the juice they sucked up. His ranch was about 300 yards from my apiary, and he dried quite a number of tons of fruit every season; besides, he had quite a vineyard. The only real damage I ever knew my bees to do was to suck up the juice of extra ripe Bartlett pears which a friend was trying to dry. In a case like this, I would always pay for the damage done by the bees. Bees are a great aid to fruit-growers in helping to fertilize the blossoms, and the good they do far overbalances the damage ever done by them.

Fruit-growers and bee-keepers should be friends. When they get involved in a difficulty about bees, let each come half-way and

talk the matter over in all its bearings, and in all cases try and arrive at a friendly conclusion.

Speaking of bees being trespassers, Mr. Thomas G. Newman, editor of the American Bee Journal, says: "Instead of bees being trespassers while gathering a few drops of honey from the flowers, they are positively required by the plants to fertilize them; and all Nature invites them to come to the feast simply to carry the pollen masses from flower to flower, and thus, as marriage priests, to cause them to become prolific and bear fruit in great abundance. In ignorance of this, many imagine that bees are trespassers and destroyers of fruit! Such nonsense vanishes before the revelation of scientific facts."

"If bees can trespass there is an end to bee-keeping," writes a member of the National Bee-Keepers' Union in the American Bee Journal; "for every homeman will be at the mercy of a surly neighbor. Apart from their merits as honey gatherers, bees are of incalculable benefit to market gardeners, florists, etc., in fertilizing flowers. If we had bees that could reach down to the honey cells of red clover, they would be of inestimable value to the farmer, as red clover depends for fertilization on insects—mostly bumble-bees. We are satisfied that the reason why the first crop of clover has so little seed is because there are not enough of the bumble-bees to fertilize it so early in the season. We noticed in one meadow, some heads were full of seeds and others apparently equally as ripe without a grain. The bumble-bees had evidently been on the one and not on the rest. Some wise men may laugh at this, but it has been carefully demonstrated by Darwin years ago, that when the bees are excluded the clover seed does not form."

## Experiments With Bees and Grapes.

Prof. N. W. McLain, of the United States Agricultural Station, Aurora, Ill., made extensive experiments to determine whether bees could perforate grapes. He placed several colonies of bees in a house, and endeavored by beat and other requisites to bring about all the conditions of a drought. In his report he says: "The bees were repeatedly brought to the stages of hunger, thirst, and starvation; the test continuing for 40 days. I obtained 13 varieties of choice grapes, and every inducement and opportunity was afforded the bees to appease their hunger and thirst by attacking the fruit which was placed before them. Mark this: Some of the bunches were dipped in syrup and hung in hives between the combs; some placed before the hives on plates; and grapes were suspended in clusters from the posts and rafters. The bees lapped and sucked all the syrup from the skins, leaving the berries smooth."

"They daily visited the grapes in great numbers, and took advantage of every crack in the epidermis or opening at the stem, appropriating to their use every drop of juice therefrom, but they made no attempt to grasp the cuticle with their mandibles or claws. I removed the epidermis carefully from dozens of grapes of various kinds, and placed them on plates before the hives. The bees lapped up all the juice on the outside of the film surrounding the segments of the grape, leaving this delicate film dry and shining, but through and beyond this film they were unable to penetrate."

"I punctured the skins of grapes of all kinds, by passing needles of various sizes through the grape, and placed these before the bees. The needles used were in size from a fine cambric needle to a sacking needle. The amount of juice appropriated was in proportion to the size of the opening in the skins and the number of segments of the grape broken. The same was true in the case of broken grapes burst from overripeness. Bees are not only unable to penetrate the epidermis of grapes, but they also appear to be unable, even when impelled by the direct necessity, to penetrate the film surrounding the berry even after the epidermis is removed. Grapes so prepared, without exception, lay before the hives until dried up."

"During the last season I made many visits to vineyards, and my observation and experience with bees in confinement and those having free access to vineyards furnish abundant proof to convince me that bees do not, and cannot, under any circumstances injure sound fruit."

## Law in Regard to Bee-Culture.

I do not know of any California law that has any special bearing or relation to bees or bee-culture. Mr. Gustav Bohm of San Diego county once had considerable trouble with some raisin-growers, but if I am correctly informed, he won the case, the raisin-growers admitting that they were mistaken. Mr. Bohm was a member of the National Bee-Keepers' Union, an association whose object is to promote the general interests of the pursuit of bee-culture throughout North America.

The Union has won all the cases brought against its members, and has gained several valuable decisions in regard to the rights of bee-keepers. The crowning victory won by the Bee-Keepers' Union was that of G. A. Clark of Arkadelphia, Arkansas.

The Supreme Court of Arkansas decided that the keeping of bees was not a nuisance, and Mr. Clark did not have to move his bees, as some malicious and envious persons tried hard to make him do.

In speaking of the decision of the Supreme Court of Arkansas, the general manager of the "Bee-keepers' Union," Mr. Thomas G. Newman, says: "That decision is our corner-



stone of defense. It calls a halt in all snob "careers of madness," and demands justice for the 300,000 Americans who are now engaged in the keeping of bees.

"What makes a business respected?" asked the president of the Union, and he answers his own question thus: Its usefulness to humanity. What makes a noisy, dirty rolling-mill respected? Its usefulness. What makes horses and horse-stables respected in large cities? Their usefulness. Why do we respect the constant blowing of steam whistles in large cities. Their usefulness. Who is a more useful member of our great pulsating humanity than he who gathers together a wealth that would otherwise be lost? Who accomplishes this in its entirety more than the honey producer? Why is not our business respected? I think it is because the general public are not informed of the fact that honey producing, with modern fixtures and methods, is a great business and of value alike to the bee-keeper and his country.

"When the people are aware of the extent of the pursuit and its usefulness, they will respect it; and, more, when they understand that bee-keepers stand by one another, and have a union for defense, they will respect it."

The coming season I hope to take a trip into the southern counties of this State, and I shall visit and interview a great many apiarists and fruit-growers, and hear the pro and con of the fruit and bee question, besides gathering many valuable items on bee culture for my new book, the "Western Bee World."

Grizzly Flats, Cal.

S. L. WATKINS

## HORTICULTURE.

### Peach-Growing in Sutter County.

A "Fruit-Grower" gives the *Yuba City Independent* the following interesting and suggestive article:

One of the leading industries of Sutter county, a few years hence, will undoubtedly be the growing of peaches. It has already been thoroughly demonstrated that our soil and climate are remarkably adapted to the culture of this fruit.

To those about to engage in fruit culture, we would suggest that peaches should be planted more extensively than any other fruit. The peach tree needs care and attention. It must be carefully pruned, cultivated and sprayed, but it will respond with generous returns when this care is bestowed upon it.

In planting a peach orchard, the grower should bear in mind the fact that there are three avenues of disposal for this fruit. It may be either canned, dried or shipped green. It is always better to plant an "all round" peach rather than one that is only suited to one market. To illustrate this, we might remark in passing that in a locality where canning and drying are extensively practiced, it would be folly to plant largely of a variety like the Alexander, that is only suited for shipping. There is a long list of peaches that are equally well suited to the three modes of marketing, and these are the kinds to plant. Then again the best peach is not always the peach to plant. The tree must be healthy, a vigorous grower, and prolific. The White Heath cling is one of the finest peaches known, but it is not grown extensively now because the tree is subject to mildew and curl-leaf and is not profitable.

Shipping green fruit East is yet a risky business, while canned fruit is necessarily expensive and is a luxury. Dried fruit is, however, fast becoming a staple article. It is economical and healthful, and should be largely used by every family in the land. Sutter county enjoys unusual facilities for producing a superior article of dried fruit. Our hot days and dry nights during the summer allow us to make a superior article of dried fruit in the sun, without recourse to evaporators.

Then in planting a peach orchard in Sutter county, choose varieties that are capable of being marketed in the three ways suggested above, but if they are a little better adapted for drying than for canning or shipping, so much the better.

A grower cannot go astray by planting any of the following varieties in Sutter county, as they are all grown at the present time here and are known to be profitable. These are all yellow free-stones and are named about in the order of their ripening: Early Crawford, Foster, Susquehanna, Muir, Wager, Salway and Picquet's Late. Of yellow clings there are not a great many varieties growing in the county, but these are standard: Tuscan, Runyon's, Orange cling, Lemon cling, Edwards cling and Crawford cling.

Clings are equally as good dried as freestones, and as the number of dried sorts is small, the grower should plant for experiment a few each of all the new varieties, and we would particularly recommend the planting of a few Sellers cling, Nichols cling, Grover Cleveland, McDevitt's cling and others.

No one will deny the statement that raw products are sold cheap—in fact at a slight advance on the cost of production—while the manufactured articles are expensive. The farmers of the United States are the poorest paid class, while the manufacturers are the wealthiest.

The farmer sells his raw product to the manufacturer, who adds to the cost of the material the expense of labor put upon the raw product, then receives a large benefit from the tariff, and

adds a large profit when he sells his goods. Let the fruit grower emulate the example of the manufacturer rather than that of the farmer. Do not sell your fruit green to a shipper at a cent and a half a pound or to a canner for two cents. You are then selling the raw material; but dry your product and make the profit yourself on the manufactured article.

Dried peaches are quoted in the paper to-day at from 8 to 27 cents per pound. The grower may say there is no money in dried fruit at 8 cents. Very true, but there is profit at 27 cents. Instead of making 8-cent goods, make the 27-cent article. The same fruit can often be made into the two different grades quoted above. The cheaper grade is carelessly picked, roughly handled, poorly sulphured and slovenly cured. Of course it is cheap. It has to compete with nearly every grower in the country.

On the other hand, the best quality of dried fruit is packed at exactly the right time, carefully graded, well bleached and thoroughly cured. After drying it is again graded, cleaned of its fuzz, etc., in a revolving wire screen drum, steamed or scalded and marketed in small packages.

When dried fruit leaves the orchard, packed ready for the consumer, the grower reaps the profit; but when the buyer tells you he prefers it in sacks, he does so because he wants to manipulate it himself, thus securing the enhanced price. There was an old saying in our Political Economy text-book: "Change the form of your product and double your profit." The example given was, "instead of raising grass and selling hay, raise grass and sell beef, thus making a profit on the grass and the beef." Apply this to peach culture in Sutter county. Instead of raising peaches to sell green, dry them and make a profit on the green and dried fruit.

But, above all, make a good article and make an honest article. Guarantee your goods to be exactly as represented, and see that they are. Let your name on the package be sufficient to sell the goods. A profitable business in drying first-class may not be built up in a single season, but if the fruit is as represented, buyers will soon know your pack and you will receive a price that will justify you for the extra expense incurred in making a superior article.

### Caution Against Poor Orange Trees.

EDITORS PRESS:—Are not the present high prices of orange trees going to lead to their destruction? I mention this because the present high prices for trees have set in motion all sorts of methods to produce them. Men without experience, and I fear sometimes principle, are rushing into the production of seedlings, and all sorts of culls, half ripe and immature fruit, are gathered up and put into the rot-heap for the seed. Surely this must in some cases bring a worthless, weakened seedling.

I have taken considerable pains of late to notice blocks of these seedlings set in rows for budding, some having been set two years, where one-third to one-half of them are so weak they were scarcely a foot in height and show every appearance of lack of vitality. These weaklings are often stimulated by strong fertilizers and then a bud is forced into everything that will receive it. Many of these buds, after a season's growth, are not more than a couple of feet in height. Now, owing to the present high prices, many of these light trees find their way into permanent setting (because of their being offered cheaper than good trees), where, if they live at all, they struggle along for years, when the fruit, owing to its inferior quality, again goes to the rot-heap for seed.

The health of the peach was very nearly ruined all through the peach districts of the East by the selection of improper seed—seed from trees that had the disease known as "yellows"—and all sorts of worked varieties that had been bred in and in until their vitality had been so nearly exhausted that in many cases the seed failed to germinate at all; or if it did, and was even budded, the tree often died without ever producing fruit, or at most yielded premature and worthless fruit. All reliable nurserymen now go back to the natural seed for stock, and as a natural result the health of the peach is becoming very much improved.

In my opinion, unless the producers of the orange pursue some method by which they can keep up a healthy seedling and select their scions from known healthy trees, the future of the orange industry will result in discouraging failure. Many of the best experienced growers of Florida use only seed from the native wild seedling. This is no doubt the proper method, and I trust our nurserymen will adopt some similar precaution before it is too late. There is probably no better seed to be had than the "Mission." It is a strong grower and seems to have all the requisites of a perfect stock, and could our seedlings all come from perfectly ripe fruit of that sort, there would be no fear for the future of the orange industry here; but so long as old seedling orchards are worth from \$500 to \$1500 per acre for the fruit, I fear not much of the fruit of this old sort will find its way into the seed-bed.

L. C. WOOD.

Ontario, Cal.

### Fruit Union Annual Meeting.

The sixth annual meeting of the stockholders of the California Fruit Union for the election of a board of nine (9) trustees for the ensuing year, and for the transaction of such other business as may come before the meeting, will be

held on Wednesday, Jan. 21, 1891, at 1 P. M., in Irving hall, No. 141 Post street, S. F.

H. A. FAIRBANK,  
Secretary California Fruit Union.

## THE VINEYARD.

### Wine Grapes for Napa Valley.

Prof. Geo. Husmann concludes his letters to the *Napa Register*, two of which have already appeared in our columns, with the following discussion of wine-grape varieties:

The choice must depend somewhat on the nature of the soil of the vineyard. If it is upland, which will produce fine clarets, the best red-wine varieties should have the preference, perhaps. If rich bottom-land, white varieties should predominate, as such soil will not produce color and tannin, which is generally sought for in red wines. It is the injudicious planting of Zinfandel and other varieties of black grapes on soil not at all adapted to them which has brought our red wines into disrepute, together with injudicious handling by the maker.

But in all cases it should be our aim to produce the best quality, together with sufficient quantity to be remunerative to the grower. In white varieties we have a better choice than in red, and I will name a few which are excellent bearers and also make the best wines. It is hardly to be expected, however, that they should be adapted to all localities. I have tried them in Talco vineyard and here in Chiles valley and found them all I could wish, producing heavily every year and making the best of wine.

Sauvignon Verte.—This is in many localities also called Colombar, which is, however, a misnomer, as Colombar is one of the synonyms of Semillon. The first name is used most generally in our valley, though there are doubts as to being the correct one. Mr. Crabb contends that it is the Pedro Ximenes of the Spanish. However this may be, it is one of the best varieties to produce a fine wine of the Sauterne type, and seems especially at home here. It is a very strong, long jointed grower and must therefore have stakes at least five feet long, when 50 pounds to the vine are not an unusual yield. It is very hardy also, and will withstand a moderate frost. Some of my vines have green leaves yet, where the Zinfandel were frosted nearly two months ago.

Semillon.—This is a beautiful vine in every respect, a good bearer, with fine persistent foliage, hardy and healthy, and producing a wine of the finest quality of Sauterne type, which is eagerly bought by the dealers at an advanced price. It grows more stocky than the foregoing, and will withstand heat and cold well.

White Pinot or Chablis.—This is the famous White Burgundy of commerce, which is also used in the manufacture of champagne; a fine vine in every respect, a good grower and bearer and makes excellent wine.

Green Hungarian, or Long Green (Verte Longue).—To those who desire a wine of the Hook or Rhenish type, this will be the grape, as its wine resembles good Riesling, and the vine is a very heavy bearer even with short or stool pruning. With long pruning it will overbear. It comes perhaps nearer than any I know of to being a model vine—short jointed, stocky growth, heavy foliage, not affected by the sun and very hardy. It can be grown on short stakes and even with stool pruning afterward, like Zinfandel.

These four are my choice. I do not like the Rieslings on account of their straggling growth and as they are also subject to coulure; nor the Chasselas because it sickers badly and its wine, though fair, does not come up to the high standard of quality which I have in view always.

### Grapes for Red Wine.

I do not pretend to be as well posted on these, as I think they should be grown only on particular soils adapted to them, such as our hillside, with that peculiar red soil which we know as the home of the redwood and manzanita. From a general standpoint, the soils of this State, as cultivated so far, do not seem so well adapted to the production of fine clarets as to white wines. The Cabernet Sauvignon, so highly lauded and which makes the finest type of clarets, is unfortunately a very poor bearer and will not pay the grower except at fancy prices. The vintner, who sells to the wine-maker, can better afford to grow Zinfandel at \$15 per ton than Cabernet at \$25 or even \$30 per ton. The same may be said of the Milbeo. In the best locations, the Zinfandel, if well ripened and carefully handled, makes about as fine a wine yet as any we have, but it has many faults. It is apt to sunscald, ripens unevenly, and is on that account difficult to ferment, and is a tender vine, subject to frost and black knot. It would be hard to find, among the many candidates for public favor, one that would answer all the requirements of a perfect vine. Therefore I prefer white varieties, where I think we have obtained perfection. Among the most deserving of the red, I will mention Petit Syrah, Mondeuse, Grosse Blane, Carignane, Tannat and Baco, or, as it is more generally known here, Crabb's Back Burgundy. Some advocate even Mataro and Grenache, which in my estimation are only second class. A variety which has been much overlooked, but which in my opinion will make a very fine red wine on good soil, is the Gamay Teinturier.

It is a stocky grower, a good bearer, the juice is very high-colored and makes a wine of that beautiful purple color so much admired in clarets. So far it has mostly been tested in bottom soils not calculated to bring out all its best qualities and therefore is not as well known.

In conclusion, let me say that it is of the utmost importance to get the best of wood for grafting, and obtain it true to name. Better pay double the price than to have poor soils and mixed varieties, and there are but few vineyards in this State where they can be had absolutely unmixed.

## THE STOCK YARD.

### A Buffalo Ranch in California.

Monterey county is to be the seat of a new California industry, in the shape of a buffalo ranch, near the Carmel Mission. There are now in the stables at Del Monte three fine specimens of the American bison, a bull, a cow and a calf, the last a progeny of the former two. Last Sunday's *Examiner* had a two-column article illustrated with the portraits of the illustrious trio, which, with the exception of a domesticated herd in Kansas, a small band under Government protection in the Yellowstone Park and a few held in captivity on a ranch in Colorado, are the last representatives of a distinctive and mighty American race, that can be saved from extinction now only by domestication.

A seven-mile drive took the writer from Del Monte to Pebble Beach, where the buffalo ranch is to be located, where Winston, the owner, was found busily at work arranging for their reception.

The ranch, which comprises about 100 acres, is located in the lee of Cypress point, overlooks Carmel Bay, and slopes easily down to Pebble Beach. Water is brought from the Carmel river reservoir, and cypress and pine trees afford ample shelter.

"I bought the cow of Redbreast, one of Sitting Bull's warriors, about three years ago," explained Winston. "She was captured during the last buffalo hunt of the Sioux, in the fall of 1882, on the headwaters of the Big Cheyenne, not far from Fort Pierre, on the Big bend of the Missouri, in South Dakota. I am the first white man who ever owned her. She is now in perfect form. You know a buffalo doesn't mature until eight years of age, and Janie is just past eight."

"The bull I captured myself on the 16th of June, 1886, 65 miles southwest of Jamestown, N. D. He is the last buffalo ever captured alive in the Dakotas. I killed his mother and the calf was then so small that he didn't try to get away, but lay hidden in the long grass. I picked him up and carried him away."

"The calf was born in Portland, Or., Oct. 1, 1889, and is named the Duke of Portland. He was the first buffalo born west of the Rocky mountains."

"These are the only buffalo on the coast and I am assured by Gen. Miles, Gen. P. E. Conner and other military men that they are the finest they have seen in captivity."

"Oh yes," he continued, "they stand captivity all right, and the climate agrees with them admirably. They eat anything that cattle will, and I am sure will thrive here."

"They know me, and I can do almost anything with them; but they will not make up with a stranger. The bull knows that I am not afraid of him, and submits to my will, but he can tell in an instant that a stranger views him with distrust, and when you glance at a tree or a convenient fence in case he should get loose, he knows just as well as any one that you are afraid of him, and immediately lowers his head and charges."

"I am going to stop here on the ranch and attend to the animals, which we shall have out here in about six weeks. I shall have an inclosure up there where you see the line of posts, under the pines, of about eight acres within the large field. The fence will be five boards high, and I think buffalo-tight. In order to make certain, however, I shall put rings on the bull's horns, and a triangle chain from the ring in his nose to the rings on his horns, which will keep him from breaking it down. I shall seed the inclosure to alfalfa and go about raising buffalo just as I would cattle."

"It will be a strange fact that here within sound of the bells of Mount Carmel, and just where old Father Junipero Serra located the pescadero, the buffalo should be saved from becoming extinct by domestication."

"In addition to rearing the pure buffalo I shall cross them with a herd of Galloways, and also with the native cattle. The cross is a successful one and has been carried down to the sixteenth generation. The Galloways are peculiarly adapted to this purpose; their coat is jet black and long, and in appearance they resemble the buffalo more than any other breed of cattle, except that they are hornless."

"The hair of the Galloways is extremely fine and the cross produces a superior buffalo robe, equal to seal skin. Some that have been obtained in Kansas have sold as high as \$280 each."

"We shall kill the progeny for their hides, and the beef will also prove valuable. Buffalo beef is the best in the world. Of course when the animal runs wild it is strong and sinewy, but when brought up in captivity and stall fed it has no equal."—*Salinas Index*.



## PATRONS OF HUSBANDRY.

In our Rural Press Official Grange Edition, issued every week, will be found additional matter from this and other jurisdictions, of interest and importance to Patrons. Any subscriber who wishes can change free to that edition.

## "And Still It Moves."

[By MORTIMER WHITEHEAD, National Lecturer.]

In one of our leading agricultural papers a few days since appeared an editorial criticism upon a letter from a farmer in the State of Michigan, in which he advocated as one means of relief for the depressed condition under which farmers everywhere are suffering, that Government should issue its money direct to the people, with farms as security, the same general idea that has within a short time been introduced and ably supported in the United States Senate by Senator Leland Stanford, of California. This agricultural editor says: "It would be unfortunate under our political system if the Government should go into the business of loaning money to the people."

On behalf of thousands of other farmers who think as does that farmer in Michigan, I would like to ask that editor if the Government is not now, and has not been for years, loaning money to one class of its people, and at a charge of only one per cent for its use at that? (with bills now before Congress to loan it to them absolutely free).

Take two men at the close of the war. One buys a farm for \$10,000; the other buys Government bonds for \$10,000. Both are investments; the farm and the bond. Both represent value, and have a buying and selling price. The money in the bonds, without any labor of the holder, has paid a much larger interest, it is true, than has the money in the average farm, with all the hard work of the farmer and his family. Those favored few, the special class "of the people" who own the bonds, can take them to Washington, deposit them in the Treasury (say \$100,000). They are safer there than at home. Those who bought them still own them. The interest on them never stops—it is regularly and promptly paid; and, on those bonds as security, Uncle Sam—the Government—loans this special class "of the people" \$90,000 in money, which they take home and, as middlemen, loan this Government money to the farmers and others "of the people" at 6, 8, 10, 12 or more per cent interest.

Now, why not let the farmer have the same chance with his property?

If the bank loans the money obtained, printed, made and furnished by the Government, to a farmer on his note, and he fails to pay it, don't they take his farm, if necessary?

In my State—New Jersey—for many years past, the State has loaned its school money to farmers, with their farms as security, and with entire success and satisfaction.

In England, a number of years ago, the Government loaned large sums of money on long time, and at very low rates of interest, to farmers for the purpose of tile draining their lands.

How many hundreds of millions of dollars has our Government loaned to another class "of the people" to help them build railroads that are now too often used to oppress the farmer?

It simply makes a difference who is doing it. Senator Stanford's step was in the right direction.

The world moves, and the farmers are awakening and commencing to move with it. New ideas are coming to the front.

"All citizens shall be equal before the law," says our National Constitution, and that means finance laws, tariff laws, and all laws. Let us think on these things.

The National Grange at its annual session in November 1889, in Sacramento, Cal., by a vote of more than three to one adopted the following:

*Resolved*, That we \* \* \* also favor the maintenance in circulation of the paper money of the United States, independent of the National Banks, in sufficient volume to prevent any future contraction, and consequent embarrassment to our prosperity.

The National Grange has always declared itself fairly on the side of the great mass of our people on these important questions. This the farmers are coming to understand more and more with each passing year; and so this great National organization of farmers, now nearly twenty-four years old, grows and prospers at this time better than ever before in its history. Farmers, unite with the nearest Grange, or get one in your neighborhood as soon as possible. Take the wife, and boys and girls above 14 years of age, with you, and let us all work together on these matters that will relieve us of the unfair burdens we are now bearing. The Grange offers to help you. We must unite or go under.

## Joint Installation.

A. T. Dewey, Sec'y State Grange—DEAR SIR AND BRO.: Alhambra, Walnut Creek and Valley Granges will have joint installation Jan. 24th, at Valley Grange hall. Fraternally yours, GEO. P. LOCKES, Master Valley Grange.

Pacheco, Cal., Jan. 7, 1891.

Worthy Master Davis will be present.—EDS.

OWING to our electric motor getting out of order, our last Grange edition was delayed one mail.

## The Master's Desk.

R. W. DAVIS, W. M. S. G. OF CALIFORNIA.

"The art of Agriculture is the parent of all arts." Don't you think you can afford to join the organization that has done much to instruct and assist the farmers in the pursuit of this Parent of Arts? No Order has done more to advance the calling of the farmer than the Grand Old Grange. The Patrons of Husbandry is so well balanced that it is now considered the conservative power of the nation. No class of our citizens is more steady, temperate and reliable than the farmer. In times of sorest distress the farmer is relied on as the safe man. Therefore we want to have the agriculturist well educated, well organized and fully prepared for all positions. This work the Grange has done, is doing and will continue to do. The farmer who wants to keep abreast of the times will join some agricultural organization and there is none better than the Grange.

The Grange is not partisan, yet the principles we teach underlie all politics.—*Declaration of Purposes.*

In our noble Order there is no communism, no agrarianism, no nihilism. We are opposed to such spirit and management of any corporation as tends to oppress the people or rob them of their just profits.—*Declaration of Purposes.*

It is a safe thing, with the new year, to begin to look out for hogs lawyers, doctors, book-agents, patent agents, fraternal society agents, lying circulars, mendicants and politicians. Keep an eye open for persons and promises that are intended to deceive.

Don't criticize too severely, for if you do some one may criticize you!

Plant a rose cutting about now. The spring-time will soon be here, and what more welcome visitor than the queenly rosebud?

Watch the person who has no good word for any of the neighbors! Something wrong somewhere.

How much money ought the present Legislature to appropriate for the exhibit at the World's Fair? Local Granges ought to post the Representatives. This is a live question; one of much importance to the taxpayer. Speak out by resolution in your Grange and send a copy under seal to your representatives at Sacramento.

The Grange is a peacemaker. The Grange believes in arbitration. We think better results can be obtained, with less annoyance and at very much less expense, by referring the disputed question to arbitration than by referring it to a court. So the Grange would adjust National difficulties, when they arise. The Behring sea difficulties are a case in point. While no person wants to see America insulted, wronged or betrayed, yet in this particular case, America can well afford to investigate and fairly and honorably arbitrate. Let the Grange use its influence to prevent a war or a shadow of war. Let the Grange practice what it preaches—"in all things charity."

Which day of the month is "Recruiting Day" in your Grange? An army cannot be kept in order and in fighting trim without recruits. Appoint your Committee on Recruits right away. Let's have a "General Muster" all along the line of the Grange this spring and summer.

Some of the fraternal organizations have employed women on the organizing force. Where is the sister who will organize a Grange? We had hoped for a charter list from a sister before this date. There is abundant opportunity for "Woman's Work," in organizing and reviving Granges.

Have you the new annual word? If not, it is not the fault of the officers of the State Grange. The word has been duly sent. Get it.

There are 115 farmers and only 3 lawyers in the Kansas Legislature. Now let us see what the soil-tillers can do. This is their opportunity. Give the farmers a chance, and wait a time in patience.

Hon. Chauncey M. Depew says "that 50 men in the United States have it within their power to get together and in 24 hours stop every wheel of commerce and of business." There is something wrong when such a condition exists. Fifty millionaires ought not to have more power than 63,000,000 people. There is a wrong, and the Grange wants to correct it.

See that your Representative votes on the Appropriation bill, to keep the State tax levy at or below 50 cents on the hundred dollars.

Have you thought of doing away with a lot of the commissions? Ask your Senator to assist by proposing an amendment to the Constitution. We don't need so many commissions. They are expensive luxuries.

Bro. Wm. Johnston, Worthy Past Master of the State Grange, and Sister Johnston, have

just returned from a trip to Pennsylvania. Bro. Johnston installs the officers of Placer-ville Grange on the 17th inst. A good time is assured all who attend.

Let's have a Road law so drawn that road tax will go to the improvement of roads and not to the pocket of "some fellow."

Bro. W. W. Greer, Worthy Steward of the State Grange, has gone to Southern California in the interests of the Native Sons. He has promised to keep an eye open in the interests of the Grange.

## Work of the National Grange Legislative Committee.

OFFICE OF THE LEGISLATIVE COMMITTEE, }  
WASHINGTON, D. C., Dec. 22, 1890. }

To the Senators and Representatives in the Congress of the United States of America—GENTLEMEN: In the briefest manner possible in order to do justice to the important subjects before us, we herewith present a statement of measures of vital interest to the farmers, and, as in duty bound, call your attention to the fact that the National Grange of the Patrons of Husbandry has been, and is, very emphatic in its indorsement of the subject-matter of this communication. Whether you approve or disapprove, individually, of the proposed measures, we ask, and we think we have a right to ask, that you place them before our highest Legislature for consideration. If you will do this, we will confidently leave the outcome with the American people, millions of whom in their organized capacity as farmers are earnestly and anxiously awaiting legislation that will relieve them from the depressing conditions that surround them. The National Grange, in all the 24 years of its existence, has ever been conservative, yet progressive, in its demands for legislation. The farmers of the country who hold allegiance to this National organization have not asked and do not ask special or class legislation for themselves alone, but, as in the measures herein advocated, they claim that the interests of agriculture are the interests of all other honest industries, for on a prosperous and successful agriculture depend the prosperity and progress of our whole country.

PATRONS OF HUSBANDRY, NATIONAL GRANGE, }  
OFFICE OF LECTURER, }  
WASHINGTON, D. C., Dec. 20, 1890. }

John Trimble, Member of Legislative Committee of the National Grange, P. of H.—DEAR SIR: Complying with the request of your committee, I submit herewith a brief report of the action of the National Grange for several years past, relating to finance, as found recorded in the proceedings of its annual meetings.

The National Grange is on record through all the years of its history in favor of a plentiful supply of money for the use of all the people of our country, and against the control of money by a few special classes who have it in their power to depress the price of land and all its products, and the products of other labor as well.

However much farmers, in their several organizations, and laboring men in theirs, may differ upon other matters, it is a good sign that, without exception, all the farmers, laborers and workingmen's societies in the United States have placed the demand for the free coinage of silver in their national platforms, and have recorded themselves squarely on the side of more money and no middlemen to control its supply. All agree that at least \$50 per capita should be the limit, and that the supply of currency should increase in proportion to the increase in population.

The plan of the Government issuing money at a low rate of interest upon landed security direct to the people, the same as it is now loaned to the National banks with their bonds for security, has rapidly grown in favor, and has been approved by the National Grange after full, fair and free discussion. Respectfully, MORTIMER WHITEHEAD, Lecturer, National Grange, P. of H.

Proceedings, Twenty-first Session, Lansing, Mich., November, 1887, page 148:

That as the constantly increasing surplus in the National Treasury not only contracts the currency and increases the value of money, but decreases the value of land and labor, and is calculated to engender corrupt legislation, it should be used as rapidly as possible to retire the National debt at par, and be so dispensed as to increase the circulating medium and stimulate a healthy state of trade throughout the whole country.—Adopted.

Proceedings, Twenty-third Session, Sacramento, Cal., November, 1889:

WHEREAS, Contraction of the circulating medium of the United States has depressed the prices of farm products to the great injury of the agricultural classes; therefore

*Resolved*, That we favor the free coinage of silver, and also favor the maintenance in circulation of the paper money of the United States, independent of the National Banks, in sufficient volume to prevent any future contraction, and consequent embarrassment to our prosperity.—Adopted.

Proceedings, Twenty-fourth Session, Atlanta, Georgia, November, 1890.

One of the recommendations of the Executive Committee was as follows:

The financial policy of a government has also very much to do in influencing the prices of agricultural products, from the fact that when money is plenty it stimulates business by increasing the ability to consume, as there is scarcely a family that would not consume more by living better if they had the money to expend for the necessary comforts of life.

The best times the farmers ever had, and when they made the most money, was when we had a currency of \$56 per capita, and we are sure other industries were more prosperous. In 1865 we had

\$56 per capita, in 1889 we had only \$17. Perhaps \$56 per capita was more than the best interest of the country required, but \$17 per capita, which is worse, is as much too low. Let Congress fix the volume of currency at not less than \$40 to \$50 per capita; the farmers will take the money and pay their mortgages by the increased prices they would realize for their products, and keep the mills at work by buying better farm implements, cotton, woolen and silk fabrics; make the coinage of silver free, requiring the people who get it coined to take it the same as gold. This would advance silver to a parity with gold in the markets of the world, and place our export agricultural products on an equality with those of other countries. As it is now, gold being the standard of value, making exchanges with foreign countries, compels the sale of our products in competition with the silver standard nations of the world, thus placing Russian and Indian wheat into European markets lower than we can—England making over 33 cents per bushel in making her exchanges, as the difference between gold and silver. Before silver was demonetized, from 1792 to 1873, the values were almost uniformly alike.

Should there not be enough gold and silver to raise the volume of currency to \$40 or \$50 per capita, refund interest-bearing bonds by non-interest-bearing demand notes.

To get the money into circulation, the Government can loan it upon good real estate at, say two per cent per annum, under proper restrictions, limiting the amount to be loaned; also the amount of each loan. The interest would become a source of revenue to the Government, and be the means of reducing taxation, and thus relieve those who cannot, under present conditions, save enough of the small earnings of a lifetime to secure a home that they can justly call their own.

This, or some plan similar to that which is now in vogue for furnishing currency to National banks, or on any sound financial policy that could be devised by Congress to furnish money to the people at a low rate of interest, to relieve the depressed condition of agriculture, would be inestimable in its benefits to those who toil.

Farmers would be glad to take the money at two per cent, which would save them four per cent from present rates of interest, which saving, in 25 years, would pay their entire mortgaged indebtedness without paying a dollar more per annum than they are now paying.

Which was adopted by the National Grange. All of which is respectfully submitted.

J. H. BRIGHTMAN,  
LEONARD RHONE,  
JOHN TRIMBLE,  
Legislative Committee.

## North Butte Grange Installation.

EDITORS PRESS:—Saturday, Jan. 10th, by invitation, I installed the officers of North Butte Grange. Wife and I left home while the frost was on the ground, for a ride of 12 miles to Live Oak. The thermometer stood at 27 degrees. We found a goodly number of Patrons assembled. Grange was called to order and the regular order of business was gone through with. It was reported by the Steward that four sisters and one brother were in waiting for the third and fourth degrees, when Grange closed in the fourth degree and opened in the third, when I was called to the chair to confer the degrees, which I did (with satisfaction to myself). After the degree work was over, we sat down to the Harvest Feast. After ample justice had been done to the good things on the tables, where full 50 good Patrons had assembled for the occasion, we returned to the hall for installation. After Grange was called to order, the Secretary called the names of the newly elected officers. They were all found to be present except the Gate-keeper. They proceeded to elect that officer, after which the Worthy Master introduced me as the installing officer, the duties of which I proceeded to perform to the best of my ability. As each officer was installed, all pledged themselves to do all in their power for the good of the Order and for the good of North Butte Grange. After the installation was over, some short speeches were made by the members of the Grange. Sister Davy read an essay entitled "The Grange." I made a short speech, giving them good advice and encouraging the newly made officers. At 4 o'clock the Grange closed in due form. All went home thinking that it had been a very profitable day to them.

North Butte Grange is going ahead in the good work; it has taken in new members to the number of 25 or 30 in the last six months. Fraternally yours, B. F. FRISBIE, Yuba City Jan 11, 1891. State Deputy.

## Letter Notes.

## Commendable Working.

Petaluma, Jan. 5, 1891.

EDITORS PRESS: \* \* \* You can hardly charge Two Rock Grange with not furnishing its iota to the PRESS. For its size, it is indeed an active Grange. It is increasing its membership continually; our meetings are always interesting and special meetings are held frequently. We work beautifully together; no wrangling or quarreling is ever heard. We understand the principle and purpose of our Order and work accordingly. It is indeed a pleasure to belong to such a Grange, and no wonder it is prospering. Fraternally yours, C. NISSEN.

STOCKTON GRANGE.—Saturday evening, Past Master T. E. Ketchum, assisted by Mrs. Mary F. Merrill, installed the officers of Stockton Grange, No. 70, Patrons of Husbandry.—Stockton Independent, Jan. 6th.



## FARMERS' ALLIANCE.

SUBSCRIBERS wishing fuller information of the Alliance can have their names changed to the Grange Edition of the RURAL PRESS free, much to their advantage, this department being continued in the same.

## Judge Blackwood on the Farmers' Alliance.

Following is an able address by Wm. C. Blackwood, P. M. of Eden Grange, Haywards, on the Farmers' Alliance and Patrons of Industry, their aims and purposes, as developed by the resolutions adopted at their recent National Convention at Ocala, Fla. It was intended to be read at the joint installation meeting of Eden and Temescal Granges at Oakland, Jan. 3, 1891, and would have been delivered but for the want of time previous to the necessarily early hour of return of Eden Grange.

**WORTHY MASTER AND PATRONS:**—There has sprung into prominence a new organization, a new social and perhaps a new political organization in the United States, made up in the main of the agricultural classes, but containing quite a sprinkling of the other industrial callings which would seem to be allowable under their name, "Patrons of Industry," being much more comprehensive than "Patrons of Husbandry."

It is but little more than a year since this organization assumed prominence in the body politic. The first and preliminary convention of the Farmers' Alliance was held in October, a year since, in St. Louis. At that convention the general agricultural depression, as well as of other and dependent industries, was strongly set forth, and in a series of resolutions the causes of such depression were pointed out and remedial legislation demanded, and all labor organizations were invited to join the Alliance in the demand for such legislation.

The organization would seem to have had a phenomenal growth, now having, it is said, more than 5,000,000 members. This to my mind is conclusive evidence of the general depression of the agricultural industries in the United States, for intelligent people, such as compose the masses of the agricultural population of our country, do not organize in mass except to

Effect Some Great and Common Purpose, Common to the minds of all. This organization has been effected, then, to remove a general grievance affecting the mass of industrial interests, and to be accomplished only by the General Government ceasing to enact laws favoring certain industries at the expense and to the damage of other industries.

Well, since the organization of the Order in October a year since, and the declaration of its purposes, the Congress of the United States convened and proceeded to enact more offensive class legislation, bearing, in the belief of the Order, more heavily than ever on the general interests of the country and favoring, at the general expense, the great manufacturing corporations.

Well, what happened? A general election for Congressmen came off, and the dominant party controlling governmental affairs was, so to speak, swept out of existence. The cause of this Waterloo defeat is traceable to the Farmers' Alliance.

## Explicit Declaration of Purposes.

At their general National Convention recently held at Ocala, Florida, among their declared purposes, they announced that "Believing in the doctrine of equal rights to all, and special privileges to none, we demand that our national legislation be so framed in the future as not to build up one industry at the expense of another. We further demand the removal of the existing heavy tariff from the necessities of life that the poor of our land must have. We further demand a just and equitable system of graduating tax on incomes. We believe the money of the country should be kept as much as possible among the people, and we demand that all National and State revenues be limited to the necessary expenses of Government, economically and honestly administered."

The principles avowed in the above declaration, if adopted as a rule of governmental action, will do away with most of the evils of misgovernment.

## No Discrimination.

When one man forcibly thrusts his hands into the pockets of another and takes therefrom his purse, we declare it robbery. Now what is wrong individually cannot be made right collectively. No legislative body can have any moral right to enact laws whereby one class in the commonwealth may grow rich at the expense of other classes. Such laws, in their very nature, are despotic and oppressive.

The great Webster, in opposing in Congress the high protective tariff of 1824, said: "That with him it was a fundamental axiom that the great interests of the country were united and inseparable; that agriculture, commerce and manufactures must flourish together or languish together; and that all legislation is dangerous which proposed to benefit one of them without looking to the consequences that might fall upon the others."

The effect upon the general prosperity of the country, since the turmoil of war has ceased in

the land, occasioned by adhering to high tariff, has been such as to paralyze agriculture and commerce, proving the truth of Webster's fundamental axiom, and that the only way out of national embarrassment is, cease to adhere to the policy of class legislation.

## Income Tax.

The Order demands a graduated income tax. By that, I suppose, incomes exceeding a certain amount are to be taxed a certain percentage; and when the income reaches a certain increased amount, it shall be subject to a certain increased percentage, and so upward, the greater the income the greater the percentage. In this manner the necessity of levying heavy duties on importations of foreign goods for revenue purposes would not arise, and the taxes on the consumption of the country would be proportionately lessened. An income tax levied for support of Government would measurably lessen the amount of taxes otherwise required to defray governmental expenditure, and the wealthy would be required to contribute more than they now do, and I think justly too, to maintain government. By the adoption of a justly graduated income tax, the small property-holder would be relieved from much burdensome taxation. The burden of taxation would then fall upon those most able to bear it, and that is where I think it should fall.

## Limitation of Government Expenditures.

That governmental taxation should be limited to necessary governmental expenditures, is a principle which ought to meet the approval of every right-thinking mind. Has the Legislature in making State appropriations always kept this principle in mind? The answer to this query must be, it has not.

There is a widely prevailing idea that the Legislature of this State has power to make appropriations for any purpose it may deem proper. This is not true. "The general appropriation bill shall contain no item or items of appropriation other than such as are required to pay the salaries of the State officers, the expenses of the Government and of the institutions under the exclusive management and control of the State." (Constitution, Art. IV, Sec. 29.) Here we have declared what may be included in the general appropriation bill, excluding therefrom all special appropriations for particular purposes other than as above specified. "Nor shall the Legislature have power to make any gift or authorize the making of any gift of any public money or thing of value to any individual, municipal or other corporation whatever." (Constitution, Art. IV, Sec. 31.)

Thus we see the Constitution has clearly limited the power of the Legislature in the matter of appropriating the public money.

With such constitutional limits to the power to appropriate moneys, I fail to see how the Legislature can vote an appropriation of money to aid California to make a display of her products at the approaching World's Fair in Chicago. I fail to see how the Legislature can pension off superannuated school-teachers—a thing which, I understand, is contemplated in some quarters. Such a pension would be a grant of money to individuals, and is within the inhibited provision of the Constitution. The World's Fair holds its charter from the United States—a corporation over which the



COL. J. S. BARBEE, STATE ORGANIZER FARMERS' ALLIANCE.

State of California has no control whatever. Being such, it also comes within the constitutional inhibition.

Strictly construed, the Constitution inhibits the Legislature from granting appropriations to assist in maintaining county fairs, for they are organized by associations of individuals for their own personal benefit or amusement. From such exhibitions the mass of the taxpayers in the State

## Derive No Benefit Whatever.

It is unjust, therefore, to tax the community for their support. Besides, such laws are special in their character. Some industrial organizations in the State support themselves without State aid. There is no general law on the subject. The Constitution expressly prohibits the passage of special laws when general laws may be enacted. Our Legislatures have in the past acted as though they have unlimited power to levy taxes for any conceivable purpose, treating constitutional inhibition as having no signification or meaning whatever.

How important, then, is the declaration of the Farmers' Alliance that the governmental expenditures, both State and National, shall be prudent and economical in order that taxes shall be kept down to the lowest point consistent with the public safety and welfare. To this end, among others, the Farmers' Alliance is directed.

## God Speed It in Its Good Work.

I see no reason why the Grangers and every honest man should not join in the proposed reforms, or at least most of these proposed reforms.

The organization of the Farmers' Alliance now numbers millions, although, like Jonah's gourd, they seemingly have sprung up in a night. They have already proved themselves such a power in the land that old party veterans stand aghast as they contemplate the exemplification already made by this now powerful organization, and in fear and trepidation they cry out,

## What Next?

Another great blessing is likely to grow out of this National Farmers' Alliance—the meeting of the people North and South in one homogeneous whole. Political animosities and sectional strife will cease. There will be a union of hearts and a union of hands. North and South, East and West, will exist only as geographical divisions, but all inhabited by one united and happy people, with none to molest them or make them afraid.

**COLUSA COUNTY ALLIANCE.**—At the quarterly meeting of this Alliance, at Arbuckle on Jan. 6th, Sec'y Poundstone resigned that office and T. J. Shellhammer was elected to fill the vacancy. The Williams Farmer offered two columns' space, weekly, for the publication of Alliance matters. The offer was accepted and the Farmer made the official organ. It was voted that the next quarterly meeting be held at Williams on Monday, April 6th, at 1 P. M.

**RESIGNATION NOT ACCEPTED.**—At the last meeting of Long Beach (Los Angeles Co.) Alliance, President H. C. Dillon tendered his resignation, but the members, by a unanimous vote, declined to accept the same, and await the decision of the National Alliance on the subject.

## State Farmers' Alliance Executive Committee Meeting.

This body held its first quarterly session at the rooms of the State Board of Horticulture, 220 Sutter street, during Monday, Tuesday and Wednesday of this week, meeting three times a day and giving close attention to business.

There were present members of the Executive Committee:

Jno. S. Dore (Pres.), Fresno; E. M. Wardall, Monrovia, Los Angeles Co. (V. Pres.); Jesse Poundstone, Grimes, Colusa Co. (Sec'y Ex. Com.); Jas. Morgan, Santa Barbara; David Reed, Monterey; also, among Alliance visitors, at different times during session, D. C. Vestal (Delegate to the National Alliance), J. M. Moore (State Agent), J. L. Gilbert (State Lecturer), C. W. Pedlar (Sec'y State Alliance), J. W. Hinee (General Organizer), S. P. Sanders, Frank Dunn and J. C. Drew.

The following condensed items furnish an inkling of the transactions up to the time of our first forms going to press, on Wednesday:

A paper on ramies was read by Professor Shinn of the State University. Specimens of the live plant, together with some of the fabrics manufactured from its fibers, were exhibited.

A motion was adopted permitting the sub-Alliances to purchase their supplies direct from the State Business Agent, where such a course would accrue to their advantage.

A resolution was unanimously passed, providing that each sub Alliance throughout the State shall be allowed to purchase articles required through the State Business Agent direct instead of through county agents appointed by the Alliance. Connected with each County Alliance is an agent who, through the State Agent, secures for members any implement or other article required in farm use at reasonable rates. By dealing direct with the State Agent much time is saved, especially in a large county where a sub-Alliance is situated at some distance from the main body.

J. M. Moore, the State Agent located in this city, gave a satisfactory report in regard to the amount of work done by him of this character.

During the present session of the committee, which it is expected will last two or three days longer, the Legislature now in session will doubtless be called upon to indorse certain measures advocated, notably the Australian Ballot system, having taxes collected twice a year, and also a question in connection with Nicaragua canal. Other subjects of interest to and for the benefit of the farmer will be called to the attention of the Legislature.

The meeting listened to addresses made by I. D. Neilson and Alexander Sutlun, a committee from the Boot and Shoe Makers' White Labor League, explanatory of the grade of goods in which the league deals, showing the difference in the white labor work of this State, the Chinese and the class of goods known as the Eastern. In response to the appeal of the committee that the Alliance should take some action in the matter, a resolution was passed, recommending an early conference with the State business manager with a view of settling the preliminary steps necessary to be taken, and that under his direction the Alliance will use all possible means to aid in extending the work of the league.

The committee also resolved that it should incorporate in order to secure for itself a legal status for the making of contracts and the transaction of such general business as may be deemed necessary for its well-being.

Resolutions were adopted urging the Legislature to pass an Enabling Act for Farmers' Mutual Fire Insurance Companies.

Hon. Thos. McConnell (of the Executive Committee of the State Grange, P. of H.) briefly exchanged views with the Committee on Important Objects of both associations in a fraternal manner.

Resolutions were passed making the PACIFIC RURAL PRESS the official organ of the State Alliance, commending the *Pacific Union* and *Monache Tidings* and *Farm View* for faithful services.

Further proceedings will appear in our Grange edition.

## Col. J. S. Barbee.

We publish this week an engraving of Col. J. S. Barbee, the State Organizer of the Farmers' Alliance and Industrial Union. Col. Barbee is a resident of Santa Barbara county, having arrived in this State in 1872. He was born in 1833, in Virginia, where he remained until his removal to this State. The colonel acquired his title while wearing the "gray" in the great rebellion, and like others who laid down their arms at the close of that conflict, did so with the firm resolution to accept the Union as it was and to strive to make it a union in deed as well as in name.

Col. Barbee is a man of very pleasing appearance, genial, warm-hearted, frank, and a close friend of the toiling masses. Prior to the establishment of the State Alliance, Col. Barbee bore almost the entire work of organizing the different Alliances throughout the State.

Col. Barbee served on important committees at the late National Alliance session at Ocala, Florida, and since his return to Santa Barbara, is again heard from in the work of the Alliance. He seems greatly endeared to its members throughout this and other States, where he has been the leading and pioneer organizer,





## Threnody.

Watching here alone by the fire whereat last year  
Sat with me the friend that a week since yet was  
near,

That a week has borne so far and hid so deep,  
Woe am I that I may not weep,  
May not yearn to behold him here.

Shame were mine, and little the love I bore him  
were,  
Now to mourn that better he fares than love may  
fare,

Which desires and would not have indeed its will,  
Would not love him so worse than ill,  
Would not clothe him again with care,

Yet can love not choose but remember, hearts but  
ache,  
Eyes but darken, only for one vain thought's poor  
sake,  
For the thought that by this hearth's now lonely  
side

Two fast friends, on the day he died,  
Looked once more for his hand to take.

Let thy soul forgive them, and pardon heal the sin,  
Though their hearts be heavy to think what then had  
been,

The delight that never while they live may be—  
Love's communion of speech with thee,  
Soul and speech with the soul therein.

O my friend! O brother! a glory veiled and marred!  
Never love made moan for a life more evil-starred,  
Was it envy, chance or chance-compelling fate,  
Whence thy spirit was bruised so late,  
Bowed so heavily, bound so hard?

Now released, it may be—if only love might  
know—  
Filled and fired with sight, it beholds us blind and  
low,

With a pity keener yet, if that may be,  
Even than ever was this that we  
Felt, when love of thee wrought us woe.

None may tell the depths and the heights of life and  
death,  
What we may give thee: a word that sorrow  
saith,  
And that none will heed save sorrow; scarce a  
song.

All we may, who have loved thee long,  
Take: the best we can give is breath.  
—Algernon Charles Swinburne.

## A Town Day and a Farm Day.

My Letter to Emily Ransome and her  
Reply.

[Contributed to the RURAL PRESS by L. H. S.]

## FOURTH PAPER.

SAN FRANCISCO, September, 1881.

My dear Emily:—I've been such a long time  
answering your last letter; but you can't ex-  
pect anything else, for I hardly have time to  
take up my pen from one week's end to another.  
I have sole charge of the house now, and it is  
an experience for me that teaches me the value  
of time I never have—time for reading, Bible  
study, and good solid talks with good solid  
friends.

Grandmamma in Los Angeles with Uncle  
James has been very poorly, and mamma has  
been down now for six weeks.

Such a time as I have had running this house,  
for it all has to be done just so, you know, to  
suit father and fastidious brother Albert.  
Nora is a faithful servant and we keep her on  
that account, but she cannot do much out of  
the kitchen, and there are many things she can-  
not do in it.

Now to-day is a fair sample of how the time  
gets away with me. As soon as I opened my  
eyes I thought of the fish papa had brought  
home the evening before, and I had forgotten  
to tell Nora what to serve with it. She has no  
French sense of what things go together, and I  
have to watch her constantly. So I drew on  
an old wrapper and hurried down. Nora had  
a headache and was as cross as could be, so to  
avoid trouble I made the toast and set the  
table. I could as well have done it all, but  
you have to keep a servant in town for looks'  
sake, even if she is not much help.

The dining table was covered with books and  
papers from the evening before, and by the  
time I had placed the room in order the muffins  
and omelettes and things were ready, and I  
had to rush upstairs to fix my hair and change  
my wrapper for breakfast. I have an elegant  
tea-gown to wear to breakfast, but it is so long  
behind and so tight in the waist and so loose  
in the sleeves that I can't wear it in the kitchen  
at all. I always have to dress twice mornings.  
Albert was at my door with two buttons off  
his business coat, and I came very near being  
too late to serve the coffee; but I sailed in just  
as papa laid down his paper, and the toast  
was elegant and everything was all right.

After breakfast I had a long discussion with  
Nora about the rice for lunch. I know that  
rice can be cooked delightfully with raisins in  
it, but Nora always objects.

After I had carried my point, I removed my  
tea-gown, cleaned the silver and dusted and

rearranged the sideboard; then came the  
grocer, the ice-man, the butcher, the baker and  
the vegetable Chinaman. They came about five  
minutes apart and I had to go to the back door  
to see each one.

Notwithstanding we have "no peddlers" on  
our front steps, half a dozen nondescript fellows  
called, and, as I have to tend the door fore-  
noons to save Nora, it was lunch-time before  
my morning duties were all over.

Papa and Albert came home to lunch, so I  
had to dress again. Lunch was lovely, thanks  
to my watching of Nora, and I ran upstairs  
after lunch, hoping to have two hours to my-  
self before it was time to go to the W. F. M.  
S. It was a vain hope, for between one and  
three o'clock there were four callers of the ac-  
cidental order, it not being my regular day at  
home.

Old Mrs. Stone was so anxious about grand-  
mamma that she staid nearly an hour. The mis-  
sionary meeting dragged out its slow length  
till five o'clock, and I reached home just in  
time to see that our dinner-table was in order  
before papa came in.

We sat at table till nearly seven, then Char-  
ley Jones happened in with his violin. I knew  
what he wanted. I was doomed to play ac-  
companiments for an hour or so. Albert has  
no patience with my musical friends, so he slid  
off up-stairs. Charley had the goodness to go  
at eight, and papa seemed so lonely I sat down  
to comfort him awhile. In a few minutes the  
bell rang, and there were the Wilson girls,  
who never have any heaur, and have to do  
something to amuse themselves, and they ran  
in unceremoniously to chat and chat and chat  
about nothing in particular. They managed to  
drag themselves away at ten, and I came up to  
my room tired all over, but I was determined  
to write you this note, dear Emily, as I had  
promised, for I know you must be lonely so far  
out of the world; and it must be stupid to  
board with a woman who does her own work.  
But that is all you can expect in the country.  
Keep up your courage and write often. Your  
loving

ROSE.

LOVE TREE DISTRICT,  
FRESNO CO., September, 1881.

Dear Little Rose:—I am truly sorry for you.  
Your history of a day makes me like the coun-  
try better and better. I told Mrs. Granger of  
my agreement with you, and she was willing  
that I should follow her about one Saturday to  
see how she managed her work and spent her  
day, provided that I should not converse with  
her in the kitchen so as to interrupt her meth-  
ods of work. There is usually not much work  
on the farm at this time of year, but Mr.  
Granger, always fore-handed, has one man  
hauling wood from the hills and one hauling  
straw, he himself helping with the straw, so  
that Mrs. Granger has five adults to cook for  
besides Johnnie, nine years old.

I was awakened at six Saturday by the sound  
of the coffee-mill, and I hurried down to begin  
the day with my hostess. I found her in her  
room neatly dressed in washable goods.

"While the stove is heating up," she said,  
"I brush out our bedroom, put the bedclothes  
to air in the window and place the room in or-  
der. It takes but a moment, and it is so sweet  
and fresh to come into after awhile."

We passed out into the kitchen. I noticed  
in the dining-room that the table had been set  
overnight for breakfast and was covered over  
with a drapery of good cheesecloth bound with  
red.

The stove was hot, Mr. Granger having put  
the coffee to simmer on the back of the stove,  
and the potatoes were already in the oven,  
having been put there the night before.

I cannot tell you how swiftly and skillfully  
she prepared the breakfast. When she went  
for the mush-kettle, she brought all the cook-  
ing pans she needed. When the water was  
heating, she brought the milk and cream. She  
seemed to be all hands and not a stroke was  
lost. In twenty minutes breakfast was ready,  
and we sat down, hired men and all. This  
might horrify you, Rose, but it does not me.  
The hired men were perfect strangers to Mr.  
Granger, but they seemed to appreciate re-  
spectable privileges. They ate properly and  
said nothing, and we went on with our light  
table-talk unannoyed. It is the simplest way  
of obviating a difficulty. Some of the hired  
men here are gentlemen and it pays to treat  
them all as gentlemen.

After breakfast, Mrs. Granger piled up the  
dishes and covered them. She put her pantry  
in order, skimmed the milk and set Johnnie  
to burning. I noticed that there was something  
simmering on the stove, "To use up the fire," she  
said. Then in a moment she was off with the  
broom and duster. I found that it was her  
custom to do all her sweeping and dusting  
necessary before finishing the kitchen work.  
She said: "I like to feel that everything is  
neat and in order before I put my hands in the  
dishwater or the flour. It gives me a clear  
head for the after work. It gives me a sense  
of ease and pleasure even when the work is  
hard, and then when the noon meal is over the  
work is done."

This morning the work was all over at nine  
o'clock.

"Now I am going on the warpath—setting  
hens! Won't you come?"

I followed her all through the sheds and the  
great barn full of fragrant hay. We found the  
lazy old hens sitting on fresh eggs, who suffered  
us to carry them away as prisoners; but two  
young Spanish hens flew all over that barn  
with the most hostile demonstrations. She

calmly destroyed the nests, and after a tour  
around the great fresh straw-stacks in search of  
fugitive nests, we came back to the house re-  
freshed by our business outing.

After this, Mrs. Granger retired to her room  
with a book.

"Be my work ever so hard, it pays me," she  
said, "to rest an hour or so with a book each  
day. It is an economy of time and strength,  
because I am twice as active and skillful after  
my rest."

At eleven o'clock a fire was built and dinner  
was served at 12:15 promptly. I noticed by  
watching that Mrs. Granger had a method of  
order and execution peculiarly her own, and  
that it was something I could not learn, nor  
could she impart it to me. Her best secret was  
that she gave her entire attention to her work,  
and by concentrating herself moved out of it  
the more rapidly. Although ease and dexterity  
in housework is an original talent, yet I think  
it might be brought out and taught as a science  
by itself. It certainly is the key to a great  
deal of happiness.

Saturday afternoon on this farm might be  
lonesome for you—not an interruption within  
or without. Mrs. Granger sewed or rested and  
I read aloud from the magazines and papers. At  
five o'clock we tied on our bonnets and took  
another walk after eggs. We had a light sup-  
per, and afterward we all sat out on the porch  
to enjoy the cool dusk and the dawning moon-  
light.

I arose, intending to withdraw and leave the  
family alone together. Mr. Granger called me  
back.

"We would like to have you remain and  
meet some of our friends—just the minister and  
a few neighbors; stay and see what manner of  
men we are anyway."

Just a quiet, informal gathering—several  
farmers and their wives. There was no at-  
tempt at entertainment, no recitations, no solos,  
no essays. Their interests were common and  
there was plenty to talk about—a little politics,  
a little temperance, a dash of gossip, a season-  
ing of religion; they talked about raisins and  
prunes, and olives and the markets of the East,  
and the great open questions of the day, till I  
felt more humble than ever with only my nar-  
row and technical work in the schoolroom. These  
people are unassuming in their deport-  
ment, but they are grand in their ideas.

I think Mrs. Granger lives better than you,  
dear friend, though she is "far out of the  
world" and does her own work.

When your mother comes home, you must  
come down here and enjoy a season of rest and  
profit. Yours faithfully, EMILY RANSOME.

Our Chosen Representative at Flora's  
Court.

The Golden Poppy of California.

[Written for the RURAL PRESS by ISABEL DARLING (LUPA).]

There was questioning and consultation and  
inspection of dainty treasures, to decide what  
one of California's blooming beauties should be  
adopted in the form as it had already been in  
spirit—one peculiar to and characteristic of  
locality and inhabitants. But how needless  
was the delay and doubt, when the favored  
could be no other than the *California Poppy*—  
the flower which, here and nowhere else, riots  
in the moistened soil of the river bank, sits  
complacently on the drier hillside and contends  
with the growling wheat for the possession of  
the field!

It has been called frail. It is not frailty but  
the lavishness of generosity, the indifference to  
oost and sublime faith in the future so essen-  
tially Californian, and in such striking contrast  
to the season-long clinging to one fading blos-  
som of other plants and other men.

Earth smiles with a hint of hidden gold  
through its mounds of fernlike leaves with  
their marvelous length of outline showing, in  
their tracery and infilling, heedlessness as to  
necessities, to material, or to the flight of hours  
in this land where Time himself almost forgets  
the hurrying seasons measured out to other  
olimes, and the beauties of the unseen land  
grow more real as the glow of summer sun-  
shine nestles in these spreading howls.

Roh the plant at nightfall of its golden  
beauty, then sleep the sleep of triumph; but  
again, when the sunbeams dance about its head,  
it will fling to the winds its sheltering caps and  
you will almost listen for its glad huzzas for  
freedom.

Ten to one, it is said, as compared with East-  
ern cities, does "Our Own" toss to the world  
its daily printed pages; so might we fancy  
these open, generous petals to be tablets full  
of messages from the flowers' Wonderland,  
messages which we are yet too blind to see, too  
dull to comprehend, records of that blossom  
life which is the spirit of the mineral, the cap-  
tured soul of this Land of Gold.

"ARE you—?" said the customer, hesitat-  
ingly, to the haughty young woman at the glove  
counter, who kept her eyes fixed on a spot  
three feet above his head.

"Well?" inquired the haughty young  
woman.

"Are you the proprietor of this store?" asked  
the customer.

"No, I'm not," replied the haughty young  
woman.

"Ah," continued the customer, "I thought  
as much. The proprietor would likely try to  
sell me a pair of gloves, perhaps."—*Chicago  
Times.*

## What the Chimney Sang.

Over the chimney the night-wind sang  
And chanted a melody no one knew;  
And the Woman stopped, as her babe she tossed,  
And thought of the one she had long since lost,  
And said, as her teardrops back she forced,  
"I hate the wind in the chimney."

Over the chimney the night-wind sang  
And chanted a melody no one knew;  
And the Children said, as they closer drew,  
"'Tis some witch that is cleaving the black night  
through—  
'Tis a fairy trumpet that just then blew,  
And we fear the wind in the chimney."

Over the chimney the night-wind sang  
And chanted a melody no one knew;  
And the Man, as he sat on his hearth below,  
Said to himself, "It will surely snow,  
And fuel is dear and wages low,  
And I'll stop the leak in the chimney."

Over the chimney the night-wind sang  
And chanted a melody no one knew;  
But the Poet listened and smiled, for he  
Was Man, and Woman, and Child, all three,  
And said, "It is God's own harmony,  
This wind we hear in the chimney."  
—Bret Harte.

## Cookery Continued.

[Written for the RURAL PRESS by MRS. FLORENCE G.  
EMERSON.]

EDITORS PRESS:—I have read with interest  
the discussion in your columns upon cook-  
ery. This is a very important subject—one  
that has a diversity of opinion. Some ladies  
take great pride in the art, while others claim  
they dislike it exceedingly. They think it de-  
grading, together with other kinds of domestic  
labor. They truly need our sympathy for  
their lack of good sense. Do these ladies ever  
think who has been their cook for years but a  
kind, tender and loving mother. How impor-  
tant that they should be taught all the branches  
of domestic labor and learn to be useful, prac-  
tical, self-reliant and independent! Young  
ladies, think of this all-important subject.  
Be kind and helpful to your parents and guard-  
ians, who have done much for you. Be inde-  
pendent and help yourselves. Cooking in my  
opinion is the best and most useful accomplish-  
ment that a woman can possess. Who could  
live without cooks? We are as dependent  
upon them for our existence as we are for the  
air we breathe. We should think it an honor  
to be a first-class cook and take just pride in it.

I fully believe in a thorough knowledge of  
anatomy, physiology and hygiene, also many  
other of the sciences that are brought into  
practical use. Music, too, is almost indis-  
pensable in the home. It is elevating, purify-  
ing and charming to our natures. Painting,  
embroidery and various kinds of fancy-work  
are very pleasant to engage in, but should not  
occupy our time until the more useful branches  
of labor are learned. All kinds of useful labor  
are honorable, and so regarded by every intelli-  
gent mind.

Learn to be a true helpmate, a kind and lov-  
ing companion for some good and noble young  
man. There are many young men at the pres-  
ent day who are meditating upon the subject  
of matrimony. They do not seem to be as en-  
thusiastic upon the subject as our fathers and  
grandfathers were fifty and seventy-five years  
ago. What is the reason? I think I can tell  
you. It is because there are so few young  
ladies who are prepared to be a real helpmate  
to a young man. Ladies, look back 50 years  
and see how your grandmothers commenced  
life. I know of many who were educated in  
all the household duties that are required to  
make a wife a good helpmate as well as a true  
and loving companion. This is the kind of a  
wife that most young men need and want at  
the present day, for but few have ample means  
to support themselves and families without  
labor. What intelligent lady is there who  
would have her husband toil daily, from early  
morn to set of sun, to support her in idleness?  
There should be none. Idleness is a disgrace.  
Industry is honorable and gives us health,  
wealth and happiness, the blessings we most  
desire.

Young ladies, practice domestic duties; en-  
courage young men to abandon saloons and  
cigars, and you will do a worthy and noble  
work.

A LADY of rank consulted Abernethy, in  
great distress, about her daughter, and the doc-  
tor began the investigation of the case by  
asking:

"Why, what ails her?"

"Alas! doctor," replied the mother, "I can-  
not tell; but she has lost her spirits, her beauty  
and her appetite, and seems to be wasting away  
every day, and we are fearing that she cannot  
live."

"Why do you not get her married?" said  
Abernethy.

"Alas! that we would fain do, and have  
offered her as good a match as ever she could  
expect."

"Is there no other that you think she would  
be content to marry?"

"Yes, doctor, that is what troubles us,  
for there is a young gentleman we doubt she  
loves that her father and I can never con-  
sent to."

"Why, look you, madam," replied Aber-  
nethy, gravely, "then your case is this: Your  
daughter would marry one man, and you  
would have her marry another. In all my  
books I find no remedy for such a disease as  
this!"



## Pretty Women.

The woman who is pretty is far too liable to think that that is enough; she will conquer her kingdom by means of it; and when the day of reckoning, the day of fading comes, the kingdom will be already hers by right of possession. Indeed, she does not consider the day of fading; it is something as difficult for her to realize as death itself is to the young; it is far off, vague, all but impossible; how is she ever going to look other than she does now and still be herself? And at any rate, there are always the means to make the repairs of beauty, and sufficient unto the day is the evil thereof. And so, in an average of more than half the instances, she goes dancing off about her pleasure like a fly in the sun, as full of the present, as careless of the future. She makes no preparation for the impending fate which is sure to come to her. If she live long enough; she relies on her fair face, her blushes, her dimples, her radiance, her smiles, her glances, her sweetness. To please, to attract, to marry, to marry well, is the mark she has set before her; and it does not need cultivation of the sterner virtues for that; the sterner virtues are not greatly called into account in this quest, have little opportunity of asserting themselves, or even of being missed.

Nor is great intellectual cultivation in the scheme of our pretty woman's life; according to her plan of action it is entirely unnecessary. Who cares for syllogisms, lectures, instructions? she unconsciously argues from rosy lips. Who will stop to ask if the bright eyes have dulled themselves over dry pages of scholastic lore? Let who will be learned, it is enough for her to be gay and happy.

What, then, has our pretty creature left for the dim passages of middle age, when beauty has fallen away, but there is still left the desire to hold captive what once beauty gained? The time is coming when there will be deep crescents around the mouth whose lovely curves have been dragged down by flaccid muscles, when there will be fine, spider-web lines about the eyes, when there will be hollows in the cheeks, when the red and white of the skin will have become blurred and mottled, or overlaid with yellow sallowness, when perhaps there will be present in the vacuous face only "that divine smile which has lost the two front teeth!"

Let the pretty girl remember that in the darkness of that middle passage the beauty that she had before she entered it will not signify; all faces are in the dark together then, the girl that was plain with the girl that was beautiful. The wreck of beauty signifies then no more than the wreck of what never was beauty. It is the sweet voice, the kindly manner, the burden of what is said, the tender-beativeness of what is done, that tells with any effect then. It will not be long before she arrives at this time, which, in comparison to the blaze of youth, neighbors close on the dark; and she will need then all with which she can have filled her intellect and fed her soul, all that wit and virtue and breeding can have given her, in order to retain anything of that kingdom to which in the early days she felt herself born by right divine.—*Harper's Bazar.*

## Chaff.

THE following written definition of the word bachelor was banded in by a fifth-grade boy: "A bachelor is a man who has no wife nor wants no wife nor can't get no wife."—*Luling Signal.*

"Lor', chill! what you chewin' dat flon-bar! top fur?" "Be still, honey. De Jerns'-lem band has bare annual fair nex' week an' given a prize fur de bes' pie-eater. I'm a practi-in' fur dat 'caslon'."

ART NOTE—Do you want your wife's portrait in oil?

Grocer—Yes, I think that would be the best, particularly if you get the oil at my store. I keep none but the best.—*Siftings.*

JAGWAY—I don't see how a man can get along on only two suits a year.

Travers—Easy enough. For instance, I begin with my winter suit on the 1st of January, and wear it until the middle of March; then I put on my spring suit, and wear it until the 1st of June.

Jagway—Then what do you do?

Travers—I keep right on wearing it.—*Harper's Bazar.*

"Was your husband insured?"

"Yes, \$5000 in a mutual assessment company."

"Did you get the money?"

"I understand that I did. John was the only member in good standing at the time of his death, and the assessment fell on me. But I've got the money."—*Harper's Bazar.*

"That young Miss Newdle, to whom you were paying so much attention last evening, Leon," said his mother, "talks very ungrammatically." "Under!" exclaimed the young man. "She doesn't need to know anything about grammar, mother. She owns a gas well."—*Chicago Tribune.*

ARTIST (showing sketches)—Oh, that sketch is mere nothing; I did it ten years ago. I often laugh when I come across the things I did ten years ago.

She—And perhaps you'll laugh ten years hence over the things you do now. It's wonderful what a difference time makes, isn't it?

## YOUNG FOLKS' COLUMN.

## A Three-Legged Engine.

It was long after supper-time. I am sure of this, because Hannah had cleared off the table and gone into the kitchen to write a letter home, to Sweden; and there was no one in the dining-room excepting a mouse that was lazily picking up crumbs the baby had dropped. Besides all this, I know in another way, too; for the baby was fast asleep in his bed upstairs.

It is perfectly ridiculous for me to call him the baby, because he was really a big boy half-past five years old; but everybody called him that, so I must, I suppose.

Mamma came into the hall; and what do you suppose she saw there the very first thing? It was nothing more nor less than a big iron engine, with a red smokestack and only three wheels. It must have had four wheels one of those days, but now it just got along the best way it could on three. Now, that engine did not belong to the baby at all; and mamma guessed just right when she suspected her boy had taken it that very afternoon when he was over playing with Jim Boggs. I tell you what, mamma did not like that at all; so she started upstairs with all her might.

"Baby!"

But nothing stirred under the bedclothes.

"Ba-by!"

"Ump!"

"Are you awake?"

"Perhaps so: to-morrow."

"No, now."

By this time he was sitting up in bed, trying to rub his eyes open with his eight fingers and two thumbs.

Mamma was standing there with the candle, and looking just as savage as that particular mamma could possibly look.

"Baby, whose engine is that downstairs?"

"Yoc mean, mamma, the one with the red smokestack and only three legs?"

"Yes," said mamma, "that's the very one."

"Well, then," replied the baby, as he settled down into bed again, "that b'longs to Jim."

"Did he say you could have it?"

The baby thought for quite a long time, and then said: "Seems to me he didn't. I expect I just took it."

"Come," said mamma, putting down the candle, "you must get right up and take it back."

"But I haven't got any clothes on," said the baby.

"No difference," said mamma. "You can dress, and I'll stay here to button your shoes."

"Oh dear!"

But he had to do it, I can tell you; and when he came downstairs, there was the engine quite ready to be taken home.

"Have I got to go all alone?" And the little boy opened the front door and looked out. The lights were burning in the street; but, phew! wasn't it dark between them?

"I tell you what," said mamma, as her cold, stony heart softened a little at last; "I'll stay here by the window, and perhaps you can see me all the way over." Well, and so—oh, yes, then the baby clattered down the front steps; and after running straight into the big lilac bush at the corner of the house, and almost going head first over the big stone in the driveway, he looked around, and there was mamma, sure enough, standing and waving good-by.

"Pretty tough!" said the baby to himself; but he tramped on over the hill and down to the fence that ran across Jim's back yard. He crawled through and went on tiptoe up the steps to the door.

"Guess I'll just leave it and run home," said the little boy to himself; but he looked across, and there was mamma still standing in the window. "No, guess I won't," he said; and so he rang the bell. The minute the girl opened the door, he heard Jim crying almost like mad, way upstairs. "Here's Jim's engine, and I stole it; and I guess he's crying for that, and I'm sorry, and I'm going home."

And the next thing they saw was a little boy scurrying across the back yard, through the fence and over the hill. And I tell you another thing, too, that little chap did not stop till he was safe in his mamma's arms again.

"This makes two times that I'm gone to bed in only one night," said the baby. "And, mamma, I'm sorry 'bout that engine."

"That's all right now, my little man, and I don't believe all this will happen again."

"Well, I rather 'spect not."

So mamma leaned over and kissed him softly, for she saw his eyes were almost shut up tight.

"Had only three legs, anyway," said the baby, as he tucked the clothes close up under his chin and so fell asleep.—*New York Tribune.*

## The Little Chopper.

"He's the basffullest little fellow I ever see! And a miniat'ra boy, too; seems as if he'd get used to folks; but he don't."

That was what old Aunt Polly said about Willy Wisp; and everybody else said so, too.

There was to be a quilting at the parsonage one afternoon. The ladies' sewing circle had picked a red and white sunflower quilt for Mrs. Wisp, and were coming to quilt it. Willy heard his mother speak of it in the morning,

and diemay filled his little soul. How could he endure to meet all those ladies?

"Come and have your face washed, and your hair combed, and a clean collar on," said his mother, after dinner.

Willy snubbed, but as soon as his toilet was made, he asked:

"Mayn't I go out into the woods where Peter is chopping?"

"Why, yes; you may, if you won't get hurt."

"Oh, Peter'll take care of me," said Willy, and he slipped gleefully out at the back door, just as an army of ladies with scissors and thimbles came in at the front. When Willy reached the woods Peter was not there, but his ax was sticking in the log, so Willy felt sure he would soon come. He played around awhile, then thought he would try chopping. Climbing on the log, he managed to pull out the ax, swung it as high as he could, and brought it down on to his foot, cutting through shoe and stocking, and splitting his big toe well open.

The blood ran. Willy was scared. "I guess I had better go home," he said to himself. But it seemed an awful long way, and he was so tired he thought he could never take another step long before he got there. His toe hurt so, and he wanted his mother to do it up, but all those ladies were there, so he went softly in at the back door and up the back stairs to his mother's room, crawled into her bed, and weak and faint with loss of blood, went to sleep in a few minutes.

It was a warm afternoon and the quilts were thirsty. "I'll get you all some fresh water from the pump," said Patty Cram, and she started out. What were all those little bloody tracks on the doorstep?

Patty came back and told Mrs. Wisp. The whole company came out in excitement, followed the tracks up-stairs and until they found Willy, fast asleep, with his face almost as white as the pillow he lay on.

"He's dead!" exclaimed Aunt Polly.

"No, he isn't," said Susan Hobbs, putting her hand on his heart.

Patty Cram ran for the doctor, Mrs. Flint ran into the study for Mr. Wisp, somebody else ran for cold water, Mrs. Blossom fanned him with her elegant feather fan, while Mrs. Van Cott held her bartsorn bottle to his nose, and his mother rubbed him with camphor. The bashful little boy would have felt terribly if he had known how many ladies were at work over him.

He was soon better, and came out all right after awhile, but he will always carry a scar on his toe, to remind him of that day's chopping.

—*Portland Transcript.*

## GOOD HEALTH.

## Washing Out the Stomach.

During the past year, says the *Scientific American*, several physicians in New York have tried, with gratifying success, a novel treatment for dyspepsia and cancer of the stomach by washing out that organ. The process is very simple and not dangerous. A long, flexible pipe is passed down the throat until one end is in the stomach. The upper end has a funnel attached, into which hot water is poured until the stomach is filled. The weight of the water in the pipe and funnel gives a hydraulic pressure sufficient to distend the stomach. The pipe has an aperture big enough to hold a lead-pencil. After the stomach has been filled, the funnel end of the pipe is turned down until it is lower than the bottom of the stomach, and the stomach is emptied as a barrel of any fluid is emptied through a siphon. The process may be repeated several times. The result is that the undigested food and mucus are washed out, and the hot water closes the blood-vessels and reduces inflammation. The relief is immediate. The dyspeptic may have his stomach washed out before a meal, so that he can take a fresh start. After the lapse of sufficient time for ordinary digestion, the stomach may be washed out again. This process has been in use at the New York Hospital, we are informed, for some time.

A physician of this city has been trying this washing-out process for cancer in the stomach, but without any success whatever. A cruel and useless blistering process was also employed. Between the two, the patient is well-nigh "used up;" but she will get relief from unnecessary torment, if not from the cancer itself, by the mild treatment she is now receiving from our San Francisco cancer specialist.

HOW TO ESCAPE MALARIA.—"You people who are afraid of malaria—and it is a good complaint to be afraid of—have some strange ideas about the disease," said a physician. "You think that if you climb a mountain and build there, or that if you live on the slope of a hill where the drainage is perfect, you are safe. Then counting on this, you sit around in the evening air with no covering on your head, or you sleep with a window so near the head of your bed that a current of damp air blows over you all night. Finest way in the world to catch malaria. Personally, I believe that if I had only two chances—one living in the center of a salt marsh and the other of living one mile from the edge of the marsh on sloping ground—I should take the marsh every time. I admit, however, that there are very many people who do not agree with this opinion. But to come

back to our first proposition—cover your head when you are out of doors after dark, no matter how mild the air seems. Young girls who at summer resorts rush from a hot hall-room to open verandas, take their lives in their hands. Most of them are so wildly reckless that it is a wonder they live through one season."

CAR SICKNESS AND EYE STRAIN.—Considerable has been said of late in regard to "car sickness." A medical practitioner recently wrote in this connection as follows: I should like to call attention to car sickness in connection with eye strain. I have had eight or nine cases of this kind, all of which were relieved by glasses. One case was that of a gentleman who every journey had car sickness. While he had the mydriatic in his eyes he went to Washington and suffered no inconvenience whatever. Subsequently, after he had glasses, he made a trip to St. Paul without any of the former trouble. Recently I have had two cases—one that of a girl who could not ride a short distance in the street-cars without vomiting. I found a decided degree of hyperopic astigmatism. With the mydriatic in her eyes, she rode home without her usual trouble. A strange thing with reference to eye strain is that it often exists to an exceptional degree without showing any symptoms in the eye. The patient will often say that the eyes are perfectly good and have never caused any irritation. The reflexes seem to have settled in some other place. This is an interesting pathological and physiological question.

NO PUTREFACTION IN DEEP-SEA WATER.—Dr. Regnard has raised the question in one of the medical journals as to whether a corpse which sinks to a very great depth is preserved indefinitely or otherwise from putrefaction. According to his researches, which have been published at some length in the archives of the Biological Society of Paris, putrefaction is not found to take place in decomposable substances submitted to a pressure of 900 to 700 atmospheres; these figures corresponding to a depth of 9000 or 7000 meters at sea. From these experiments it must be concluded, according to Dr. Regnard, that there is a total absence of putrefaction in the greater depths of the sea.

## DOMESTIC ECONOMY.

RIBBON CAKE.—One half cup of butter, one cup of milk or water, two of sugar, three of flour, three eggs, one teaspoonful cream tartar, one-half of soda; beat well. Take one-third of the mixture and one half cup of flour, one egg one large spoon of butter. Beat well, then add one cup raisins, stoned and chopped; one cup currants, one-half nutmeg, one teaspoonful cinnamon, one-half teaspoonful mace, and spice to taste. Put the cake in the middle; bake in jelly-cake tins. If desired, soft frosting may be used between layers; or jelly, just as you prefer. This is not an expensive cake, and will be found very good.

APPLE PIE.—Line a deep plate with plain pastry. Pare acid apples, greenings are best, and cut in thin slices. Allow one cupful of sugar and quarter of a grated nutmeg mixed with it; fill the pie-plate heaping full of the apple, sprinkling the sugar between the layers; it will require no less than six good-sized apples. Wet the edges of the pie with cold water, lay on the cover and press down securely, so that no juice may escape. Bake three-quarters of an hour or a little less, if the apples are very tender. No pie in which the apples are stewed beforehand can compare with this in flavor.

RHODE ISLAND JOHNNY CAKE.—Put one pint of white table meal into a bowl and add gradually one pint boiling water. The meal must be moist, without being wet. While the meal is warm, add two ounces butter, one tablespoonful sugar, one teaspoonful of salt. Now add one pint of cold milk, the yolks of three eggs, well beaten. Stir in one half pint flour, and then the well beaten whites, with one heaping teaspoonful of baking powder. When thoroughly mixed, bake at once on hot griddle.

JELLY TRIFLE.—Cut up into inch cubes, enough sponge cake to make two layers on the bottom of a shallow dish. Soak one-half package gelatine one-half hour in one-half pint of cold water, then add one-half pint of boiling water and stir until dissolved. Add one-half pint sherry or other good wine, sweeten to taste and flavor to suit. When it begins to thicken, pour it over the cake and set in refrigerator to harden. Serve with nutmeg and with cream sauce.

CREAM CAKE.—One cup of sugar, one-half cup of butter, three-fourths cup of milk, two eggs, beaten separately, 1½ cups of flour, 1½ teaspoonful of baking powder. Bake in three layers. Cream for filling: One half pint of milk, one teaspoonful of cornstarch, one egg, one teaspoonful of vanilla, sweeten to taste. Heat milk to scalding, in which cook the cornstarch stirred smooth in a little cold milk, add the eggs last, flavor and spread when cold.

CHICKEN CROQUETTES.—Mince chicken as fine as possible, season with salt and pepper; add a cup of the liquor it was boiled in, three well-beaten eggs, large tablespoon butter or cream. Stir together and take a tablespoonful or more of the mixture and form into any shape; dip in yolk of egg and then in cracker crumbs, roll lightly in your hands and fry in boiling lard.



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## Business Announcements.

[NEW THIS ISSUE.]

Cultivators and Trucks—San Jose Agricultural Works.  
Olive Trees—L. A. Mitchell, Oakland.  
Planes—Matthias Gray Co.  
Trees, Etc.—California Nursery Co., Niles.  
Fig Trees, Etc.—M. Denicke, Fresno.  
Poultry—S. W. Palin, Galt.  
Aplarian Supplies—Mrs. J. D. Enas, Napa.  
Spray Pump—Wm. Stahl, Quincy, Ill.  
Louden Machinery Co., Fairfield, Ia.  
Pacific Roll Paper Co.

See Advertising Columns.

## The Week.

Light rains, southerly winds, and the promise of a storm are the chief encouraging features in air and sky as we go to press on Wednesday evening. The rule of north winds and frosts has continued long enough. Very short and weakly growth has been the result both in grain-field and pasture, though in the interior vegetation is said to be more forward than in the coast hills and valleys. It has been a good winter for field work, and a great deal of sowing and planting has been done. Now it would be fun to sit under cover and see things grow.

The citrus fair in progress at Marysville exceeds all anticipations in extent and excellence. Our special reporter will be heard from next week. The Legislature is struggling with a greater mass of bills than ever introduced so early in the session before. Senator Stanford has been elected to succeed himself as U. S. Senator. The reports from the scene of the Indian trouble in Dakota promise peace.

## The Wet and Dry Seasons of California.

For half of the year or more, the people of California are apt to pay little attention to the subject of meteorology. They meet and salute each other without making, as at other times, any allusion to the condition or prospects of the weather. The period during which the weather causes such little concernment covers what is here known as the dry season of the year, extending usually from about the middle of April to the middle of November, during which the rainfall hardly ever exceeds an inch or two, it sometimes amounting to less than a single inch.

But if, during these seven months, we so dismiss this weather topic wholly from our thoughts, it does none the less occupy them largely for the other five months of the year, which we designate the wet season. Any rain falling here between the end of May and the middle of October is generally deprecated, as causing more harm than good. On the other hand, any great delay in the commencement of the wet season, or the occurrence of a protracted drought after its advent, is here equally to be dreaded, because of its injurious effects on most of our leading industries. Such condition hurts alike the business of mining and of farming, owing to the water supply being insufficient for their successful prosecution.

But while so much mischief inevitably comes of a winter drought, any great superabundance of rain works at this season equal harm, the flooded rivers sweeping away the miner's mills, dams, ditches and other plant, and so saturating the ground with moisture that plowing and seeding are delayed and the growing crops more or less damaged, they being sometimes wholly drowned out.

And thus the winter or wet term becomes in California a season of constant anxiety and conjecture, every class thinking and talking about it, because all are interested in the way it shapes. About mid-autumn it is the wont of the weather-wise among us to begin speculating as to the probable character of the coming winter, these speculations being based on a variety of facts or supposed facts, such as the movements of the wild fowl and other migratory birds, the habit of the woodpecker and the ground hog, the flow of the springs, etc.

Strangely enough, these weather prophets never agree in their conclusions. Professing to be guided by the same signs, they either see these differently or put upon them a different construction, about one-half of them every year prognosticating a wet and the other half a dry season. Going back only a few weeks, we find these people thus divided in opinion, one set foretelling a wet and the other a dry winter, neither of which predictions has thus far come to pass, the weather having been marked by neither extreme. Up till this time the winter has in fact been an exceptionally favorable one. We have everywhere had enough rain and nowhere too much. The meteorological conditions could hardly have suited us better had they been prepared to order. Though a little tardy, the rains, since they commenced, have been well timed and adequate, the grass and early-planted grain, though retarded by frosts, have started into life, while plowing followed by sowing has everywhere been made possible. The flow of the rivers has been so increased as to improve navigation and afford the miners an abundant supply of water, the rise in the mountain streams having at the same time been so slight as to greatly prolong the working season of the river-bed miners.

But while the present has so far been a model winter, being as yet not half over, there remains, of course, a chance that a damaging drought or a damaging flood may occur before it is ended. As far as it has gone, it tends to discredit the vaticinations of these weather oracles and to such extent impair confidence in their ability to divine the future conditions and movements of the meteorological elements. There seems, in truth, to be no infallible or even tolerably safe rule whereby these things can be foretold.

As regards our summers, it is otherwise. It takes not much of a prophet to foresee what will be the general character of one of these. The wet season over, we have for the next six months the little need for the signal service or that part of the almanac that speaks of meteorological changes. The rubber coat and the gum

boot are now relegated to the lumber-room. The umbrella, the possession of which could before be maintained only by the greatest vigilance, may now be safely left in any exposed place, no other article being so little coveted because no other is so little needed. The street-sprinkler must now work without intermission; not here, as in most other countries, may he remain half the time idle. We dry our green fruits largely in the sun and make salt in the open air, and not, as elsewhere, in vats protected by sliding roofs that may easily be run over when the rain comes on. The farmer stacks his sacked grain in the field and there leaves it till he cares to haul it away or the near approach of the rainy season makes this necessary.

The foregoing, while they include some of the more notable, comprise but a small part of the benefits incident to the calm, rainless summers of California; nor are our mild and open winters without their advantages; outdoor work during this season goes on with little interruption. Planting, plowing and seeding are everywhere successfully prosecuted, mining and lumbering, except in the higher mountains, receive no check, this being, in fact, with most of our leading industries the most busy season of the year.

## Bogus Fertilizers.

Interest and investment in fertilizers for horticultural uses are just beginning in California, and it is exceedingly important that they should start right. Already certain things have transpired which indicate that the use and trade in fertilizers are not opening in this way. There has been complaint from many who have purchased small lots for trial that no satisfactory results have been realized. They have not been able to see that the money they expended in this direction did them any good. Others who have made similar purchases have noticed notable improvement in their trees and fruit and have purchased more and more freely. Of course this difference in experience may be due to several different conditions and may not necessarily indicate that the material applied was worthless, but in some cases this is no doubt the true explanation of the disappointment.

Fertilizers which are really worthless may sometimes be sold through ignorance, not alone of the purchaser but of the seller. We grant this does not often occur, and in most cases worthless stuff is sold with the full knowledge of the manufacturer that he is not giving value for the money he receives. There was an enterprise begun in this State some years ago which ingenuously proposed to sell farmers ground limestone at so much a ton, and a pamphlet was prepared setting forth the many values of lime in the production of crops. This was so simple a delusion that we attributed it to the ignorance of the projector of the enterprise, rather than his intention to perpetrate a swindle. The whole matter was dropped when some one secured a statement from Prof. Hilgard that ground limestone was of no appreciable value as a fertilizer.

Another case has more recently come to light. Some farmer in Southern California sent to the University a sample of a carload of bone fertilizer which had been sent him from some dealer in San Francisco. The stuff was simply disintegrated shells taken probably from some island deposit. This was apparent to the eye, for the shipper had taken no pains to disguise its character. An analysis showed that it was almost totally deficient in available fertilizing matters and that its actual worth was considerably less than the cost of freighting it, not to speak of the dealer's charge for it. It has been known for years that material sold as bonemeal and bone fertilizer by some parties in this city has been largely adulterated with such shell material and thus debased, but this is a case in which the adulteration was sold pure, so to speak. No doubt Prof. Hilgard's reply to the party who sent him the sample will prevent the sale of more of that stuff as a bone manure.

The fact of the matter is, that in fertilizers as in many other things the time has come when we must learn wisdom from the older States. These States have laws governing the sale of fertilizers. They provide that any farmer may take a sample of what is sold him and send it for analysis to the Experiment Sta-

tion or other recognized authority and secure a statement of its value. They also provide that dealers in fertilizers must furnish analyses of the material they offer and provide penalties for selling material not up to these analyses. There are also other provisions which comprise what is known in all the older States as "fertilizer control." This is what we must arrive at in this State, and the first step is the enactment of a fertilizer law and provision for its execution. When this is done we shall hear less of such outrageous things as are now coming to light in the fertilizer business in this State.

## The University and Farmers' Institutes.

At the regular meeting of the Regents of the University held on Tuesday, Jan. 13th, the following communication from the Executive Committee of the State Grange of California was read:

WHEREAS, The Congress of the United States recently passed a law providing for additional funds for the support and maintenance of Agricultural Colleges, to the extent of fifteen thousand dollars (\$15,000) per annum, with \$1000 increase each year for ten years to each Agricultural College in the United States, organized and maintained as provided by Act of Congress under date of July 2, 1862; and

Whereas, The interest of agriculture in this State demands that a thoroughly competent adviser and Lecturer be provided for such service; therefore he it hereby

Resolved, By the Executive Committee of California State Grange, that the Regents of the University of California be and they are hereby petitioned and urged to appoint such adviser and Lecturer for said service, who shall devote his whole time in the field, to the end that the farmers of the State may be educated up to the highest efficiency in their calling.

E. W. DAVIS, Chairman,  
J. V. WEBSTER,  
GEO. P. LOUCKS,  
THOS. MCCONNELL.

A. T. DEWEY, Secretary.

The communication was referred to a special joint committee composed of the chairmen of the standing committees on Agricultural Experiment Stations, on Lands, and on Internal Administration. These chairmen are Regents Houghton, Rodgers and Marye, and from their reputations as men of action and business, we expect that they will prepare their recommendations as rapidly as practicable.

**FRUIT IN ALASKA.**—It is reported in the city that a company of local capitalists is about to try the experiment of fruit-growing in Alaska. It is claimed that the Territory can be made a competitor of Oregon and Washington in the raising of the more hardy fruits, such as apples and cherries. The next steamer sailing for Sitka will carry in her cargo a large consignment of young apple trees. It is said that people in the States do not realize the agricultural and horticultural possibilities of the Territory. Kodiak island, for instance, is larger than some of the New England States, with a climate similar to that of Maryland, and is capable of supporting a large agricultural population.

**THE SOUTHERN CITRUS FAIR.**—Arrangements are progressing for the Southern California Citrus Fair, which will be held in Los Angeles in March. At a recent meeting held in that city the following representatives were present, representing the various counties: N. W. Blanchard, Ventura; Mr. Welner, Fresno; Frank Miller, Riverside; J. G. North, Redlands; Supervisor Cook, Glendora; N. C. Carter, Sierra Madre; and H. K. Snow, Tustin. A premium list was adopted and committees appointed to secure guarantee subscriptions to the amount of \$2500, and to secure a pavilion for holding the fair. We shall have more about this matter in later issues.

**THE IRRIGATION CONVENTION.**—The Convention of Irrigators was held in Sacramento according to announcement published in the RURAL PRESS. Names were decided upon for commendation as members of the Senate and Assembly Committees on Irrigation. Much discussion was held upon amendments to the Wright law, which the Legislature was to be asked to enact. There was also arrangement made to propose the law for a State organization in the irrigation interest. These matters are too long for treatment in this issue of the RURAL, and must be postponed for another week.



## The Orange—"From Seed to Grove."

[By B. M. LELONG, Secretary State Board of Horticulture, ex-officio Horticultural Officer.]

Whence came this delectable fruit, fit for the gods? What was its original history? Was it stolen by some mythological hero from Elysium, like the fire by Prometheus?

The orange (*Citrus aurantium*) belongs to the natural order *Aurantaceae*, and the origin of the different members of this family is extremely doubtful, having been cultivated from a remote period of antiquity, but belongs originally to China and India.

The flowers of the sweet orange are white, the leaves lanceolate or oblong. The petiole is not so marked or winged as in the bitter and sour oranges, but is always present to a greater or less degree. The fruit is generally an oblate sphere, of a golden yellow color; when ripe it is full of delicate pulp and sweet, refreshing juice.

The sour orange (*Citrus bigaradia*) does not grow quite so high as the sweet orange; has a larger leaf, with a highly winged petiole. The flower is larger and more highly perfumed; the fruit is of a red orange color; the skin rugged and porous; pulp, yellow; juice, extremely bitter.

The bitter orange (*Citrus bergamia*) is of a dwarf habit; the flowers are small, white, and highly scented; leaves, elongated, acute—the under side quite pale; the petiole is more or less winged; fruit, pale yellow, pulp, bitter.

There are many varieties of sour and of bitter oranges—some bearing large fruit, the majority of which are worthless, and some bearing small fruit, which is valuable for the manufacture of essence of orange and essential oils. The peel of the bitter orange is used in medicine as an aromatic tonic, and the fruit is also used in making marmalade and preserves. Many of these are grown in Europe for the essential oil they contain, from which is made a substance known as bergamot camphor.

## Propagation.

**THE SEED.**—The seed of the orange has seldom been known to produce fruit equal to that of the parent tree. However, it comes truer to seed than most fruits.

**COLLECTING THE SEED.**—The fruit is piled into heaps or put into barrels to rot. When it has decayed so that it will break into many places when hauled, it is crushed in a tub or barrel and the seed is washed out. A coarse sieve is used; the soft substance of the fruit will pass through the wires, leaving the seed in the sieve. This operation is carried on in a place where water can be used freely, as considerable is required to do the work properly.

**KEEPING THE SEED.**—To insure best results, the seed of the orange should not be allowed to dry after being taken from the fruit. If not ready to plant them, they should be placed in moist sand. In this way they can be kept until everything is prepared.

**HOW TO PUT THE SEED IN SAND.**—Take a shallow box, say five inches deep and not more than thirty inches square; fill it half full of moist sand, then put the seed on top, about two inches deep, and throw on the top of the seed considerable sand and mix it together with the hands. This is done so that the sand will stick to the seeds and prevent them adhering to each other. Then fill up the box with sand and let them remain until they are to be planted. The boxes can be stacked one upon the other.

**TAKING THE SEED OUT OF THE SAND.**—The seed-bed having been prepared, have a coarse sieve and take the top box and dump its contents into the sieve. This must be done with care, so as not to bruise the seed. Then shake the sieve, the sand will pass through, leaving the seed in the sieve.

**THE SEED-BED.**—The seed-bed should be inclosed with boards eighteen or twenty inches wide, set on edge, about four or six feet apart. The bottom should be floored, so as to prevent gophers and ground moles from entering the seed-bed. Laths are nailed on top leaving a space of one-half inch between them, to protect the seed from being scratched up by the birds. A covering of thin muslin is put on top of the laths to protect the young plants from being scorched by the sun. If the weather be cloudy, it is well that the covering be removed to allow the bed to get warm. It is better to plant the seed thickly and broadcast; as all plants are to be removed, it does not matter how thick they come up. The seeds should be covered with fine, rich soil, from one to two inches.

**TIME OF PLANTING THE SEED.**—Planting the seed very early, as in January and February, does not give good results, because it is entirely too early; the seed generally decays, as the time for it to germinate is not till spring. March, April, and even May, are the best

months to plant the seed, as the ground is then warm and all danger of frost is over. The seed-bed should be kept moist but not too wet.

**TRANSPLANTING.**—In one year the plants will be large enough to be transplanted in nursery form. The plants should be sorted; the very small and delicate ones should be planted in shallow boxes by themselves, and kept another

FIG. 1.



SPREADING ROOTS AT PLANTING.

FIG. 2.



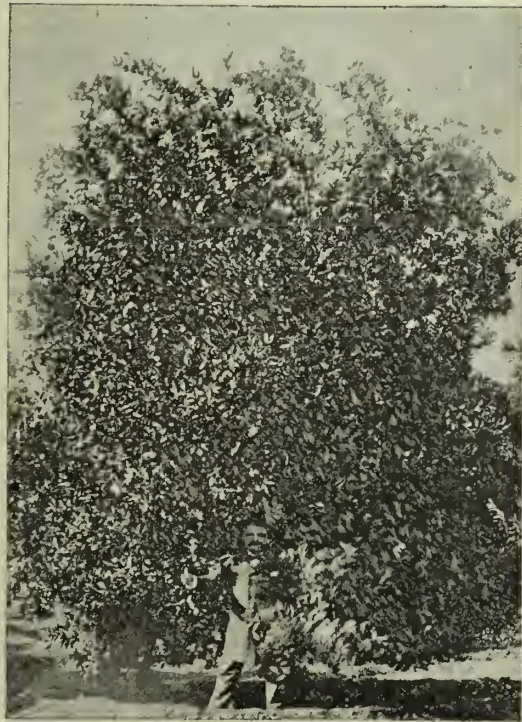
FIG. 3.



FIG. 4.



PRUNING THE ORANGE TREE ILLUSTRATED.

A LOW-TRAINED TREE—  
No Props Required.A HIGH-TRAINED TREE—  
Propped.

year; being so small and delicate, they are generally scorched by the sun when planted in the open ground, and remain small in the nursery.

**DISTANCE OF NURSERY ROWS.**—The rows should be far enough apart to admit a cultivator between them. Grave mistakes are often made in setting them less than four feet apart, as after being budded many buds are knocked off in cultivating by the horse or the traces rubbing against them. Preference is given to rows when set five or six feet apart. This will give ample room for cultivation; and also, when in digging up trees, a small, narrow sled can be run in to haul them to the head of the rows without rubbing against the nursery stock.

**DISTANCE IN NURSERY ROWS.**—Planting close together in the rows will tend to make feeble and slender trees. If it is not intended to sack the trees when they are to be transplanted, then the plants can be set from eight to twelve inches apart, and they will make strong and thrifty stocks; but if it is intended to sack them this is too close. They should be at least eighteen inches apart; this will give the digger enough space to take up trees between others. It also has the advantage that the roots are not cut too short, which is apt to be the case when they are planted close together.

**TRIMMING THE STOCK.**—The plants should be trimmed until at least one year; after planting they should be left to grow at will the first

year. If the plants are trimmed when too young, they will make slender and feeble stock.

In the following spring, as early as possible, say in February, the plants are trimmed, leaving a clear stock. All cuts should be made close, so that they may soon heal over. The brush is then gathered and burned. As the ground becomes packed by the trimmers, it should be loosened by running a cultivator between the rows.

## Budding.

**SPRING BUDDING.**—Generally, in the months of March and April, as soon as the trees begin to put forth and the sap flows freely, it is then the time to bud citrus trees. Everything should be prepared, no time should be lost, as the buds first inserted will sometimes start in less than three weeks with vigor, and by summer will have a large and thrifty top. The buds should be looked over at least ten days after they are inserted, and all those that show signs of dying should be rebudded, in order to give them an early start, and that they may grow more even with those first budded.

**SUMMER BUDDING.**—Summer budding is generally done in June and July. It is not consid-

spring to allow the buds to start, just as soon as the trees begin to show signs of growth. Great care should be used in the cutting of the tops, that it be done at the proper time, and that they be not cut so near the bud as to endanger it. A little brush should be allowed to remain to protect the stock, which is removed after the buds have started.

**STARTING THE BUD.**—When the stocks put forth in the spring the buds generally start also, and the suckers being very tender, are removed by hand (thumb prunng), breaking at the touch. Cutting them with a sharp knife has the advantage that no others will grow where so cut, and the cut being made clean will give the tree a smooth body, and as the tree grows very little suckering will be required. When the suckers become strong and are removed by rubbing with the hand, the trunks generally become rough and the suckering much greater.

## Planting.

**WHEN TO PLANT.**—Citrus trees are transplanted at various seasons, preference being given to one of its dormant periods occurring during the year.

Trees transplanted in the winter, when the ground is cold, will remain until spring without growing; therefore it is better not to transplant citrus trees until the ground begins to get warm. The nearer an orange tree is to starting new growth, the greater its strength and root power, and this is the best time for transplanting; also after they have made their first growth and before starting the second time in spring.

**BALLING SYSTEM.**—A narrow trench is made along the row and within six inches of the tree, the tap-root is cut about eighteen inches or so deep; then with a spade a round, oblong ball is cut, leaving in it the tree. The spade should be very sharp, or in cutting the roots the jar will break the ball. Pruning shears are used in cutting large roots. When trees are taken up with a sound ball of earth the leaves will hardly wilt.

**PUDDLING SYSTEM.**—Puddling is practiced where the soil is so loose that sacking is rendered impossible. Many prefer this system to any other, as it gives the trees larger and more roots; and where all due precautions are taken, puddling is the best system, and considerable expense is saved.

**THE PUDDLE.**—A hole is made in the ground and filled half full of water, then soil is thrown into it and worked with a hoe, which forms the puddle. The puddle should be thin enough, so that when the roots of trees are put into it, it will stick to them, at the same time wetting every part thoroughly. The trees are carefully taken up; the soil is shaken from the roots and they are immediately dipped into the mud, or puddle. They are then placed on wet straw in a wagon. A large canvas, or covering, is placed over the wagon to prevent the sun from drying the roots, as the roots should not be exposed to the sun, even if only for a few minutes. The wagon is then driven to the field where the holes were dug. The driver hands the trees, one at a time, and the planter holds the trees in position while his men fill it up with dirt, first throwing in the moistest; the planter presses the soil very lightly and goes to the next one. The tree having been set, a basin is made around it, and a couple of buckets of water poured into the basin; this will settle the soil and keep the tree fresh until water can be run down the rows in furrows.

**EXTENDING THE ROOTS.**—It is a common practice among growers to place the tree in the hole, fill it up with soil, and then tramp it. As the roots are covered with thick mud they will stick together, and if the tree grows it will not do as well as when the roots are extended with care. This is very simple. The hole is half filled with earth so as to form a mound; the shovel handle is driven down in the center, and on being withdrawn a deep hole is left, sufficiently large and deep to admit the tap-root of the tree; then the lateral roots are spread over the mound, as shown in the illustration (Fig. 1), and the soil is lightly pressed. Heavy tramping is not necessary, as the water settles the dirt and keeps the roots in place. As soon as the water in the basin has disappeared, the basin is covered with loose soil; this will prevent evaporation, and also the tree from leaning over. Trees planted with these precautions make the best growth and become the most thrifty.

**TOPPING THE TREES.**—When the tree is taken from the nursery the tops should be cut back; the branches should be so cut that in starting they will form a fine-shaped head. This is done because evaporation from the leaves is rapid, and in many cases where the tops are left on, causes the circulation of the trees to dry, and also the bark will shrivel before the roots have assumed their natural functions.

## Planting Systems and Soil.

The planting systems most common in use are the square, triangular, and quincunx. The square system is most generally adopted, being the most simple. In this the orchard is laid off in lines crossing each other at right angles, with equal intervals of space, and a tree planted at each crossing of the lines.

**SOIL FOR ORANGE TREES.**—An orange tree should never be planted on heavy, low ground, or on low, damp ground where water can be reached within a few feet of the surface, and never on black, adobe soil; they will always be troubled with gum disease, and will also be nipped by frosts every year. A rich, deep, porous soil is absolutely necessary to give the trees a vigorous growth. Trees on heavy

ered as good as early spring budding, because the buds do not start even; and as the greater portion of them start late, their growth is so tender by the time winter sets in that, if they pass through it, they become prematurely hardened by the cold weather, which sometimes causes the tree to become stunted.

**FALL BUDDING.**—Fall budding is generally performed during the months of September, October, and sometimes as late as November. After the strings have been removed they are left to pass the winter in dormant bud, to be started in the spring.

## Starting and Training the Buds.

**CUTTING OFF THE TOPS.**—In the spring, as the nursery trees swell very fast, three weeks is long enough for the struts to remain on them; but the tops should not be cut off then. The strings should be removed, the nursery irrigated and cultivated. This will force new growth, and the tops should then be cut back from four to eight inches above the bud. After the bud has grown about six inches or more it is tied to the stock. When the bud has become stocky and able to support itself, what remains of the top is then cut away. The cut should be made smooth and paluted with rubber paint. This helps the wound in healing over, and protects the stock from the action of the atmosphere. Those that have been left to lie dormant through the winter should be cut back in the



adobe or poor soil become stunted and will not produce fine fruit, and never become profitable bearers.

**PREPARATION OF THE SOIL.**—The land should be thoroughly worked through the winter and prepared to be planted in the spring, when it becomes warm; also, all weeds and stubble plowed under will be decomposed and serve as a fertilizer to the orchard. The thorough working of the soil liberates ornde gases and changes the nutritive principles to a form more readily assimilated by the tree.

#### Varieties.

The most profitable varieties grown in this State are the following, and their prominence is about in the order named:

**WASHINGTON NAVEL.**—Fruit large, solid and heavy; skin smooth and of a very fine texture; very juicy, highly flavored, with melting pulp; seedless; tree a good and prolific bearer, medium thorny, a rapid grower, although it does not attain a very large size; commences to bear as early as one year old from the bud; ripens early. Imported from Bahia, Brazil.

**VALENCIA LATE.**—This orange has proved itself one of the most profitable to grow. It ripens in May and June, when other varieties are out of the market. Fruit large, thin skin, pale yellow, firm, oblong, and heavy, very few seeds. An excellent shipper; tree large and prolific bearer. Imported from England.

**JOPPA.**—This is a remarkable orange, as it can be marketed early and yet able to remain on the trees till July, without deterioration in quality, and for this reason is suitable for all sections. Fruit large (see illustration), firm, nearly seedless, thin rind, pulp very fine, sweet and juicy and of very deep red color; tree thornless, upright and vigorous grower, suitable for standard purposes. Imported from Palestine.

**MEDITERRANEAN SWEET.**—Fruit medium to large, pulp and skin of very fine texture, very solid and few seeds; color deep orange; ripens late; tree thornless, of a dwarf habit, inclined to overbear. Imported from the Mediterranean.

**MALTESE BLOOD.**—Fruit medium, oval, texture and flavor very fine, pulp marked vinous red, very few seeds; fruit shows red color on surface, tree dwarf, thornless. Imported from Mediterranean.

**PAPER RIND ST. MICHAEL.**—Fruit small, round, very firm and juicy; pale thin skin; grows very uniform, ripens late, and keeps well on the tree; does not drop when mature; tree dwarf, medium, thorny, a good and prolific bearer. Imported from the Azores.

**AZOREAN ST. MICHAEL.**—Fruit medium to large, and solid; pulp fine and melting; medium thin rind; flattened, few seeds; ripens early, and keeps well on the tree; a rapid grower and a prolific bearer; is a large tree and is recommended for standard purposes. Imported from the Azores.

**WOLFSKILL'S BEST.**—Fruit of excellent quality, somewhat flattened, color deep orange red, fine grain and pulp; ripens early. This orange is of home origin. The advantage it has over foreign varieties is that the tree is very hardy, and can be planted in localities where the temperature gets so low as to prevent them from thriving; it will also make a larger tree.

**KONAH.**—A California seedling raised from seed grown on Konah island; fruit large; rough and thick skin; tree very thorny; ripens early.

**RIO.**—Fruit and tree resemble the Mediterranean sweet, but the fruit is much larger, has a thicker skin; ripens late; very seldom can the entire crop be picked from the tree, as it does not ripen even, green oranges are found on the trees throughout the summer; tree thornless, of a dwarf habit. Imported from the Mediterranean.

**TANGERINE OR KID GLOVE.**—Fruit deep red, small, very sweet, and aromatic; when ripe the rind is very easily detached; tree dwarf; very uniform in shape, of a weeping habit.

**KING.**—A late orange ripening in May and June; averages below medium in size; very rough rind; segments cleave when fully ripe; very highly flavored. Imported from China.

**SATSUMA.**—Fruit small, flattened; rind very easily detached; of exceedingly fine texture, sweet and seedless; tree dwarf and very hardy. Best suited for gardens.

**KUMQUAT.**—Fruit is edible whole (rind and all), very small, oblong or olive shaped; rind thick, yellow, smooth, sweet-scented; very little pulp, and contains many seeds; tree a bush and very prolific. Best suited for gardens or home plots.

#### Ornamental.

**MANDARIN.**—Tree very ornamental; fruit very red, flattened at the poles, having an outgrowth at the blossom end.

**POMELO (syn. grape fruit).**—A variety of shaddock; fruit very large, from two to five pounds each, pale yellow, resembling the citron; skin smooth; pulp sub-acid.

**SHADDOCK.**—Tree inclined to be dwarf; fruit very large, with smooth skin, pale yellow and very glossy; the rind is very thick and spongy, and very bitter; ornamental only.

**BOUQUET.**—Fruit very bitter. The flowers have a commercial value, as they are very large and fragrant.

**BERGAMOT.**—Ornamental only; fruit large and very rough, flattened. Is grown for the bloom.

**MYRTLE LEAF.**—Ornamental only; tree very dwarf; foliage densely packed together; small leaf the shape of the myrtle; fruit bright red and very bitter.

**VARIATED ORANGE.**—Ornamental only; tree dwarf; leaf variegated, with white margin and green center; very glossy; stem white and green; fruit striped with white and very bitter.

In pruning a tree, especially when allowed to grow for several years without it, considerable work and skill is required. The hot sun should not be allowed to enter and scorch the bark, which would also cause the fine brush to die and a diseased tree is sure to be the result. The advice so often given, "that the tree be opened so as to allow plenty of air and sun heat to enter," does not hold good with the orange. Fig. 2 shows how a tree is left after the brush that protects the trunk and branches is removed. The trunk and inside growth is left exposed to the sun.

I have often seen trees with one side of the trunk scorched and the bark dead after the brush that protected it from the sun had been removed.

Fig. 3 illustrates a high-trained tree of the same age.

In this the lower limbs have been removed, leaving a clean stock, so as to allow the horse in cultivating to pass under its branches and the cultivator to work the ground close to the trunk.

Fig. 4 illustrates a low-trained tree of the same age as Figs. 2 and 3. In this the lower limbs have been allowed to remain to protect its trunk and inner growth.

The inside of the tree is kept clear of all dead wood, and the growth on the outside is allowed to become uniform. The lower foliage supports that above it, and so supports its fruit without the aid of props.

When trees are trained low the shade of the branches keeps the ground moist, and in case of excessive heat, or scarcity of water, will not suffer; whereas the heat causes the leaves of high-trained trees to curl, and if not watered at the proper time the growth of the fruit becomes checked. Low-trained trees become better balanced, vigorous, healthy and more productive than when trained high, and the fruit is much more easily and cheaply gathered.

#### The Orange Crop, Gathering, Etc.

**PICKING.**—The tree should never be picked clean; only the ripe fruit should first be picked, thus-lightening up the trees. The clean, bright colored, smooth, fine skin, firm oranges will always command the best prices. Fruit should be handled with care. It is better to (clp) stem cut than to pull the orange, as in pulling there is danger of tearing the skin. The fruit should not be packed fresh from the tree, as when packed it will heat and sweat in the boxes at an ordinary temperature, and, as the entire contents in the box become damp, there is a great danger from rot and decay. The fruit should be picked in boxes and left in the packing-houses three or four days to allow the rind of the fruit to shrivel and to lose the surplus moisture in the rind. Unless the weather is very cool they go through a natural sweat, in which the surplus moisture escapes and the rind becomes tough and pliable; many unseen imperfections, such as slight bruises, etc., will develop into spots, necessitating a more careful selection of the perfect fruit for market.

The standard size of an orange-box is 12 inches by 12 by 26½, outside measurement, with a partition in the middle.

#### Fertilizers.

Barnyard and sheep manure are the fertilizers mostly employed in the orange orchards in California. They have, to a certain extent, all the essential elements for plant food, but lacking in proportions according to conditions. In fertilizers bulk is not what is necessary, but instead, the proper elements as fertilizers in a concentrated form. Fertilizers in some form can be made to last, like barnyard and sheep manure, and feed several successive crops with a single application. For instance, in ashes and bone we have all the elements for a complete fertilizer, when all that is required is to apply an extra quantity of ashes and a portion of the bone in a coarse state. Ashes are always enduring in their effect, and the coarse bone will be several years in decaying and setting free nitrogen and phosphoric acid. One of the three elements, nitrogen, potash, or phosphoric acid, of which the soil has the least, will always be the measure of the crop. A hundred pounds of potash applied would not give a larger yield than five pounds (and so of the other two elements) if there is not a proportionate increase of the other elements. The right way is to make the most and best manure that is practicable upon the orchard, and piece out with such commercial fertilizers as experience and experiment prove profitable. Artificial fertilizers are, of course, much more cheaply transported, and, unlike barnyard or sheep manure, do not carry with them seeds of weeds into the soil, and as they contain the fertilizing elements in so condensed a form, the whole handling of them becomes much cheaper.

Artificial fertilizers should be applied a little at a time and often. Nitrogen tends to promote leaf growth, and if the bone in the soil does not all decompose in the first year, the nitrogen contained in it goes over with it and is not lost. If but one of the elements be used, it should by all means be bone, and the finer the bone and the finer and drier the fertilizer, the more valuable it is. When the animal matter in bone decays, the phosphoric acid in the bone is in a reversed condition.

#### Diseases.

**GUM DISEASE ("MAL DE GOMA").**—This disease is first detected on the trunk close to the ground, and is a yellow, gum-like substance which forms on the outside of the bark. It is an exudation of the sap of the tree, which breaks through the bark and forms a gum. The disease is under the bark and also penetrates into the inner bark and into the wood.

**REMEDY.**—There is but one effectual remedy, i. e., cutting away the bark from where the gum oozes, and the infected parts gonged out. If, on the following day, the gum is still running, more of the wood must be gonged out until every particle of the disease is removed. Then the wound is covered with rubber paint, or grafting wax, to prevent the action of the atmosphere from cracking the wood left exposed.

## AGRICULTURAL NOTES.

### CALIFORNIA.

#### Butte.

**EXCHANGING VIEWS.**—Oroville Register, Jan. 5: The fruit growers at Palermo are forging ahead in a manner that is greatly to their credit. They have established a fruit-growers' association and will have monthly meetings. At these meetings samples of fruit will be shown and essays read, hearing upon the production of various fruits. Discussions will follow and each member will give his experience, thus helping all who are present.

**ALMOND CULTURE.**—Middletown Independent, Jan. 10: We are informed that J. W. Everington intends to plant quite a number of almond trees on his place in the near future. We believe there is much of our hill land that would grow almonds to perfection. Mr. Kiep has planted almonds on his place north of Gueeno, and they are doing finely. Our opinion is, that nuts and fruits of almost any kind can be raised in this vicinity with profit, and that the planting of nut and fruit trees will hasten the building of the much-desired and long-wished-for railroad.

#### Mendocino.

**HOP CONTRACTS.**—Cor. Ukiah Dispatch and Democrat, Jan. 9: I beg to admonish the hop-growers of our county and State that there are speculators abroad in the land trying to make contracts for the growers to sell them their crops for a term of years at very low prices. The speculators are cunning—they do not ask to engage the entire crop. Their object is to engage enough to carry the business through the first half-year after picking, knowing that if they can engage a sufficient quantity of hops at low prices to run the breweries half the year, the producers will not hold the remaining hops until the first purchase is exhausted. It must be apparent to any man that the low prices at which speculators are trying to engage hops (and with some success) fix the price of hops not so engaged. It will be observed they hardly ever try to engage an entire crop, knowing that those engaged fix the price for the rest.

#### San Benito.

**ANOTHER IRRIGATION COMPANY.**—Hollister Advance, Jan. 9: The Panoche Grande is the name of another irrigation company formed in this county. The leading spirits therein are Messrs. Webb and Collins, extensive land-holders in the Panoche valley. They propose to utilize the waters of Panoche creek and render the whole of the northern half of the valley fruitful and productive. Surveys are now being made to this end. Two companies are operating in Panoche valley.

#### San Bernardino.

**SAN BERNARDINO COUNTY'S PRODUCTS FOR 1890.**—The Courier gives an estimate "made by men in a position to know," as follows:

Oranges, boxes.....	415,393
Lemons and limes, boxes.....	6,370
Raisins, boxes.....	450,000
Dried grapes, tons.....	190
Dried fruit (deciduous), pounds.....	1,800,000
Canned fruit, cases.....	30,000
Wine, gallons.....	300,000
Brandy, gallons.....	150,000
Extracted honey, pounds.....	350,000
Walnuts and almonds, pounds.....	100,000
Oranges, acres.....	138,222
Lemons, acres.....	5,333

Banning put up 85,005 sacks of barley; Yncalpe, 45,000 sacks; all other sections about 10,000 sacks. The wheat crop for 1890 is as follows: Banning, 12,500 sacks; Yncalpe, 6750; all other sections, 1000. This is a large increase over the preceding year. Nothing is said of corn, and it is certain that at least 400 tons were grown on the Chino Ranch this year.

#### Santa Barbara.

**GROWING INTEREST IN FRUIT.**—Santa Maria Times, Jan. 10: J. F. Goodwin, who is well posted as to the acreage of fruit trees in the valley, says, that to take Mr. Miller's orchard as a basis on which to figure, in three years' time there will be over 3000 acres of fruit trees that will come into bearing, and that it will require much outside help to take care of the fruit. As fruit-tree planting has just merely begun in this section, the amount of fruit we will have to handle each additional year after the coming three will simply be enormous. Canneries, then, will become a necessity, and fruit-growers will not hesitate to take stock in anything that will work up the fruit in a hurry in order to keep it from spoiling.

#### Santa Cruz.

**BEEF CONTRACTS.**—Watsonville Rustler, Jan. 9: The Western Beef Sugar Company this year has prepared a contract agreeing to pay a fixed price of \$5 per ton for beets, with the proviso that said beets must not weigh over four pounds each. Those who prefer the old system of polarization can sign contracts fixing the minimum price for beets at \$4 per ton, with an additional 50 cents per ton for each per cent of saccharine matter above 14 per cent.

**SUGAR-BEET SEED RECEIVED.**—Watsonville Pajaronian, Jan. 9: Three carloads of beet seed were received at the sugar factory last Saturday, and will be distributed to beet-growers for the coming season. The seed was imported from Germany.

#### Shasta.

**FAVORABLE CROP WEATHER.**—Anderson Enterprise, Jan. 8: The rains last week have

been of lasting benefit to the farmer. Sufficient water has now fallen to make plowing easy in the toughest soils, and the rain has come at such intervals and in such quantities as to make the outlook for crops of all descriptions the most favorable. The precipitation to date has been in the neighborhood of four inches, which, from the manner in which it has appeared, we consider of far greater benefit than five times as much given to us in flood lots. Should we be favored with such weather during the season, we may reasonably expect the best crops in '91 that have been harvested for years.

#### Solano.

**SOLANO CROP OUTLOOK.**—Vallejo Chronicle, Jan. 8: The farmers intend planting many acres of almond and pear trees this season. The outlook for the apricot crop is bad, as most of the buds have been blighted in many localities. Agents are already offering as high as 3½ cents for the plum crop and not a bud on the trees.

#### Sonoma.

**RAMIE PLANTING.**—Sonoma Index-Times, Jan. 10: The attention of Capt. H. E. Boyes of Agna Rica farm, having been called to ramie, he has decided to introduce its cultivation in Sonoma valley this season. He has already prepared 10 acres of land, and will commence planting as soon as the ramie roots are received.

#### Sutter.

**MAMMOTH TURNIPS.**—Yuba City Independent, Jan. 9: On Monday of this week, J. B. Pool of this county brought to this office two sample turnips which for size and perfection of form surpass anything we have yet seen in that line. They are of the German Red-top variety. One of them measures 24½ inches in circumference and 11½ inches in perpendicular length; its weight is 8½ pounds. The other specimen is 25 inches in circumference, but not quite so long. The seed from which these turnips grew was planted Sept. 1, 1890—three months ago. One acre was planted and the yield will be between 30 and 40 tons. Mr. Pool's farm, upon which these turnips grew, lies along the Sacramento river, below Knights Landing, in Sutter county. We know from personal observation that no richer land lies under the sun.

**ALMONDS AND GRAPES.**—Yuba City, Jan. 9: Henry Everett and son will soon begin setting out a ten-acre orchard of almonds and grapes near the Buttes. The trees will be planted 24 feet apart, and between the rows the vines will be planted. The grapes are of the Tokay variety and will undoubtedly do well in that locality, as fruit and grapes generally mature several weeks earlier near the hills than in other localities in the county.

**PECAN NUTS.**—Marysville Appeal, Jan. 9: C. N. Tharsing brought us a quantity of pecan nuts from the grounds of the Sutter County Orchard Co. They are of fine quality. Mr. Tharsing says he has six trees. They are large, resembling oaks, and are from 40 to 50 feet high. They stood for five months in water six feet deep, and were not affected in the least. This shows their adaptability for low lands. The trees are from 15 to 20 years old, and have borne heavily as far back as Mr. Tharsing knows. They are of rapid growth and are true bearers. The yield from these trees is one grain-sack of shelled nuts to the tree, and they are worth about 15 cents a pound. An acre will accommodate some 40 trees. Very little labor is required in picking the crop.

**RAISING BUCKWHEAT.**—Yuba City, Jan. 9: The acreage planted to buckwheat in Sutter county, although small, adds much to the wealth of the county. Where the soil is rich and moist, this grain makes a very profitable yield. The farmers of Southwest Sutter have found this to be true and are now raising it extensively. The cost of seeding, harvesting, etc., is no more than that of wheat, while the selling price is from 75 cents to \$1 per cental more, the price at present being \$1.90 per cental. District No. 70 contains several thousand acres well adapted to the cultivation of buckwheat, and more of it should be planted.

**INCREASED ACREAGE SEEDED TO WHEAT.**—Yuba City Farmer, Jan. 9: The long fall and open winter have given our farmers every opportunity to prepare and sow their lands, and although the acreage now sown is large, still many thousands of acres will be yet put in during the present month and in February. It is a noticeable fact that on summer-fallowed land, grain has not made the growth as is generally the case at this season of the year, owing to the coldness of the ground for the past two months. This, however, is by no means detrimental to its proper maturing, but, on the contrary, a favorable indication of a larger yield, as the grain, in its spring development, will not grow so heavily to straw, but bear larger and better filled heads and prevent all chance of lodging. The cold weather coming on as a large portion of the grain sown was coming up, the rapid growth was checked and the process of stooling aided, thus increasing the prospective yield to a large extent. The early-sown grain is of a good color and stands thick on the ground. Winter-sown land is also in good condition and bids fair to make a heavy yield.

#### Tulare.

**FRUIT NOTES.**—Visalia Delta, Jan. 8: I. H. Thomas of this city thinks there will be from 5000 to 6000 acres of land in Tulare county planted in fruit this season. Charles Spier, the well-known nurseryman, goes Mr. Thomas 4000 acres better and says that the acreage will



he nearly 10,000. B. M. Baird, who lives near Cottonwood, will plant 80 acres to vines. Edward Sadler and William Brown have leased 80 acres of the T. B. Wheaton ranch, near town, for five years, and they will plant it to fruit. Arthur Crowley owns a mountain ranch and he will plant 20 acres of it to apples this winter. Edwin Van Valer will plant ten acres to pears on his ranch this winter. One hundred and forty acres of the Flynn tract were sold to a local syndicate at \$100 per acre. The syndicate has organized the Land & Raisin Company of Visalia, divided into 280 shares of the par value of \$200 per share, making the capital stock \$56,000. The land cost \$14,000. The land is well adapted for raisin culture, and about 45 acres of grapes and five acres of prunes will be planted this winter.

**DAIRY INTEREST.**—Hanford *Sentinel*, Jan. 1: Two years ago a cheese factory was built and equipped at Hanford. The business of making cheese from the milk of cows pastured on alfalfa was an experiment, as was also the curing of cheese during our hottest months. The factory was built and the business opened by a stock company with J. G. Cohoe, an old New York cheese-maker, as manager of the business. A short trial demonstrated that alfalfa milk was excellent for cheese-making, and Hanford cheese from the first became popular throughout the State wherever it became known. Mr. Cohoe, who understands the business, was himself surprised at the splendid results of the experiment. The factory has been in successful operation since it was started, and finds a ready sale for its products at good figures, and milk is now being contracted for at the factory at \$1 per 100 pounds. The manufacture of cheese here has improved the quality of butter in the market, for many poor butter-makers are selling their milk, and those who are capable of making a good article find a better market for their butter, and consequently are able to devote more attention to the business. The Lakeside district, south of Hanford, is now taking the lead in the patronage of our cheese factory. In the Excelsior district, north of Hanford, what is known as the Excelsior Factory, managed by E. F. Hauert, has been in operation over two years, and although not so extensive in its business, has met with good success. Another factory began operations at Visalia last summer—a stock concern, superintended by Mr. Cohoe of Hanford. It is also a success.

**PROFIT IN ALKALI LAND.**—*Sentinel*, Jan. 1: There is a large amount of alkali land in Tulare county, and Samuel Page has one of these alkali ranches three miles northeast of Hanford. He is a careful farmer and keeps account of everything. The ranch contains 140 acres and abounds in alkali and salt grass. Here are his figures for 1890, to which he will make affidavit if necessary:

Spring wool sold.....	\$ 371 00
First lot of lambs.....	147 75
Second lot sheep and lambs.....	200 00
Third lot sheep and lambs.....	451 00
Two bucks.....	8 00
Two tons of hay.....	8 00
October lambs for Christmas.....	20 00
Pasturing sold.....	36 75
Growth of three colts.....	60 00
Sucking colts.....	60 00
9 bales of wool, 2715 lbs., @ 11½ cents.....	312 25
Total.....	\$1,963 75

## EXPENSES.

Shearing, dipping and sacks.....	\$120 00
Haying help.....	50 00
Breeding two mares.....	20 00—190 00

Profit balance.....\$1,773 75

Mr. Page settled here in 1882. After closing the year's business with the above result, he had left on hand as a principal or capital stock for the next year's production, 600 sheep, two brood mares, two work horses, and hay enough to winter the same. He had the crop of six acres of orchard and a one acre vineyard, the production of which was not taken into account.

## Ventura.

**LARGE SHIPMENT OF LIMA BEANS.**—Los Angeles *Herald*, Jan. 10: A notable shipment of California produce passed through this city from Ventura en route to Columbus, Ohio. It was a solid train of 11 cars, containing 4800 sacks of straight Lima beans. The consignment goes forward over the Sunset route, as a special, running regular Sunset special time, which will bring it to Columbus in ten days. This is the largest single purchase of Lima beans ever made in the State, and one of the largest of any sort of California produce on record.

## Yolo.

**WOOL GROWERS' ASSOCIATION.**—Esparto, Jan. 4: The Yolo Co. Wool-Growers' Association met yesterday. A bounty on seven coyote scalps was ordered paid. It was decided at the meeting to ask Colusa, Napa, Solano, Lake and Sacramento counties to join the association. The Board of Supervisors will be petitioned to raise the bounty from \$5 to \$10 on each scalp.

**RAISIN PACK.**—Woodland, Jan. 8: The season has been remarkably good for the growth of the raisin grape, and fully 300,000 boxes of raisins, in addition to a large amount of dried grapes, have been and are about to be marketed. The wine product is less on account of the low price of wines and the increased price of dried wine grapes.

**FRUIT INDUSTRY.**—Woodland *Mail*, Jan. 8: Several enterprises have been inaugurated during the last decade, but the most notable has

been the cutting up of large ranches into small fruit farms. Thousands of acres have been planted to the vine and various kinds of fruits, and the profits have been so large on raisins, prunes, apricots, figs and olives that a large number of persons are contemplating the entrance of these valuable productions. It is estimated by fruitmen that there will be planted in this county during the next season from 3000 to 4000 acres in vines and fruit, and the most of this is small holdings of from 10 to 20 acres each. A syndicate consisting of D. M. Burns, E. J. Depue, C. H. Waterhouse, Sam Jones, A. T. Hatch, Frank McMullen and C. S. Givens has purchased 400 acres of the richest and best land in the county, near Woodland, for \$125 per acre, for the express purpose of planting the entire tract to fruit-bearing trees and the raisin grape. They style themselves the Yolo Orchard Company, and will commence work immediately. Some of the townspeople and county officers have purchased small parcels on the installment plan for the same purpose. In Capay valley, great preparations are being made for tree-planting, and an area of 1000 acres will be planted in the valley this season. This certainly speaks well for the county, and those who will break away from the old rut of grain-growing will not regret their action in a few years, when these orchards and vineyards come into full bearing. The apricot has been largely cultivated and mostly dried and shipped at prices far above that of last year. From \$300 to \$350 per acre has been realized this year on that industry. But the most valuable crop from the experience of the few engaged in the business has proved to be the prune. The French prune grafted on the Myroholan stock has netted as high in some instances as \$500 and \$600 per acre, and a ten-acre prune orchard, when in full bearing, would make a good living for an industrious man.

## Yuba.

**CROP PROSPECT.**—Marysville *Appeal*, Jan. 9: At no time in the history of Yuba and Sutter counties has the prospect for an abundant wheat yield been better than for this summer. The acreage is unusually large. Farmers have had ample time to properly seed their land, and there has been just enough rain to cause the ground to work to perfection. Many who usually summer-fallow their land have this year winter-sown, as the short crop last year exhausted the ground but very little, and there was no necessity for letting it lie idle this year. Much of the wheat is already up and shows a fine stand. Late rains are what bring out the grain, and with an ordinary spring the yield will be enormous.

## ARIZONA.

**CATTLE INDUSTRY.**—Phoenix *Republican*, Jan. 8: A stockman who was in Phoenix a few days ago made an observation upon the state of the cattle market that is a digest of the situation. He said: "Good cattle are in good demand at good prices; poor cattle are in poor demand at poor prices." He continued: "The day of the Texas and Mexican steer has long since passed in Arizona, and indeed anywhere else in the Union. It will not pay to ship even fat Texas cattle to the markets, for when brought into comparison with the graded Herefords and Durhams that are now so freely offered, the native stock outs but a sorry appearance, and is the last to be purchased. About as strong an argument as I know for the breeding of only good stock came in this morning's *Republican*. It was that portion of the Chicago live-stock market showing prime steers to be worth \$5.35 a hundred, while Texans were selling at only \$1.15. Now, of course the latter price will hardly pay back the shipping and stockyard charges, though the first-named price is as royal a figure as a cattleman could yearn for." The fact of the matter is, the cattle business of Arizona is vastly changed from what it once was. But a small percentage of the Territory's beef product is now consumed at home, the greater portions being shipped direct to the great cities. One-half of the Arizona heaves are of more than a medium grade, and the remainder are small "rough and common." The sires on many ranges are, for sake of economy, selected entirely from range calves, and the result is, the succeeding generations are far from satisfactory. Nearly all the ranges of Maricopa, Yavapai and Gila counties have now large numbers of good grade bulls of the Durham, Hereford or Murphy stock, and the steer crop each year is improving in quality. It costs no more to raise a good, large steer than it does a sorrel, and the weather of Arizona is not of sufficient severity to constitute the basis of an argument for the growing of the tougher breeds of native cattle.

The great popularity of Ayer's Pills as a cathartic is due no less to their promptness and efficacy than to their coating of sugar and freedom from any injurious effects. Children take them readily. See Ayer's Almanac for this year, just out.

## \$500,000

TO LOAN IN ANY AMOUNT AT THE VERY LOWEST market rate of interest on approved security in Farming Lands. A. SCHULLER, Room 8, 420 California St., San Francisco.

## \$3,250,000

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In one's life is the discovery of a remedy for some long-standing malady. The poison of Scrofula is in your blood. You inherited it from your ancestors. Will you transmit it to your offspring? In the great majority of cases, both Consumption and Catarrh originate in Scrofula. It is supposed to be the primary source of many other derangements of the body. Begin at once to cleanse your blood with the standard alterative,

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"For several months I was troubled with scrofulous eruptions over the whole body. My appetite was bad, and my system so prostrated that I was unable to work. After trying several remedies in vain, I resolved to take Ayer's Sarsaparilla, and did so with such good effect that less than one bottle

## Restored My Health

and strength. The rapidity of the cure astonished me, as I expected the process to be long and tedious."—Frederico Mariz Fernandes, Villa Nova de Gaya, Portugal.

"For many years I was a sufferer from scrofula, until about three years ago, when I began the use of Ayer's Sarsaparilla, since which the disease has entirely disappeared. A little child of mine, who was troubled with the same complaint, has also been cured by this medicine."—H. Brandt, Avoca, Neb.

## Ayer's Sarsaparilla

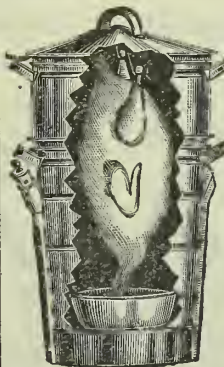
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CAUSTIC BALSAM.

A Safe, Speedy and Positive Cure for Curb, Splint, Sweeney, Capped Hock, Strained Tendons, Founder, Wind Puffs, all Skin Diseases or Parasites, Thrush, Diphtheria, Pinkeye, all Lameness from Spavin, Ringbone or other Bony Tumors. Removes all Bunches or Blemishes from Horses and Cattle. Supersedes all Caustic or Firing. Impossible to Produce any Scar or Blemish.

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Tone, Touch, Workmanship and Durability.

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## DIVIDEND NOTICE.

FOR THE HALF-YEAR ENDING DECEMBER 31, 1890, a dividend has been declared at the rate of five and fifty-two one-hundredths (5.52) per cent per annum on term deposits and four and sixty one-hundredths (4.60) per cent per annum on ordinary deposits, free of taxes, payable on and after FRIDAY, January 2, 1891.  
B. O. CARR, Secretary.

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DO NOT FAIL TO SEE THE "DOMESTIC"  
Before Buying a Sewing Machine.

It is the lead in practical progress. Send for price list  
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DEWEY & CO., PATENT AGENTS, 220  
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THE GREATEST DISCOVERY OF THE  
NINETEENTH CENTURY.

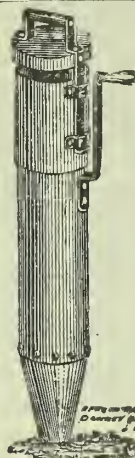
Silver Medal Awarded by the State Fair of 1890.

This preparation is a Sure Destroyer of the SCALE, WOOLY APLIS and INSECT PESTS of any and all descriptions. It may be as freely used in the conservatory, garden or greenhouse as in the orchard or vineyard. It is non-poisonous and harmless to vegetation when diluted and used according to directions. It mixes instantly with cold water in any proportions. It is SAFE, SURE and CHEAP. No Fruit grower or Florist should be without it. Send for Circulars and Price List.

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Sole Agents for the Pacific Coast.

BROWNE'S  
Patent  
Squirrel  
Exterminator.

This is an apparatus for turning straw and sulphur and also forces the fumes down their holes which never fails to kill. I will give \$100 in case the exterminator does not kill (if properly applied) every ground squirrel that its deadly fumes comes in contact with. Thousands are in use. Price \$3.00. Send for circulars to

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PROTECT YOUR TREES  
FROM SUNBURN, BORERS,  
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By Using the

## Pacific Tree Protector.

Waterproof, Adjustable &amp; Convenient.

Saves Time, Trouble &amp; Expense.

No. 1 Tarred Felt, Vermin and Water-proof, good for 3 yrs, 7x16, \$2.00 100.

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Containing 100 pages of matters of interest to the

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field, how to build hay

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other valuable informa-

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Compressing, Center-Trip Hay Sling, which

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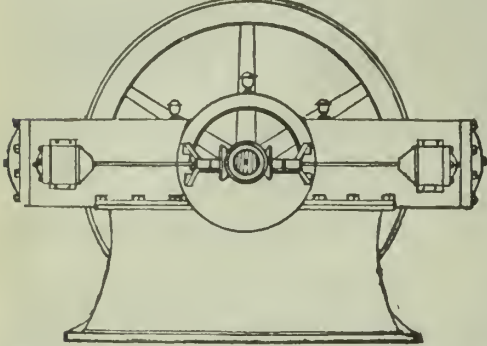
leaving no litterings whatever, and lays it on the

mow or on the stack, just as it lay on the load.

Write NOW before losing address.

Louden Machinery Co., Fairfield, Ia.





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Our Perfected "Safety" Engines Cost to Run only 1-8 Gallon of Gasoline per Horsepower per Hour.

—NO—  
Boiler,  
Fire,  
Smoke,  
Steam,  
Ashes,  
Or Heat  
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Engineer;  
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Danger.

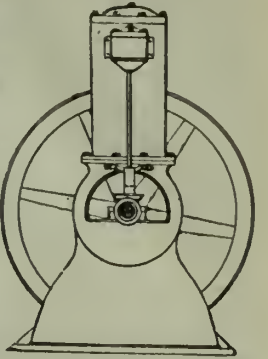


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½ H. P. to  
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Pumping Plants, Yachts & Launches,  
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**ELECTRIC VAPOR ENGINE CO.**  
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Complete Plants of all kinds, Station-  
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of buildings,  
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They are  
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"NEPONSET" SHEATHING (color black).  
NO. 1 "NEPONSET" ROPE ROOFING (color terra cotta).  
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These papers are in rolls 36 inches wide, and they con-  
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about 20 or 40 pounds per roll, respectively.

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Manufacturers of

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Iron cut, punched and formed, for making pipe on  
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Estimates given. Are prepared for coating all sizes of  
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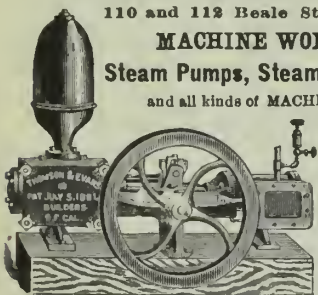
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Steam Pumps, Steam Engines

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Portable Straw-Burning Boilers & Engines.

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Machinery of all kinds furnished at shortest notice.

Heald's Patent Wine-making Machinery,  
including Grape Crushers and Stemmers, Elevators  
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Patent Engine Governor, Etc.



## THE KRIEBEL ENGINE

And Plain Vertical Boiler.

Mounted on a Combined Base.

A very Cheap and Economical

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Made of the very best material.

2 & 3 HORSEPOWER.

Write for Prices.

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We POSITIVELY CURE all kinds of Rupture  
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standing. In from 30 to 60 days, without the  
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TION FROM BUSINESS. Terms: **No Cure,  
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If afflicted, come and see us or send stamp for  
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The very best book for **AGENTS.** Sample pages free.  
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# THE ONLY TRUE FERTILIZER

Is the GENUINE Compound of the MEXICAN PHOSPHATE & SULPHUR  
COMPANY prepared from GUANO and rendered soluble by the application  
of acids.

This manure is an ENRICHER of the soil and not, like others, a  
STIMULANT only; It will do for the land what no other can in rendering it  
PRODUCTIVE without IMPOVERISHMENT.

Its analysis is reliable; Its work is immediate and effective, and for  
results we point with confidence to the ORCHARDS of RIVERSIDE, where  
it has been liberally used for the past three years.

It can be prepared to suit any land, with or without potash, as occasion  
may require. It is rich in PHOSPHORIC ACID, and can be made as rich in  
NITROGEN as the most deficient soil may exact.

## WE GUARANTEE ALL WE CLAIM FOR IT,

Viz.: TO BE THE MOST COMPLETE FERTILIZER ON THIS COAST.

For Sale in Lots to Suit by

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AGENTS.

309 & 311 SANSOME STREET, SAN FRANCISCO, CAL.

N. B.—By courtesy of the Southern Pacific Company we have low rates  
on this Fertilizer to all parts of the State.

## 'Planet Jr.'

Improved Farm and Garden  
Tools for 1891.

BETTER, Both Horse & Hand, THAN EVER;  
better and more money saving. We cannot describe them  
here, but our new and handsome catalogue is free and in-  
teresting. A goodly number of new tools will meet your eye  
there. Among these, Gardener's Harrow, Cultiva-  
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Gardener's & Beet Grower's Special Horse Hoe  
with Pulverizer; Special Furrower, Marker and Ridger, adjustable wings; Sweet Potatoe Horse  
Hoe, four tooth with vine turner; Heavy Grass Edger and Path Cleaner; new Nine Tooth Cultivator  
and Horse Hoe combined; Special Steel Leveler and Pulverizer combined; all interesting, nothing we have  
ever made so practical or perfect. Some improved things too are grafted upon our older favorites. A capital LEVER  
WHEEL, instantly adjustable for depth, is a great feature; put on all '91 goods unless ordered otherwise. Nor  
have our Hand Seed Drills been forgotten in the march of improvement, nor our Double and Single Wheel Hoes, Gar-  
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adopted by us without actual and exhaustive tests in the field. We therefore guar-  
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## BEET SUGAR FACTORIES

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Sugar Chemists, Enigneers and Draughtsmen, and Practical Manufacturers of Beet Sugar,  
ALVARADO, CAL.

The members of this firm have spent many months in the largest beet sugar factories of Europe, studying the  
details of German and French methods of manufacturing sugar from beets, and also at works of the leading manu-  
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furnish designs for factories, plans and drawings of the latest improved machinery now in use in Europe and this  
country. Can also furnish skilled engineers to superintend the construction of factories, and the necessary technical  
skill to operate the works successfully when completed. Will make personal examination of localities with regard  
to their fitness for the production of beet sugar, free of expense, except traveling expenses. Successful results  
guaranteed when the conditions are considered favorable.

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Do you wish to SUCCEED  
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## BORE WELLS

with our famous Well  
Machinery. The only  
perfect self-cleaning and  
fast-dropping tools in use.

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THE GREAT  
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WELL  
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Wholesale and Retail Dealer in

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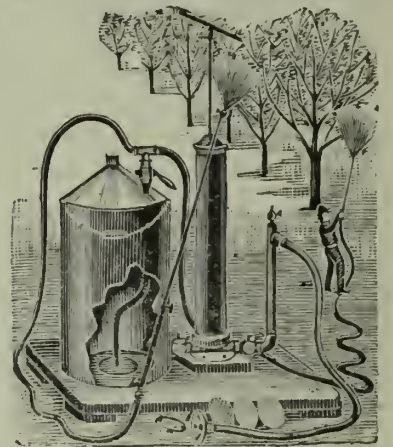
Telephone No. 1746.

**SAN FRANCISCO, CAL.**

## Wainwright's Tree Sprayers

AND WHITEWASHING MACHINES.

SIX CASH PRIZES, SILVER MEDAL AND A DIPLOMA  
at the late State Fair for the best Spray Nozzles and  
Spraying Apparatus. Complete outfits, prices from \$3  
to \$90. Send for Circular and Price List. **Wm. Wain-  
wright, No. 10 Hayes Street, San Francisco.**



Acme Spray Pump.

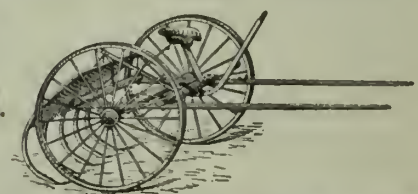
This is a strong, light bucket pump, and is just what  
has been needed by small Orchardists, Farmers, Stock  
and Poultry Raisers. This pump will stand a pressure of  
from 60 to 75 lbs. to the square inch. When charged it  
will keep up a continuous spray from 5 to 15 minutes,  
without pumping, according to the amount of air in the  
reservoir.

Sample pump sent complete for Spraying, with Suction  
Hose, Strainer, Discharge Hose, Rod, one Lime and one  
Chemical Nozzle, for \$13. All my pumps have brass and  
Rubber Valves.

Spray Rods made to spray, from the ground, from 1  
foot to 30 feet high and at any angle.  
For Orchards, Farms, Stockmen and Poultry Raisers  
there is nothing like them.

**CONTRACTS TAKEN FOR LARGE JOBS  
OF WHITEWASHING & TREE-SPRAYING.**

## VINE PRUNERS, ATTENTION!



## Use E. M. T. Hilgard's GRAPE BRUSH RAKE;

With which one horse and a boy can do the work of eight or  
ten men in gathering and bunching the prunings ready for  
loading on wagon. Its cost will be saved in one season's  
work on 65 acres of vines. Address **TRUMAN, HOOKER  
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## The Armstrong Automatic PORTABLE ENGINE AND BOILER.

The Best, Lightest, Cheapest  
Engine in the world. Can be  
arranged to Burn Wood, Coal,  
Straw or Petroleum. 5 or 8 H.P.  
Mounted on skids or on wheels.

**TRUMAN, HOOKER & CO., San Francisco.**

## BEST TREE WASH.

"Greenbank" 98 degrees **POWDERED CAUS-  
TIC SODA** (tests 99.8-10 per cent) recommended by  
the highest authorities in the State. Also Common  
Caustic Soda and Potash, etc., for sale by

**T. W. JACKSON & CO.,**

Manufacturers' Agents,

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**J.I.C. DRIVING** The only hit made that can  
be used on a gentle horse or  
the most vicious horse with  
equal and entire success.  
50,000 sold in 1889.  
75,000 sold in 1890.  
**THEY ARE KING.**  
Sample mailed X.O. for \$1.00  
Nickel \$1.50.  
Stallion Bits Fifty cents extra.  
**RACINE MALLEABLE IRON CO.,** J. P. Davies, Mgr.

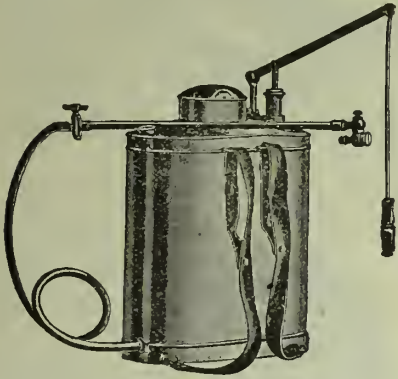
## SMEDBERG & MITCHELL, Insurance,

**GEO. M. MITCHELL, W. R. SMEDBERG—314 CALI-  
fornia Street, San Francisco.** Managers San Fran-  
cisco Department New Zealand F. and M. Insurance Co.,  
Auckland; Orient Insurance Co., Hartford City Agents  
Manchester Fire Insurance Co., Manchester; Caledonian  
Insurance Co., Edinburgh; American Insurance Co.,  
Newark, N. J.



### Stahl's Excelsior Knapsack Sprayer.

For applying insecticides or fungicides, spraying pumps with specially constructed nozzles are necessary. The Excelsior Sprayer, fitted with the improved Vermoral nozzle, answers the purpose admirably. With this machine (of which the engraving below is an exact representation), which is carried on the back, knapsack fashion, a man can spray from five to six acres of vines per day, and the cost of treating an acre in an average season, using the



Bordeaux mixture as indicated above, need not exceed \$8. In all cases where the Bordeaux mixture is employed it will be best to use the Improved Vermoral Nozzles, for the reason they are especially constructed to prevent clogging. Heretofore we have had to rely mainly upon machines imported from France. The average fruit-grower cannot afford to send to France for a machine that will cost him from \$18 to \$25, this price being entirely beyond the reach of the average farmer, gardener and fruit-grower. The Excelsior Knapsack Sprayer is guaranteed to do the work satisfactorily and is sold with complete outfit for \$14. See advertisement in this paper.

**A BARBED-WIRE COMBINE.**—It is telegraphed from Chicago that the outlook for a combination of barbed-wire manufacturers in this country is good. They met two weeks ago in Pittsburg, formed a plan of consolidation, and that session is now being continued in Chicago. The Columbia Wire Company has been incorporated under the favorable laws of Kentucky, stock-hooks opened, and substantially all the manufacturers, except the Washburn-Moen Company, are, or will be, subscribers. The new company will control all patents, contracts, etc., issue new licenses and establish prices.

### Our Agents.

OUR FRIENDS can do much in aid of our paper and the cause of practical knowledge and science, by assisting Agents in their labors of canvassing, by lending their influence and encouraging favors. We intend to send none but worthy men.

H. KELLEY—Modoc and Lassen Cos.  
GEO. WILSON—Sacramento Co.  
J. P. QUINETTE—San Francisco.  
J. C. HOAG—San Francisco.  
J. H. CROSSMAN—San Bernardino Co.  
F. W. KNAPP—Amador Co.  
GEORGE EVANS—Santa Clara Co.  
MRS. M. E. DUDLEY—Ventura Co.  
W. U. WADSWORTH—Sutter and Yuba Cos.  
WILSON MCNICOLE—Fresno Co.  
ANDREW KRID—Monterey Co.  
FRANK S. CHAPIN—Colusa Co.  
HELEN B. KING—San Benito Co.  
WM. M. HILLBARY—Oregon.  
WM. HOLDER—Oregon.  
H. G. PARSONS—Central California.  
ELMER JENKINS—Del Norte Co.  
H. C. HENKLE—Capay Valley.

**"THE GREAT WATER PROBLEM."**—Col. L. F. Moulton of Colusa has just published an important pamphlet on the improvement of the Sacramento river, so as to avert floods and the great injuries and damages resulting therefrom. He has studied this subject since 1852 and has made many surveys, and has, in fact, been in constant observation and contemplation of the subject. His pamphlet is accompanied by a map showing the proposed West-Side drainage canal. Parties interested should apply to Col. Moulton for a copy of his publication.

**ORANGE SELLING.**—There seems to be a general movement on the part of the Southern orange-growers to reject the terms on which the orange-buyers proposed to operate this year as described in last week's RURAL. Growers do not propose to sign the contracts which provide for grading, so as to throw a lot of culls back upon their hands. It looks very much as though the buyers' contracts would have to be modified or the growers will seek other means of disposing of their fruit.

**A Remarkable Case.**—Mr. Walter Wheeler, of the Washington Mills, Lawrence, Mass., for two years afflicted with varicose veins, accompanied by a troublesome eruption, was completely cured after taking only eight bottles of Ayer's Sarsaparilla.

### NEWSPAPER AGENTS WANTED.

Extra inducements will be offered for a few active canvassers who will give their whole attention (for a while at least) to soliciting subscriptions and advertisements for this journal and other first-class popular newspapers. Apply soon, or address this office, giving address, age, experience and reference. Special inducements to old agents.

DEWEY & CO., Publishers,  
No. 220 Market St., S. F.

### Please Remit.

The beginning of a new year is a good time to settle up the debts of the old ones. We are obliged to remind those who owe the PRESS on subscription account, that it will be a great convenience to us if they will soon remit what is due. Those who can also pay in advance will also do us timely and well-appreciated favor. We are doing our best to present a very valuable paper, representing carefully, earnestly and conscientiously the welfare of its intelligent readers and the best interests of the arts, sciences and mining and mechanical industries of the Pacific States.

To do this we deprive ourselves of some of the most lucrative lines of patronage available to the average newspaper.

By paying as promptly as possible, friends, you will greatly encourage us in our sincere efforts to favor you and the best interests of your calling.

### List of U. S. Patents for Pacific Coast Inventors.

The following brief list by telegraph, for Jan. '14 will appear more complete on receipt of mail advices:

California—Clarence V. Greenamyer, bench clamp for pipe tongs and wrenches; also, adjustable pipe wrench; Lionel Heynemoll, cable street railway; Peter S. Jackson, lengthening metallic beams; Jose Jardine, steering apparatus; Edward G. King, compass attachment for field glasses; Edward M. Knight, hiter; Patrick Noble, cable railway; George A. William, coffee-pot; all of San Francisco. Daniel B. Baker, sadiron, San Jacinto; Daniel M. Baldwin, seedling machine, Florence; Loris P. Carl, tether pin, Ferris; Alfred Dugden, knife sharpener, Santa Barbara; Willis D. Eitel, train fare punch, San Jose; John J. Coker, whiffletree coupler, Los Angeles; James Lyman, globe, San Jose; James R. Phelps, spreader for galting horses, Sacramento.

Oregon—Horace T. Curre, rail-cleaning and lubricating attachment for locomotive, Albina; Albert M. Grubbs, railway switch, Forest Grove.

Washington—David H. McFall, carpet-stretcher, Ellensburg.

NOTE.—Copies of U. S. and Foreign patents furnished by Dewey & Co., in the shortest time possible (by mail or telegraphic order). American and Foreign patents obtained, and general patent business for Pacific Coast inventors transacted with perfect security, at reasonable rates, and in the shortest possible time.

### CHICAGO, MILWAUKEE & ST. PAUL RAILWAY.

Electric-Lighted and Steam-Heated Vestibuled Trains between Omaha, Council Bluffs and Chicago.

Steam-Heated and Electric-Lighted Vestibuled Trains between Chicago, St. Paul and Minneapolis. Finest Dining Cars in the World.

Free Reclining Chair Cars between Omaha and Chicago.

Fast Mail Line between Chicago, Milwaukee, St. Paul and Minneapolis.

Transcontinental Route between Omaha, Council Bluffs and Chicago.

5700 miles of road in Illinois, Wisconsin, Minnesota, Iowa, Missouri, South and North Dakota. Everything First-Class.

First-Class People patronize First-Class Lines.

Ticket Agents everywhere sell Tickets over the Chicago, Milwaukee & St. Paul Railway.

W. T. ALLEN,  
Pacific Coast Passenger Agent,  
SAN FRANCISCO, CAL.

Office, No. 138 Montgomery St., under Occident Hotel.

**CALIFORNIA NURSERY COMPANY.**—Our nurserymen are making more effort than usual to render their announcements attractive this year, and it is a very praiseworthy thing to do. The advertisement of the California Nursery Company is an illustration of this fact. The catalogues of this establishment, which we have received, show how wide their resources are, both in economic and ornamental lines. The catalogue of ornamental trees and plants last issued should be read by all horticulturists. If it does not contribute largely to the advance of tree-planting and garden work on this coast we shall be very much mistaken. The descriptions are excellent and prepared with great care.

### A Common Sense Calendar.

The calendars that come in the fall are as numerous as the flowers that bloom in the spring. Many further resemble the flowers in that they come without being sent for, and fade after a very brief existence.

The most sensible and business-like Calendar that we have seen comes to us from N. W. Ayer & Son, Newspaper Advertising Agents, Philadelphia, and bears their "Keeping everlasting at it" imprint. It is so large and clear that its dates can be easily distinguished across an office, and is printed in a manner to reconcile the most fastidious to its company for a year. It is sent to any address, postpaid, on receipt of 25 cents.

### Don't Fail to Write.

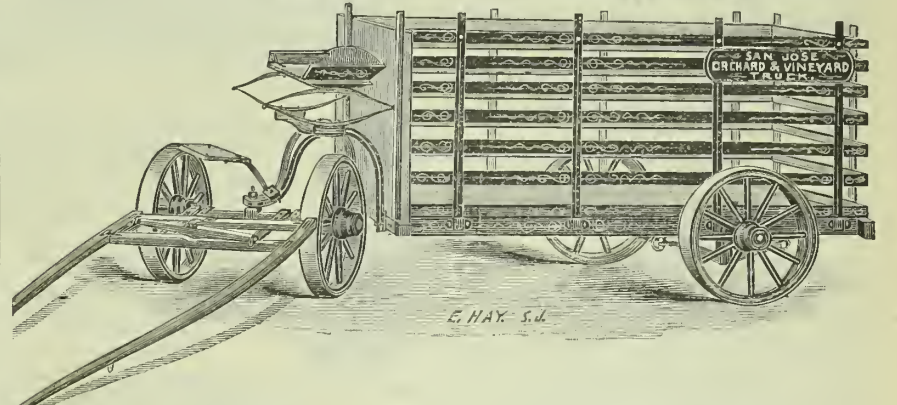
Should this paper be received by any subscriber who does not want it, or beyond the time he intends to pay for it, let him not fail to write us direct to stop it. A postal card (costing one cent only) will suffice. We will not knowingly send the paper to any one who does not wish it, but if it is continued, through the failure of the subscriber to notify us to discontinue it, or some irresponsible party requested to stop it, we shall positively demand payment for the time it is sent. LOOK CAREFULLY AT THE LABEL ON YOUR PAPER.

### Irrigated Lands to Rent.

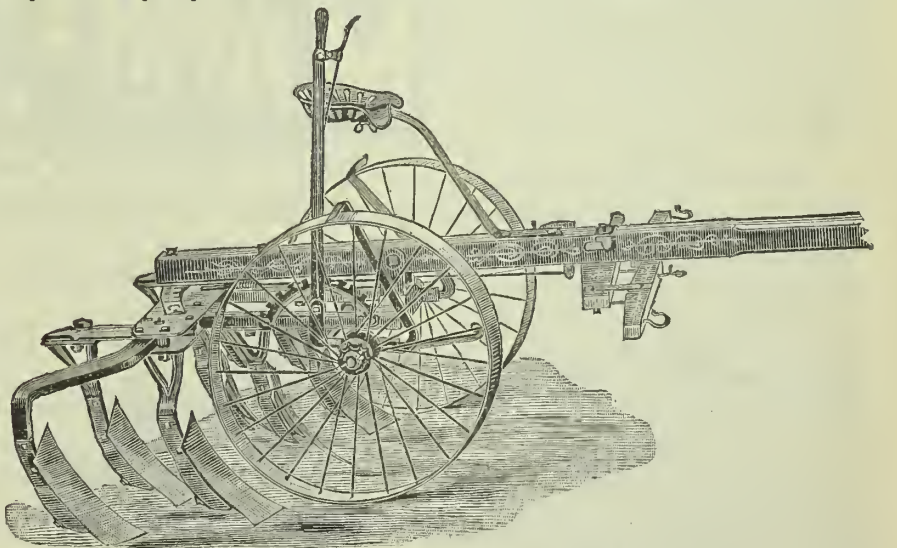
A nice shaded homestead, with flowing artesian well, and 160 acres of improved land, to rent for a moderate share of the crops, or small cash rental. Over 20 acres of alfalfa and 7 of bearing orchard; also, 320 acres adjoining, without water; within seven minutes of Tulare City. Apply to E. M. Dewey, Porterville, or A. T. Dewey, 220 Market St., S. F.

**DEWEY & CO.**  
AMERICAN AND FOREIGN  
PATENT SOLICITORS  
ESTABLISHED 1860  
OFFICE OF THE  
"Mining and Scientific Press"  
Pacific Rural Press  
No. 220 Market St.  
TAKE ELEVATOR No. 12 FRONT ST.  
SAN FRANCISCO, CAL.

## THE SAN JOSE ORCHARD AND VINEYARD Truck and Cultivator.



Just the thing for the Orchard and Vineyard, built low, with Goose Neck in front, enabling a very short turn, low wheels, broad tire, with springs or without, built any size or capacity.



Greatly Improved, made entirely of Iron and Steel, easily handled and adjusted; teeth extend outside of wheels, in fact the Most Perfect Cultivating Tool ever put on the market.

Write for Circulars. Address  
**SAN JOSE AGRICULTURAL WORKS, San Jose, Cal.**

**"ASPINWALL"**

# POTATO PLANTER

DISTRIBUTES FERTILIZERS

The Triumph of Modern Invention.

ILLUSTRATED CIRCULAR SENT FREE.

**ASPINWALL MFG CO.,**  
TRUMAN, HOOKER & CO., AGENTS, SAN FRANCISCO, CAL.

PLANTS  
**CORN, BEANS, ENSILAGE, ETC.**

Mention this paper.

Three Rivers, Michigan.

**SPRAY YOUR FRUIT TREES AND VINES.**

Wormy Fruit and Leaf Blight of Apples, Pears, Cherries, Plum Curculia prevented by spraying with the **EXCELSIOR SPRAY PUMP, GRAPE and POTATO ROT** prevented by using **EXCELSIOR KNAPSACK SPRAYER**; also injurious insects which infest Currants, Gooseberries, Raspberries and Strawberries. **PERFECT FRUIT ALWAYS SELLS AT GOOD PRICES.**

Catalogue showing all injurious insects to fruits mailed free. Large stock of Fruit Trees, Vines and Berry Plants at **Bottom Prices.**

Address, **WM. STAHL, Quincy, Illinois.**

**The German Savings and Loan Society,**  
526 California Street.

**DIVIDEND NOTICE.**

FOR THE HALF-YEAR ENDING DECEMBER 31, 1890, a dividend has been declared at the rate of five and forty-hundredths (5 40-100) per cent per annum on Term Deposits, and four and one-half (4 1/2) per cent per annum on Ordinary Deposits. Payable on and after FRIDAY, January 2, 1891.

GEO. TOURNEY, Secretary.

**COLTON DENTAL ASSOCIATION,**  
Gas Specialists,

Phelan Building, Parlors 6, 7, 8, 9 and 10.  
Entrance, 806 Market Street.

The only office in this city that makes and gives the celebrated "COLTON GAS," which has a world-wide reputation for its purity and efficacy in the painless extraction of teeth. The large quantity daily used insures the Gas to be always fresh and pure. Over 35,000 references. Recommended and indorsed by all the leading physicians, surgeons and dentists on the coast.



## Breeders' Directory.

Six lines or less in this Directory at 50c per line per month.

### HORSES AND CATTLE.

J. E. ROSE, Lakeville, Sonoma Co., Cal., breeder of Thoroughbred Devons, Roadsters and Draft Horses.

P. PETERSEN, Sitas, Colusa Co., Importer & Breeder of registered Shorthorn Cattle. Young bulls for sale.

WILD FLOWER STOCK FARM, Fresno Co. A. Heilbron & Bro., Props., Sac. Breeders of thoroughbred strains and Cruikshank Shorthorns; also Registered Herefords; a fine lot of young bulls in each herd for sale.

CHARLES E. HUMBERT, Cloverdale, Cal., Importer and Breeder of Recorded Holstein-Friesian Cattle. Catalogues on application.

ERCHERON HORSES.—Pure bred horse and mares, all ages, and guaranteed breeders, for sale at my ranch near Lakeport, Lake Co., Cal. New catalogue now ready. Wm. B. Collier.

WILLIAM NILES, Los Angeles, Cal. Thoroughbred Registered Holstein and Jersey Cattle. None better.

REGISTERED HOLSTEIN CATTLE. Also best thoroughbred Poultry and Eggs. Address Hibbard & Ellis, Santa Rosa Breeding Association, Cal.

P. H. MURPHY, Perkins, Sac. Co., Cal., Breeder of Recorded Shorthorn Cattle and Poland China Hogs.

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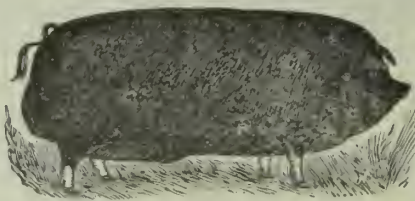
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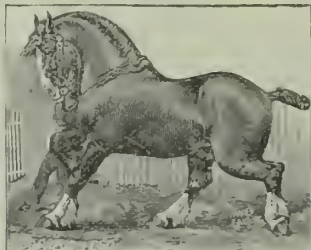
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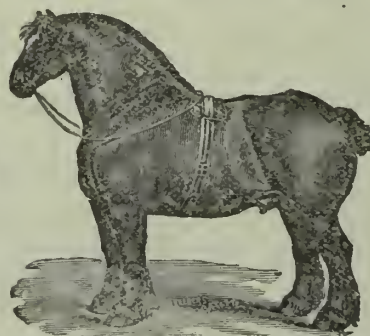
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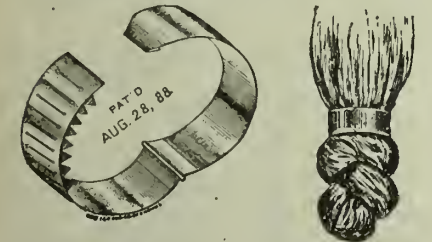
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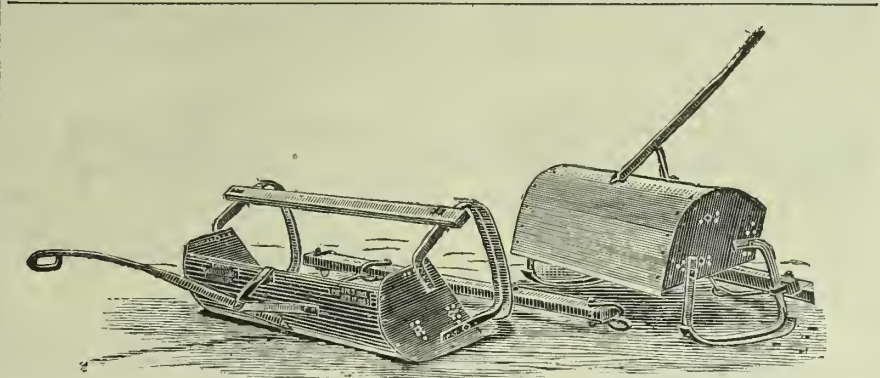
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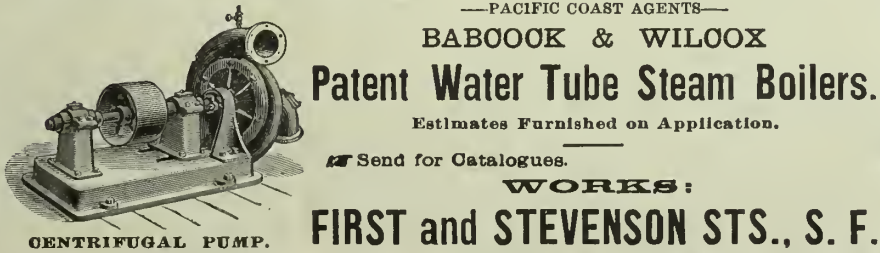
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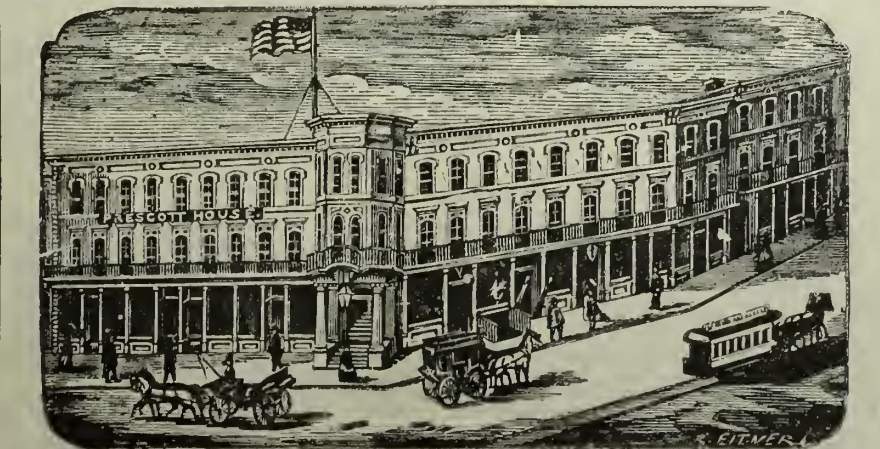
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Dividends paid to Stockholders.. 627,500  
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General Banking. Deposits received, Gold and Silver.  
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## S. F. MARKET REPORT

## Market Review.

## DOMESTIC PRODUCE, ETC.

SAN FRANCISCO, Jan. 14, 1891.  
General trade in farm products is quiet, partly due to fewer lines to be dealt in, but largely due to the uncertain feeling of operators. The unsettled condition of the Behring sea question, and fears entertained that the situation may become more strained, cause farm products to suffer, owing to England being our largest customer. The silver question is another disturbing factor which will not be settled until we have free coinage, which will be in the interest of wheat-growers. The money market is still easing. The foreign wheat markets have held strong throughout the week. The following is to-day's cablegram:

LIVERPOOL, Jan. 14.—Wheat—Steady. California spot lots, 7s 6d to 7s 9½d; cargoes off coast, 38s 9d; just shipped, 38s 6d; nearly due, 38s 9d; cargoes off coast, firmer; on passage, improving; Mark Lane wheat, firmer; English country markets very firm; wheat and flour in Paris, firm; weather in England, colder.

## Foreign Grain Review.

LONDON, Jan. 12.—The *Mark Lane Express*, in its review of the British grain trade, says: English wheat is held at 1s. advance; 6d. is obtained. Foreign wheat is firm. Oats are dull. At to-day's market full prices were paid for spot corn, and the inquiry for forward delivery improved.

## Liverpool Wheat Market.

The following are the closing prices paid for wheat options per cwt. for the past week:

	Jan.	Feb.	Mar.	Apr.	May.	June.
Thursday.....	78½d	78½d	79½d	79½d	78½d	78½d
Friday.....	78½d	78½d	79½d	79½d	78½d	78½d
Saturday.....	78½d	78½d	79½d	79½d	78½d	78½d
Sunday.....	78½d	78½d	79½d	79½d	78½d	78½d
Monday.....	78½d	78½d	79½d	79½d	78½d	78½d
Tuesday.....	78½d	78½d	79½d	79½d	78½d	78½d

The following are the prices for California cargoes or off coast, nearly due and prompt shipments for the past week:

	O. C.	P. S.	N. D.	Market.
Thursday.....	38½d	38½d	38½d	Firm.
Friday.....	38½d	38½d	38½d	Strong.
Saturday.....	38½d	38½d	38½d	Strong.
Sunday.....	38½d	38½d	38½d	Firm.
Monday.....	38½d	38½d	38½d	Quiet.
Tuesday.....	38½d	38½d	38½d	Quiet.

## Eastern Grain Markets.

The following shows the closing prices of wheat at New York for the past week, per bushel:

	Jan.	Feb.	Mar.	Apr.	May.	July.
Thursday.....	103½	104½	105½	105½	104½	104½
Friday.....	103½	104½	105½	105½	104½	104½
Saturday.....	103½	104½	105½	105½	104½	104½
Sunday.....	103½	104½	105½	105½	104½	104½
Monday.....	103½	104½	105½	105½	104½	104½
Tuesday.....	103½	104½	105½	105½	104½	104½

The closing prices for wheat have been as follows at Chicago for the past week, per bushel:

	Jan.	Feb.	Mar.	Apr.	May.	July.
Thursday.....	97½	97½	97½	97½	97½	97½
Friday.....	97½	97½	97½	97½	97½	97½
Saturday.....	97½	97½	97½	97½	97½	97½
Sunday.....	97½	97½	97½	97½	97½	97½
Monday.....	97½	97½	97½	97½	97½	97½
Tuesday.....	97½	97½	97½	97½	97½	97½

NEW YORK, Jan. 14.—Wheat—\$1.05½ for January, \$1.05 for February, \$1.06½ for March, \$1.05 for May, \$1.03 for June, and 98½c for July.

CHICAGO, Jan. 14.—Wheat—97½ for May.

## Visible.

NEW YORK, Jan. 12.—The visible supply of grain on Saturday, Jan. 10th, as compiled by the New York Produce Exchange, was as follows: Wheat, 25,518,000 bushels, a decrease of 328,000; corn, 2,815,000 bushels, an increase of 57,000; oats, 3,771,000 bushels, a decrease of 25,000; barley, 3,811,111 bushels, a decrease of 248,000.

## Eastern Wool Markets.

NEW YORK, Jan. 12.—There is a good run of trade in wool here; combing grades are all cleared out. All holders speak hopefully of the spring market and are not disputed by any of the mill firms of weight. Desirable fleeces have been certainly stronger in the last 10 days, and a large movement in Texas wools leaves them stiffly quoted. It is expected that the favorable winter will work off the surplus of old woolen goods and that manufacturers will promptly produce attractive styles, so there is no giving way in lines that must come into play.

Boston reports show a continued activity, with strong prices for fleeces and Territory in grease. Sales, 376,000 lbs foreign, 2,147,000 lbs domestic. California spring and fall show the full last figures.

The Philadelphia market is waking up with a fair volume of business, and the strong tone of prices has been responded to. The supply is moderate.

## Miscellaneous.

NEW YORK, Jan. 12.—Hops quiet and brewers' wants moderate. No foreign orders are noted. Sellers oppose all attempts to materially break down the nominal rates of last week. Exports the past week aggregate 752 bales.

Hides have had a good trading in common early in the week, with liberal sales of better grades at the close, chiefly at private terms. Tanners bid 12½c for best, with offerings free at 13c.

The easy prices of raisins tend to call out more trade. The qualities are now comprehensively sorted, which gives buyers confidence, particularly in the grocery grades. Fine layers in boxes range as before. Three Crown sell at \$1.60 to \$1.75; bagged, 6½ to 7c per lb. The stock is heavy, but flooding arrivals have ceased. A recent Western assertion that grapes have been packed here in cartons as raisins meets only ridicule.

Apricots steady, with sales at 18c in bags and 19c in boxes. Grapes and pears from cold storage show a moderate trade.

Honey is stiff at 7 to 7½c for amber and white. All that is here will be wanted. Dried grapes, spot, sell at 4½c and are slow. Common raisins are too cheap for their promised introduction.

Prunes, four sizes, 11c; divided continue unchanged.

## Local Markets.

	Buyer 1891.	Seller 1891.	Buyer 1891.	Seller 1891.
Thursday.....	156	154½	107½	106½
Friday.....	156	154½	107½	106½
Saturday.....	156	154½	107½	106½
Sunday.....	156	154½	107½	106½
Monday.....	156	154½	107½	106½
Tuesday.....	156	154½	107½	106½

\*After August. †For the year.

	WHEAT.	Barley.	Buyer 1891.	Seller 1891.
Thursday.....	150	149½	143½	143½
Friday.....	150	149½	143½	143½
Saturday.....	150	149½	143½	143½
Monday.....	150	149½	143½	143½
Tuesday.....	150	149½	143½	143½

BAGS—The market is heavy for standard-size at 6½ to 6¾c. The farmers in Washington are agitating for a jute-mill by the State at the penitentiary.

BARLEY—The market is fairly strong under moderate supplies and a good demand. In futures, trading on Call has been light. The following are to-day's Call Board sales:

Morning Session: Buyer season—400 tons, \$1.53; 100, \$1.52½. No. 1 Brewing, buyer season—100 tons, \$1.58 ½ cwt. Afternoon Session: Buyer season—400 tons, \$1.51½ cwt.

BUTTER—The market is easy, under freer receipts and local supplies increasing which lessens the buying demand. From up north there is only a fair inquiry, as the shipments from the Central States are quite large.

CHEESE—Receipts show a slight increase, but as stocks are exhausted all coming in is readily absorbed.

EGGS—The market is easy. The supply of Californian is increasing. The trade confines purchases as much as possible.

FLOUR—The market is fairly steady for leading brands. The offerings of outside brands are quite free.

WHEAT—The sample market is firm. Considerable Oregon and Washington from east of the Cascades is coming to hand. This wheat, or at least the bulk, is preferred by exporters to France, but with English exporters it is not in much favor. Puget Sound advices report about 35,000 tons in the warehouses. This was put out for bear purposes up north, so as to get holders to sacrifice their grain. In futures, trading on Call has been light. The following are to-day's Call Board sales:

Morning Session: Buyer 1891—100 tons, \$1.47½; 300, \$1.47½. Buyer season—100 tons, \$1.42½; 500, \$1.42½; 900, \$1.42½ cwt. Afternoon Session: Buyer 1891—600 tons, \$1.47. Buyer season—1000 tons, \$1.41½; 100, \$1.41½ cwt.

## Market Information.

## Produce Receipts.

Receipts of produce at this port for the week ending Jan. 13th, were as follows:

Flour, qrs. sks.	98,194	Middlings, sks.	3,521
Wheat, cts.	105,547	Alfalfa,	314
Barley, "	24,517	Chicory, bbls.	110
Rye, "	8,416	Broomcorn bbls.	274
Oats, "	2,737	Hops, bbls.	81
Corn, "	3,944	Wool, "	1,333
*Butter, "	383	Hay, tons.	10
do bbs	112	Straw, "	100,790
do bbs	112	Wine, gals.	34,860
do kegs	42	Brandy, "	2,312
do tubs	384	Raisins, bxs.	212
do ½ hxs	10	Honey, cs.	29
†Cheese, cts.	384	Walnuts, sks.	1,629
do bbs	10	Flaxseed, "	110
Eggs, doz	22,330	Mustard, "	110
do " Eastern.	20,400	Almonds, "	110
Beans, cts	819	Peanuts, "	110
Potatoes, sks	28,171	Popcorn, "	110
Onions, "	1,156	Beet sugar, bbls.	110
Bran, "	13,220	do do sks.	110
Buckwheat, "	13,220	do do sks.	110
*Overland, cts.	13,220	do do sks.	110
†Overland, cts.	13,220	do do sks.	110

## Cereals.

The *Mark Lane Express* of Dec. 22 reports as follows: The fall of snow which has occurred during the past week has been very welcome, forming a protective covering to the autumn sowings, and removing fears of injury from the penetrative effects of continued frosts. Live-stock are doing well, the air being healthy for them so long as they are well fed. To barn and byre, stockyard and stackyard the farmers' attention is now restricted. Nothing is doing beyond the steading, and the labor bill is reduced to a minimum. Market deliveries remained fairly liberal up to Wednesday, but since that date the fresh fall of snow has made road transit difficult, while the dark days, often foggy as well, have delayed railway traffic very considerably. On the Thames, and other rivers, navigation is already difficult, owing to floating masses of ice. The same wintry impediments are announced from France, and most of the Dutch rivers and canals are given over, for the time being, to the skaters. Thaw, however, is reported from parts of the lower Danube. The London average shows threepence improvement. To the Government estimates of this year's harvest it may be briefly mentioned that the influence of the report is encouraging to wheat holders, who are assured that the crop does not exceed 73,354,484 bushels against 73,202,773 bushels last year. This is a yield of 30.74 bushels to the acre, and effectively combats the undue optimism against which we have ourselves contended. With respect to barley, which is reckoned a yield of 73,933,801 bushels, the deliveries since harvest will hardly be proved to indorse so liberal a view.

The local wheat market has held to fairly strong prices. The strength of the market is due to strong holding, prospective silver legislation and a freer supply of tonnage in the near future. Buyers state that the strength of the market is largely based on higher prices abroad, which are due to lessened shipments from Russia, and as soon as the ice embargo is raised in the Black Sea, free shipments will follow. While the latter may result, yet the fact is ignored that English farmers are small holders, having been free sellers, and with smaller available home supplies the wheat market will not break, but, on the contrary, may advance slightly. Receipts from up north are lessening. The money market is growing easier. Advances from the agricultural districts continue favorable. The cold weather is generally accepted to be of advantage to the seeded lands. Where the plant has made a start, the cold checks its upward growth and causes its growth to go into the roots, which is calculated not only to make the plant stronger but to cause it to stool out.

The Tacoma *Ledger*, January 11, gives the list of

wheat vessels as follows at the following ports: Tacoma—ship Marion, ship Senator, ship Honolulu, ship Milverton, ship Constance. Portland—British ship Cornuvia, American ship Solitaire, ship City of Philadelphia for charter, British ship Annesley.

Barley is strong at full figures. Brewers have been taking fair quantities. One sale of nearly 3000 sacks was made the past week at \$1.55. The grade is nearly gilt-edge. This parcel goes into immediate consumption. There is a good demand for seed. From all obtainable information we feel justified in stating that the acreage to be seeded will be up to if not exceeding the largest recorded.

Oats are strong at a slight advance. The demand is chiefly for immediate use. Cold, frosty weather causes more feeding of grain. The available supply up north is said to be light. There is a good demand for seed.

Corn shows more strength. It is claimed that the supply in this State will barely meet the requirements of feeders and others before the new-crop season.

Rye is steady with a firm tone.

## Feedstuff.

Ground feed is firm with a good demand ruling. Continued cold weather compels feeding in many localities where it would not be necessary with warm growing weather.

Hay is strong with \$19 obtainable in a small way for the more choice grades. The feeding is large in this State and also up north. Continued cold weather keeps grass back and also points to a later season for new-crop hay.

## Live-stock.

Bullocks are steady. Mutton sheep are higher under a growing scarcity. Hogs are fetching a slight advance. Small calves are lower owing to more offering. Milch cows and horses are essentially unchanged.

The market for dressed cattle is quoted as follows [to obtain the price on foot, take off from the price for stalled-one-third to one-half, according to the nature of the feed and time fed; and for grass-fed take off the price from 40 to 60 per cent]:

HOGS—On foot, light grain fed, 4¼ to 4½ cwt lb; dressed, 7 to 8½ cwt lb; heavy, 4 to 4½ cwt lb; dressed, 6½ to 7½ cwt lb. Stock bogs, 3½ to 4 cwt lb.

BEEF—Stall fed, 7 to 8 cwt lb; grass fed, extra, 6½ to 7 cwt lb; first quality, 5½ to 6 cwt lb; second quality 4½ to 5 cwt lb; third quality, 3½ to 4 cwt lb; bulls and thin cows, 2 to 3 cwt lb.

VEAL—Small, 6 to 7 cwt lb; large, 5 to 6 cwt lb.

MUTTON—Wethers, 8 to 9 cwt lb; ewes, 7½ to 8½ cwt lb; lamb, 9 to 10 cwt lb; spring lamb, 15c.

## Fruits.

Apples are still in liberal supply; only the more choice gilt-edge fetch top prices. Oregon, Washington and the northern counties of this State are sending in liberal supplies. Any selling pressure is met by lower bids from buyers.

Los Angeles is still sending in strawberries. The last consignment had to be closed out at prices barely covering freight charges.

Oranges are in good supply and as the weather is cold, sellers find some difficulty in placing consignments. Concessions are necessary to close out a large consignment. The East continues to draw freely. Up north the demand is only fair.

Dried fruits are fairly firm. Holders evince more confidence in the future. The stock is not large, and as it is fairly concentrated, many look for an improvement.

Raisins are slightly more inquired after. The low prices at the East brought in large buyers who appear to be concentrating, and as the market cleans up a stronger tone is noticeable.

## The Orange Crop.

The Sacramento *Bee*, Jan. 12, says: E. Platt has returned from Southern California where he has been for some time. He reports a heavy increase in the yield of California oranges. The California crop this season will reach 4000 carloads or 1,200,000 boxes of the average weight of 65 pounds net. The enormous gain over last year, when the crop was about 750,000 boxes, is 450,000. The crop is only beginning to be moved in Southern California, where the shipments so far have not been much over 50 carloads. A great many new orange groves are being planted this year, and the demand for trees compelled the importation of great numbers from Florida. These figures make an interesting comparison with the returns from Florida and show that California is increasing her yield of oranges much more rapidly than the land of the everglades. Last year Florida produced about 2,000,000 boxes while this year the product aggregated half a million boxes more. These figures show that California is making far greater progress proportionately in this direction than Florida. About 2000 carloads of the Florida crop has been moved already.

## Vegetables.

Heavy frosts the past week caused considerable damage to the more tender spring vegetation. The southern counties continue to send us early vegetables.

Onions are barely steady. Free receipts are against holders. There is a better supply of table onions. Heavy receipts of potatoes with large supplies stored handy for shipping, cause a weak market. Buyers do not appear disposed to anticipate their wants. New while in fair supply, do not come in freely enough to warrant quoting. Sweet potatoes are in light receipt.

## Miscellaneous.

The market is about bare of Eastern poultry, which causes a better feeling for California stock. Broilers, friers and turkeys are higher.

Beans show a fair degree of strength. The receipts are light while the demand is fair.

Honey is strong under light obtainable supplies and a good demand.

Hops are scarce and hard to get even at top prices. Contracting for this year's crop is reported in this State, Oregon and Washington, but the prices we are unable to get.

Wool is still dull, but it is claimed that the situation is favorable to growers.

For seeds the quotations are unchanged. The demand is fair.

Exports by sea the past week aggregate as follows: Wheat cts, Havre, 64,199, Cork, 48,027; Central America, 1000. Flour bbls, China, 14,402; Japan, 776, Guayquil, 100; Panama, 610; Central America, 3011. Corn cts, Central America, 1569. Wine

gals, New York, 321,921; Japan, 1562; Mexico, 1579; Philadelphia, 553; Washington, 206; Brooklyn, 558. Raisins boxes, Auckland, 210. Dried fruits lbs, Japan, 1220. Beans lbs, Panama, 1000; New York, 18,363. Barley cts, New York, 4908.

From the *Commercial News* of Jan. 14th the following summary of tonnage movement is compiled: On the way to 1891. 1890. San Francisco..... 283,171 181,443 San Diego..... 15,475 11,121 San Pedro..... 7,478 3,840 Oregon..... 36,615 26,157 Puget Sound..... 12,247 17,170

Totals..... 354,986 239,731

In port at San Francisco, disengaged..... 3,382 21,196 " engaged for wheat..... 44,653 73,870

San Diego..... 3,816

San Pedro..... 16,982

Columbia River..... 17,170

Puget Sound..... 354,986 239,731

Totals..... 64,717 98,862

To get the carrying capacity, add 65 per cent to the registered tons as given above.

From July 1, 1890, to Dec. 31, 1890, the following are the exports from this port: 1890. 1889.

Wheat, cts..... 5,859,269 6,233,523

Flour, bbls..... 567,116 546,302

Barley..... 176,369 815,865

## Domestic Produce.

Extra choice in good packages fetch an advance on top quotations, while very poor grades sell less than the lower quotations. WEDNESDAY, Jan. 14, 1891.

BEANS AND PEAS.	Softshell..... 14 @ 15	Paper shell..... 15 @ 16
Soy, cts..... 3 50 @ 3 90	Brazil..... 19 @ 20	Pecans small..... 12 @ 14
Butter..... 2 65 @ 2 95	do large..... 15 @ 18	Almonds..... 5 @ 6
Peas..... 2 50 @ 2 90	do large..... 15 @ 18	Almonds..... 5 @ 6
Flax..... 2 20 @ 2 40	do large..... 15 @ 18	Almonds..... 5 @ 6
Small White..... 2 50 @ 2 80	do large..... 15 @ 18	Almonds..... 5 @ 6
Lima..... 3 10 @ 3 40	do large..... 15 @ 18	Almonds..... 5 @ 6
Field Peas, hkye..... 1 65 @ 1 85	do large..... 15 @ 18	Almonds..... 5 @ 6
do green..... 2 50 @ 2 90	do large..... 15 @ 18	Almonds..... 5 @ 6
do Niles..... 1 50 @ 1 65	do large..... 15 @ 18	Almonds..... 5 @ 6

Split..... 4½ @ 5 Silver..... 3 @ 3 20

CHOICE CORN. POTATOES.

Choice to extra 70 @ 90 00 Early Rose, aks. 80 @ 95

Fair to Good..... 52 50 @ 65 00 Tomatoes..... 1 10 @ 1 30

Poor..... 42 50 @ 47 50 River Reds..... 1 10 @ 1 30

CHICORY. Burbanks, river..... 75 @ 1 95

California..... 51 @ 6 do Salinas..... 1 30 @ 1 60

German..... 6 @ 6 do Petaluma..... 3 50 @ 5 00

DAIRY PRODUCE, ETC. Jersey Blues..... 1 00 @ 1 25

BUTTER. Poultry and Game.



[Furnished for publication in this paper by officer in charge of branch Signal office, Division of the Pacific]

EXPLANATION. Cl. for clear; Cy, cloudy; Fr., fair; Cm., calm;      indicates too small to measure. Temperature and weather at 5 P. M. (Pacific Standard time) with amount of rainfall in the preceding 24 hours. T indicates trace of rainfall. P C, partly cloudy. Rn., rain.

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Lawayino (from Genoa) Olives, two years, \$20 per 100.  
Picholine Olives, two years, \$6 to \$10 per 100, \$50 to \$50 per 1000.Riparia Grapes, two years, rooted, \$15 per 1000.  
Blackberries, Lawson and Kittatinny, \$10 per 1000.  
Guavas, ready to fruit this season, \$15 per 100.  
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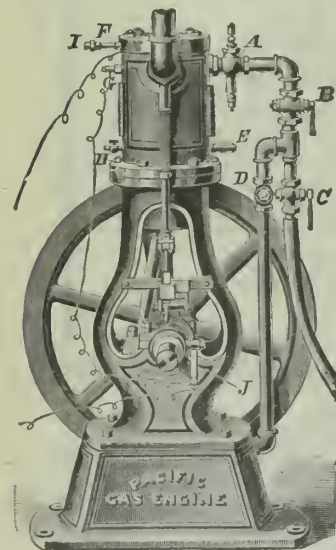
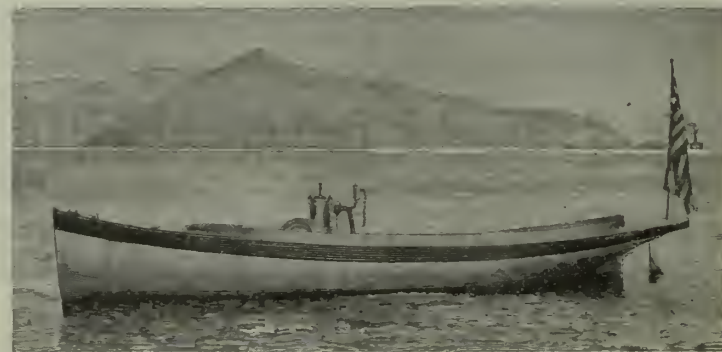
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handle, and are strong and heavy; the valves being made entirely of metal or rubber, and will not be affected by the corrosive  
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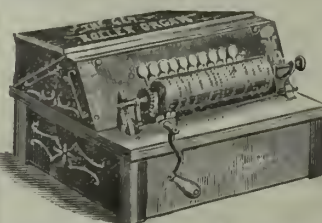
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#### Death of the Hawaiian Sovereign.

On the afternoon of Thursday, Dec. 4th, the U. S. warship Charleston arrived in the Bay of San Francisco hearing David Kalakaua, King of Hawaii, as a visitor to California, and on Thursday afternoon, Jan. 22d, the same vessel will depart, bearing his body to Honolulu. He came an invalid seeking recreation and hoping to find also restoration. He was received with marked hospitality, and, so far as his strength allowed, accepted and enjoyed the welcome extended to him as the representative of our neighbor nation in the Pacific. But his malady was evidently too deep-seated for cure; he became worse instead of better, and died on Tuesday afternoon, Jan. 20th.

The portrait upon this page gives a representation of this distinguished personage. He was the seventh ruler of what is now known as the Kingdom of Hawaii. He was a little over fifty-five years of age, having been born November 16, 1836. He was a son of Kapaakea

and Keohokale. February 12, 1874, he was elected king.

King Kalakaua was brought more prominently before the people of the United States by his visit to this country in 1876, when he was well received by President Grant and by citizens generally. The object of this visit was to promote friendly relations with the United States and to secure the ratification of a Treaty of Reciprocity by the United States Senate, in which he was successful. In 1881 King Kalakaua undertook a tour of the world, for the purpose of establishing pleasant relations with foreign Governments and to secure their consent to the emigration of their subjects to the Hawaiian Islands. This aim was also accomplished, the result being that a great immigration of Asiatic peoples occurred, and many subjects of Portugal were also introduced. During some years the Hawaiian kingdom developed under King Kalakaua's administration. The latter years of his reign were less peaceful than the earlier.



THE LATE DAVID KALAKAUA, KING OF HAWAII.



MAJOR-GENERAL NELSON A. MILES, U. S. A.

#### Major-General Miles.

Many readers of the RURAL will be pleased to look upon the noble countenance of Gen. Miles, which we reproduce upon this page from a recent photograph by Taher. The Western country has had many reasons to think well of Gen. Miles, and his recent achievement, the almost bloodless extinction of what it was feared would be one of the most formidable Indian uprisings of recent years, will add greatly to his credit as a soldier and as a man.

General Nelson A. Miles was born at Westminster, Mass., on the 8th of August, 1839. Receiving a common-school training, he became a clerk in a store, and was engaged in business when the Civil War began. He joined the 22d Massachusetts volunteers as a second lieutenant in September, 1861. He was promoted to a captaincy, and in May, 1862, was made Lieutenant-Colonel of the 61st New York Volunteers for gallantry on the field, and ordered to the front at Richmond. He played a conspicuous part all through the Civil War,

and at its close was brevet Major-General in the regular army and Major-General of Volunteers.

In 1875 he subjugated the Comanches and Kiowas in their memorable onthreak in the Staked Plains country, and in 1876 drove Sitting Bull and his warriors from Montana and quelled the rebellious Sioux. In the same year he captured the hostile Nez Percés, under Chief Joseph, and two years later subdued the Banacks in the National Park.

At the close of 1880 he received the rank of Brigadier-General, and for five years commanded the Department of the Columbia. In 1886, after a year's command of the Department of the Missouri, he relieved Crook in Arizona, and his campaign against the Apaches was crowned with the same success that attended his previous expeditions against the hostiles of the Northwest. After the thorough suppression of the troubles and the imprisonment of the leading chiefs, the General was appointed to the command of the Division of the Pacific, which position he retained after his promotion to be Major-General, April 5th, last year.



## HORTICULTURE.

### In Favor of the Redding Picholine Olive

EDITORS PRESS:—There probably never was a valuable fruit tree so much abused as has been our so-called Redding Picholine olive. It commenced when Mr. Lelong detected that the variety of Redding's introduction was not the French Picholine, and stated further: "The tops of the imported trees, supposed to be the Picholine, died down below the graft, and they put forth many shoots from which this little olive originated. It is no doubt a wild species." W. G. Klee gave then careful and exact measurements that looked quite disastrous for the Picholine, the pit of which was credited with a third of its whole weight. At that time only one pressing was known, that of L. A. Gould, who from 2500 pounds of olives made 24 gallons of oil. With regard to these facts, a third, one of our most prominent agriculturists, said to me two years ago: "I would not take a Picholine orchard if it was given to me." If our Coryphees spoke thus it was not to be wondered at when the *inferiores gentes* cried about the "Humbug olive," and sighed: "May a similar mistake to that committed in introducing the Picholine olive, be spared to California!"

A few years ago I claimed in the *RURAL* that the Picholine is a more equal and prolific bearer than the Mission, and ripens more than five weeks earlier than that one. But when it was said that the Picholine yields only half as much oil as any other variety, I had no facts to contradict this and consequently had to keep quiet. This year, however, I am able to give some facts.

On my own ranch, for the first time, I made a little oil from six-year-old trees; the berries had about the same measures given by Mr. Klee, and from 380 pounds I did not get much more than five gallons. Entirely different it was on another Auburn ranch, formerly owned by the above-mentioned L. A. Gould, and now by Mrs. E. Roberson. There the trees are ten years old and a mere glance at the berries shows that they are considerably larger than they are represented in any picture so far issued in California. I regret that I omitted weighing and measuring them; but laying them beside berries of the highly praised Rubra, one could hardly see the difference.

Mrs. Roberson gathered in 1890, 3800 pounds of Picholine olives which yielded 66 gallons of oil, or one gallon to 57 pounds, a better result than Elwood Cooper ever reported from Mission olives. One special pressing yielded even as much as one gallon to 49 pounds, which favorable result could not be accounted for. I, however, think that it is proved beyond doubt that the berries of the Picholine olive will grow larger when the trees grow larger, and that the larger berries yield a better percentage of oil. That favorable result probably was received from specially large trees.

Speaking now of the quality of the oil, nobody ever doubted that the Redding Picholine yielded a good oil. W. G. Klee says it produced oil of good quality; Mr. Lelong says it makes very good oil. We, here in Auburn, compared Mission and Picholine oil and claim that the latter has a more transparent greenish color, and is decidedly lighter and has not the fat, greasy taste of the Mission oil. From San Francisco dealers, Lebenbaum Bros., I heard that the greatest fault with California olive oil is, that it will not keep. Mr. Cooper, and especially Mr. Kimball, could tell a good deal about that. Those dealers of course referred to Mission oil, having no experience with Picholine. Two days before I met Mr. E. A. Pearson, a prominent lumberman of Sacramento, who told me that three or four years ago he got a bottle of oil from Mr. Gould, when that gentleman made his first oil; he used a part of the bottle and put the rest away to see how it would keep, and he assured me that now this oil looks as clear, smells as sweet and tastes as fine as ever.

One of the greatest advantages of the Picholine is its early and even ripening. It ripens in the first part of November, and how much value is in that, Mrs. Roberson experienced last year, her first year in the olive business. She commenced picking in November and gathered from one nine-year-old tree 163 pounds of olives. But in December an uncommonly heavy snow fell and brought in its snite myriads of robins, which have an equal relish for Picholine and other olives and got away with most of the crop. If, however, they will call again in another year, they will be disappointed not to find any Picholine left, but must be satisfied with the later-ripening varieties. Snow or rain alone will shake off and spoil many berries.

Still the Picholine is a small olive and therefore one might be afraid the gathering would cost considerably more. The berries here are gathered with a comb, and one man could pick this year (1890), which was an off year, 190 pounds, while Mr. Cooper says a man gathers 300 pounds of Mission per day. This raises the cost of a gallon of oil for the Picholine 12-13 cents, which I am confident will be considerably diminished when a tree bears like last year four or even more times as much.

Considering these facts, we all in Auburn who have any interest and experience in olives know that of the 16 varieties now bearing on the Roberson ranch, so far, none has proved

(though it may be) better than the Picholine; and consequently we, whenever and wherever we can, plant out the Redding Picholine olive, because, to sum up its advantages, it is a fast-growing olive tree of good shape, bears equally and prolifically, ripens as early or earlier than any other variety and yields much oil of a good and keeping quality. F. CLOSS.  
Quisiana, Auburn, Cal.

### The Kieffer Pear and Its Originator.

There is much difference of opinion in this State concerning the Kieffer pear, and really much difference in quality in the variety as grown in different parts of the State; still the following article, which Thomas Meehan of Philadelphia writes for the *London Gardeners' Chronicle*, will be read with much interest:

Peter Kieffer was the originator of the Kieffer pear. All over the world of gardening probably the Kieffer pear is known. Certainly in the United States, hundreds of thousands have been planted and hundreds of thousands of dollars realized from its sale. The owner of the tree, a near neighbor of mine, received probably but a few hundred, if that much. It seems that the great circle that has derived so much pleasure and profit from his work should at least know something of the man, who died on Nov. 7th, at his home in the suburbs of Philadelphia. He was a Frenchman, born in Alsace June 29, 1812. He arrived in New York December, 1834. Failing in employment there, he walked through snow two feet deep to Philadelphia, 100 miles, and obtained a situation as gardener to the famous agriculturist James Gowen, of Mount Alry, near here, where he married and finally bought a few acres and started a little market garden and small nursery.

All around Philadelphia are numerous rare trees and plants, the history of which no one knows, and the mystery is usually finally settled by the remark, "probably something introduced by Peter Kieffer." The Sand pear of Japan, so far as relates to the older trees growing in this section of America, if not in other parts, he certainly introduced. Numerous trees were fruiting here between 30 and 40 years ago—the fruit regarded as of no or little culinary value, but much esteemed for its delightful perfume. Mr. Kieffer raised seedlings from his tree, which were sold yearly from his little nursery. His tree grew close to a Bartlett (your Williams' Bon Chretien), and the branches of the two interlaced. Some slight difference in one seedling was noted, and it was preserved from sale. This proved what is, from the above facts, reasonably believed to be a true hybrid, the Kieffer pear. The fine red cheek, and some general appearance to the Flemish Beauty, has caused the statement to appear in our pomological works that it is a hybrid with the Flemish Beauty. Mr. K. grafted and sold a few here and there for five dollars each; but though he distributed among his few horticultural friends annually fruit that would make the most cold-blooded epicure leap with joy, no effort was made by any one to place it properly on the market. At length the great Centennial Exhibition came. Mr. Kieffer had some on exhibition; these excelled in size, beauty, flavor—everything, indeed, for which any pear could possibly be esteemed. The writer, who was secretary to the jury, can truly say that he remembers eating no pear like them. They had a medal and a strong report in their favor; and Mr. Wm. Parry, a well-known introducer of new fruits, made an arrangement with Mr. Kieffer for grafts. In this way the variety got regularly into commerce. It may be said that gardening is no longer an art here as it was in Mr. Kieffer's day. A fruit has to be "hardy" and "first-class," just as Nature gives it to you. You plant the tree, but, to a very great extent, it must forever after be able to take care of itself. Mr. Kieffer knew how to gather and how to cure his pears; year by year, since 1868, when the Kieffer pear first fruited, you could go to his house, and out of his cellar he would bring you fruits the like of which you might not find elsewhere. Few, if any, can get Kieffer pears as Kieffer had them, and the art has died with him. In our fruit lists it is simply classed as "valuable for market purposes," and the fruit chapters tell us it is "a very variable kind." Philadelphia is being fast covered with buildings over its vast area of 120 square miles. The original Kieffer pear tree is still standing in Mr. Kieffer's grounds, but it will probably not be many years before the march of improvement will bid it begone.

### California Figs.

W. C. Emmett, United States Consul at Smyrna, has furnished the following report concerning the cultivation of the fig at Smyrna. It will be read with interest by the fig-growers of California. He says:

In 1886 a party from California, apparently well posted, came here in the summer, went to the fig district and inspected the different varieties. He made his selection and marked the trees from which he desired cuttings. When the crop was gathered he obtained 30,000 female and 3000 cuttings from male trees and packed and shipped the same about the end of October. I have been informed that great success rewarded his enterprise. A box of figs grown and packed in California reached here this autumn (1889) and was inspected and universally praised by many dealers. In some instances it was impossible to persuade the

parties that said figs were grown outside the Aidin district; in fact some went so far as to designate the orchard. Those who grasped the full importance of this American enterprise predicted that Turkey's supremacy in the fig trade was waning. Some console themselves with the opinion that the American fig will not continue to be good. As the trees (grown from Smyrna cuttings) grow older, the fruit will have thick skins and become tough—in fact become native American figs. This deterioration of the fruit is very common here and has been well known for a long time. The transplanting of trees from their own orchards, even for a short distance, makes them give fruit of an entirely different flavor and nature. It has been suggested to me that if some grower will grow seedlings from the fruit of young trees grown from Smyrna cuttings, the chances of American fig-growers will be greatly enhanced and perhaps in time eclipse one of the staple articles of this country.

## POULTRY YARD.

### The Los Angeles Poultry Show.

EDITORS PRESS:—I send you a copy of the *Orange News*, giving the awards at the Los Angeles County Poultry Show, with perhaps a better account of it than I could write from the fact it is written up by Mr. Fullerton, the judge at the show, who is also a newspaper man and poultryman of long standing.

I will give you a few breeding-pen scores, that you may see that we had some good birds at the show:

Breed.	Owned by.	Score.
B. Leghorns, W. W. Thurston, L. A.	187½	
W. F. B. Spanish, R. Rowan, Pasadena.	186¾	
G. Wyandottes, S. Tyler, Pasadena.	183	
S. Wyandottes, S. Tyler, Pasadena.	182½	
W. Wyandottes, E. C. Clapp, Pasadena.	182	
R. C. B. Leghorns, W. H. Dwight, Pasadena.	179¾	
B. Pym. Rocks, C. T. Paul, L. A.	177	
Redcaps, E. C. Thurber, Alhambra.	177	
Houdans, Geo. Bacon, L. A.	176¾	
Black Minorcas, J. S. Myers, L. A.	169¾	
L. Brahmas, I. Keen, Pasadena.	168¾	

We indeed had a fine show of fine birds. We are not ashamed of it. E. C. CLAPP.  
Pasadena.

### Mr. Fullerton's Report.

From the report sent us we take the following notes of the representation of the different breeds:

The Wyandottes, silver, golden and white, were good classes, and the improvement over last year's exhibit was very marked. The Wyandotte is a good general-purpose fowl, producing eggs freely and dressing well for the market. It is an American variety and has many admirers.

The Plymouth Rock class was one of the strongest in the show, and prizes fell to excellent birds. The competition for first place in cockerels was close, and the result of scoring was watched with interest. This is a well-known general-purpose variety. A fair pen of White Plymouth Rocks was shown, but the barred seemed to have the call in public estimation.

The display of Light Brahmas was not very large, but there were several very finely marked specimens in competition. The weight class was particularly hard on this variety, lowering the scores so that the birds did not attain to the value their symmetry and markings seemed to warrant. The application of the weight class, which takes effect in the case of chickens after December 1st, was nearly fatal to the success of the whole exhibit in this class. The Dark Brahma class was represented by a beautiful cock and hen only. The hen was very fine in color and penciling, but being under weight had to be disqualified.

A well-built but rather unevenly colored cockerel had the honor of representing the Buff Cochins alone. Partridge Cochins and Langshans classes did not show up as well as we expected they would.

The display of Brown Leghorns was large and good. The first-prize cock, hen and cockerel were striking birds and were much admired. This variety is well bred here, and if an effort is made to secure greater size and better color in wings, no odds need be asked in strongest competition anywhere. The Whites made a fair display, but were not up to the Browns in quality. The first prize-cock bird was very fine in style, color and quality of feather, and had fine lober, but they were marred from fighting probably. Size can be given these with advantage also. The rose-combed Browns were fair. There were several Black Leghorns shown, good in comb, earlobes, etc., but deficiency in leg color was fatal to their success.

White-faced Black Spanish was a good class. The first-prize cockerel was excellent in shape and showed up well in face among a class that was very good in this particular.

The Polish class was represented by two little silver hens of good marking.

The Hamburg class was also weak in numbers, but the specimens shown were good. Two silver-spangled hens and a black hen and cockerel were all that appeared. The cockerel was a very stylish little fellow and would not fail to attract attention at any exhibition.

A breeding pen of Redcaps, a variety very popular in England and gaining in popu-

larity on this side of the pond on account of their great laying qualities, attracted a great deal of attention. Their immense rose combs seemed to catch the eye and their beautifully spangled plumage seemed to hold it.

The entry of black red Games was small, but of good quality.

There was a large and fine display of that new, popular and beautiful variety, Cornish Indian Games. They are not yet admitted to the American Standard, but are well worthy of a place in it. No variety on exhibition showed such distinctive form, and few greater beauty of plumage. We have never seen fowls show greater solidity of body and hardness of feather.

Pit Games were out in force. As the merits of this variety are judged by its ability to give and take punishment in battle, we do not understand why it should be placed in competition in the peaceful exhibition pen. The birds here shown were rather pretty, but their merits were not tested.

In the bantam classes, a pair of Duckwings were the only birds worthy of particular mention. A nice pen of Golden Sebrights disappeared before the judge had a chance to examine them.

The exhibit of turkeys, geese and ducks was small. The markings were generally good, but the weight penalty was very hard on them.

The pigeon display was very small. There was a nice display of pets, but a brooder, placed in one of the windows, filled with lively chicks about a week old, was one of the greatest drawing cards.

### Judging by Standard.

As many of the readers interested in poultry may not be aware of what is meant by judging by scoring, a brief explanation may be in place here. "The American Standard of Perfection," a book issued by the American Poultry Association, is the recognized authority in judging in the United States and Canada. It describes a perfect specimen of every variety of fowls and gives the value of each part in points, perfection being rated at 100 points—so much for beak, comb, wattler, etc., following down to the toes. Each part is considered separately, and such per centum for defects as may be apparent from the full value of a perfect bird deducted, and the same is marked upon a card, called the score-card, which corresponds with the scale of points as given in the Standard. Symmetry, or a harmony of the several parts and proportions, is first considered before the bird is handled, so that it may not be marred by exciting the subject or ruffling its plumage. Weight bears an important part in the larger breeds and is determined by the scales. Fowls under standard weights are punished at the rate of two points for each pound lacking; turkeys, geese and ducks, three points. In the smaller varieties, where smallness is desired, the rule is reversed, with difference in the penalty. The penalties for defects are added together, and when deducted from the value of the perfect specimen, give the value of the bird in points. Size in some of the medium varieties is decided by comparison. The Standard fixes a disqualifying weight, and when the specimen falls below or goes above this weight, as the case may be, it is said to be disqualified and is thrown out of competition. There are also several other defects in each variety which disqualify. The score-card is placed upon the coop of the specimen it represents, and when combed should plainly show the reason for the judge's award. When judging is done by comparison, the novice frequently cannot see why one specimen is preferred to another—and frequently experienced fanciers are in the same position. The score-card puts the judge's work on record and calls the exhibitor's attention to serious faults that he may before have thought trivial.

### Hens for Profit.

Madison Avenue writes for the *Pasadena Star* as follows: In the opinion of the writer, hens may be made to pay. Starting about two years ago—a novice in the business—with a dozen fowls for the purpose of securing a few fresh eggs for home use, to-day my flock numbers 24, including two roosters, and while my neighbors and friends are complaining very generally of their hens not laying scarcely any eggs, mine are averaging nearly ten a day right along. For curiosity, a record was kept for the month of November just passed, the product of which amounted to 280 eggs, and still the good work goes on. It is undoubtedly more profitable for a family to keep a few hens and take good care of them than to have a large number and allow them to shift for themselves. The matter of feed is of the greatest importance and after experimenting with the various kinds, I have settled down to the following combination as possessing a large amount of egg-producing elements, all of which the dealer thoroughly mixes when purchased, viz.: Rolled barley 25 pounds, cracked corn 20 pounds, bran 25 pounds, whole wheat 10 pounds, shorts 15 pounds, oilmeal 5 pounds, making 100 pounds in all. Of the above mixture I give my number of hens two quarts, wet up with scalding hot water in the morning, and toward night they get a full pint of wheat. They are shut up until middle of afternoon, when they have access to green grass, clover, etc., while before them in their corral is always a supply of cracked bone, fine gravel and fresh water. I would here state that for variety of fowl, I have a mixture of Wyandotte, Plymouth Rock and Light Brahma, and the eggs for size are not excelled.



## FLORIST AND GARDENER.

### Work of the State Floral Society.

[Report of EMORY E. SMITH, Secretary of the State Floral Society.]

The State Floral Society was organized two years and three months ago. Since that time the question has often been asked: "What has the society done to advance floriculture on the Pacific Coast?" To get at the facts, we will go back a little. This is the pioneer floral society on the Pacific Coast, and had, like other pioneer societies of this kind, to fight against factional and personal jealousy, narrow-minded policy, inexperience, indifference and other vicissitudes with which such ventures are always attended; but through all of this the society has stood unshaken and has steadily grown in numbers, interest and power, having drawn to itself more than 150 ladies and gentlemen, whose names stand high on California's roll of honor, and of whom any society could feel proud. No appeal for financial aid has been made either to the State or to the public, and, after having made all just settlements, there is now over \$200 in the treasury to the society's credit.

Four flower shows have been held and many thousands of people have gazed in admiration upon California's floral glory and wondered at the perfection of the gardener's skill. The public taste has been gradually molded under the fostering influence of these exhibitions, and the increasing superiority in quality of the floral exhibits has been remarkable. There are many more beautiful gardens in California than there ever were before; the public demands more perfect and choicer cut flowers, more beautiful shrubbery and a larger and choicer variety of blooming and ornamental plants. To the liberality of the press we owe much of the success attained. The leading papers have uniformly published full reports of the monthly meetings of the society and of the semi-annual flower shows. Through this way alone vast numbers of people have experienced an awakened interest in floriculture. Many strangers have visited our monthly meetings. The papers read at these monthly meetings have been of great merit and have been widely disseminated by the press, conveying accurate and valuable information to the remotest parts of the State.

Two communities have been encouraged to organize floral societies, which have held several successful exhibitions, and other communities are contemplating similar organizations. The members of the society have contributed both time and money to the National Plant Registration and Protection to Plantmen scheme, which bids fair to place horticulture in the United States on a firmer basis and higher plane than it can possibly otherwise attain. Correct floral statistics of California have been compiled and forwarded to the Census Bureau at Washington. One of our most beautiful native flowers has been added to the emblems of our State. Much other valuable work has been accomplished of which time forbids mention. There remains much for the California State Floral Society to accomplish, for floriculture is a progressive science and California is a great State, embracing many diversified climates. The society having passed the experimental point, it now devolves upon it to pursue its work in a systematic manner. The individual members should take a much greater interest in the work; each one should contribute something, either ideas or exhibits, or should influence others to contribute.

Perhaps the most important committee is that of Subjects and Papers. In the future this committee must do its work more perfectly and efficiently, and the interest of the society will suffer. It will require earnest work to make our society an exemplary and lasting success, and every member should, in the interest of floriculture, be willing to share the burden. All of the papers read should be published in pamphlet form at the end of the year. Advertisements could be secured sufficient to at least partially cover the expense. This would give those in search of practical knowledge a ready source from which to draw. An effort should be made to elevate the standard of our shows, thus encouraging the production of that which is truly meritorious. A systematic effort should be made to organize local floral societies throughout the State to work as auxiliaries to or independent of the State Society. The expense of sending a member or officer of the State Society to organize these auxiliaries at near-by points would not be great, and the floral people at more distant points would no doubt contribute part or all of the attending expense.

A Press Committee should be appointed, whose duty it should be to furnish the daily papers with accurate information regarding the proceedings of the society. A Labeling Committee should be appointed, whose duty it should be to see that all exhibits, at both monthly meetings and shows, are accurately and plainly labeled. The leading papers throughout the State should from time to time be informed of any important action taken by the society. A popular love for wild flowers should be in every possible way fostered. A register might be established in which could be entered, under the head of counties, all of the desirable varieties of flowers and ornamental plants which thrive in the various localities in the open air with or without irrigation. A

library should be started at once, the books to be loaned for limited periods to the members of the society. There might be suggested many other things that the society can do to foster love for floriculture in California, but sufficient has been said to give us food for reflection. Now, at the beginning of the New Year, let us resolve to be more zealous in the cause of our loved flowers, God's beautiful gift! Let us live nearer to the possibilities of nature and endeavor to woo the gaze and thought of the heedless world, for at least a time, from the sordid things of life to the pure, the good and the sweet, which is ever to be found at Flora's shrine!

### Fern Exhibit in Edinburgh.

[By LORENZO G. YATES, F. L. S., before the State Floral Society.]

In a communication to the *Northern Gardener*, Mr. J. Birkenhead writes of the ferns exhibited at the Royal Caledonian Society's Show:

Whatever may be thought about ferns in some parts of the kingdom, it is very evident that in Edinburgh they are highly esteemed. At the large show just held in the Waverly Market they formed a very conspicuous feature of the exhibition. "Oh, what lovely ferns! How beautiful the ferns are!" were the remarks heard in relation to them. One lady remarked: "Flowers last only a short time, but ferns are always pretty." The society offered prizes for 13 different classes of ferns, which brought out 53 lots in competition, comprising 253 plants, of which some 60 or 70 were not less than three feet and many were six feet, while some were eight feet or more in diameter.

Mr. P. Neill Fraser, who by the way received four first prizes, exhibited a remarkable plant of *Trichomanes trichodeum*, a mass of 18 inches across. The fronds of this species are cut so fine as to appear like hair, the whole presenting the appearance of a mass of green seaweed from every frond of which hung drops of moisture like innumerable diamonds. The Killarney fern (*Trichomanes radicans*) and *Hymenophyllum demissum* were in 12-inch pans. The next most remarkable fern by the same exhibitor was a *Polypodium subauriculatum* with fronds 9 feet in length and 15 or 16 inches wide, a perfect mass of foliage five feet through, hanging from a basket. In the same lot a *Microlepia hirta cristata* and *Polypodium aureum* eight feet across, with *Davallia dissecta* and *Polypodium glaucochrysum* five feet in diameter. In the class of adiantums, 24 of the plants exhibited were four feet or more across. There were also fine exhibits of British ferns. For the exhibition of 1891 \$6000 in prizes will be offered by the society, which will doubtless result in a still finer exhibition of plants and fruits.

## SHEEP AND WOOL.

### Hair of the Common Goat and Camel and the Tariff.

EDITORS PRESS:—The many tariff changes which have taken place recently, and the numerous interpretations of the same law by different authorities, have led to some very amusing and ridiculous decisions, especially on goat hair. For instance, the law of 1883 made common goat hair imported into this country free of duty under Section 1132 of the revised statute. Since that year the vexed question has been "see-sawing" first on one side, then on the other.

One recently appointed Secretary of the Treasury has decided that in his opinion all goat hair, regardless of its character, quality and the uses to which it is to be put, should pay a duty of 12 cents per pound. This is his interpretation of it as framed in the recent tariff bill.

The law intended to make a distinction between the hair on the common goat (as a late Secretary of the Treasury said, "those that feed on tin cans, brown paper and posted bills") and the hooded animals like the Angora, Vionna, Alpaca or Cashmere and Llama. There is as much difference between the above as between a "hooded horse and a burro."

Some grades of the common goat hair are only suitable for plastering purposes, and can be imported for 1½ pence or 3 cents a pound. With this duty of 12 cents added, you will see that the percentage is enormous. It is our opinion that the former tariff making common goat hair free, was wise and proper, as this particular class does not interfere with our wool interest, as it is only used for building purposes and very cheap blankets. We have no doubt that this decision will be reversed at an early day.

The recent tariff has also added camels hair to the list of dutiable articles entered in two classes; that from Russia being coarse, is placed under Class 3 with carpet wools, and that from China under Class 2 with combing wools.

Heretofore, camel-hair has been imported under the free list. We raise none except occasional specimens in our Zoological Gardens, yet the amount mixed with wool is from 15 to 25% and is used in manufacturing underwear and ladies' dresses good, and this percentage takes the place of so much wool, and it is wise and proper that both classes should pay tribute to Uncle Sam's revenue.

The feasibility of combining camels-hair with silk and velvet is more and more seen, and it is quite fashionable this season. Camels-hair by itself is slippery, and has not the harsh on its fiber that wool has, and authority says "it requires a percentage of the latter mixed with it in order to spin satisfactorily." We are sure that all these protections thrown around our American growers, must work to advantage for all concerned.

New York. WM. MACNAUGHTAN & SONS

## THE VETERINARIAN.

### Flukes in Cattle and Sheep.

EDITORS PRESS:—A disease has appeared among the dairy cows hereabout, \* \* \* The cows appear well and in good order, but lie down and become too weak to rise again, and after a few hours—sometimes a day or two—they die. Upon opening one of them recently, the gall was enlarged to nearly three times its proper size; the insides seemed to be in a high state of inflammation, and from the outside of the intestines the inclosed parasites were detached. The specimens were originally an inch long and resembled diminutive flatfish. They were the color of the animal's flesh, and each one was attached to it by a little sucker end. When detached from the intestine, they curled up and struggled. In its body could be distinctly seen globules of blood, and there were thousands of parasites in the animal. There is no doubt that they were the cause of death. Can you give any information that may lead to the prevention of the spread of this malignant disease?—READER, Marin county.

Response by Dr. Cooper Curtice, Veterinarian, Dept. of Agriculture.

EDITORS PRESS:—The writer quite clearly describes a disease and its cause which has hitherto attracted but little attention in this country. Previous notices of it have been confined to the statements of veterinarians, who have found the flukes—the cause—either in the liver or in the lungs. The animals in which the flukes have been found have been either Texan or Californian cattle.

The writer, an employe of the Bureau of Animal Industry, was, during the last summer, directed by the Secretary of Agriculture, Hon. J. M. Rusk, to investigate the diseases of cattle caused by animal parasites on the Pacific Coast and in Texas, and, while pursuing these duties, found the flukes in various localities, but not in sufficient force at that season to cause serious disease. He also learned that Dr. M. Francis of College Station, Texas, had investigated, during the previous winter, an outbreak of the disease in Southern Texas, in which the loss ran up into hundreds of cattle.

The disease is caused by a flat (solelike) worm, which is swallowed by the cattle when eating or drinking, is a small, round, microscopic body, usually attached to the grass in the vicinity of ponds, swales or marshy ranges. I could not say without investigation whether cattle grazing on the tule lands were more affected with the disease than others or not, but *a priori* should think that they would be.

The parasites are not usually all taken in at once but through days and weeks. After they reach the stomach, they usually find their way into the liver, and sometimes into the abdomen where your correspondent found them. When in the liver, their presence may be detected by cutting into the enlarged and thickened white gall-ducts or into the black, rotten-looking masses which they sometimes make there or in the enlarged gall-bladder.

The flukes which your correspondent found had invaded the animal from two to three months earlier, for it is said that it takes about this time for them to reach such a size. During this time, the suckers had been constantly removing blood from the cow and causing her to be more and more bloodless. In addition to the *anemia* thus produced, an intense inflammation of the lining membrane of the inside cavity of the cow was set up by the irritation they produced, which was really the cause of the animal's death. This peritonitis has, I believe, been noticed earlier in Europe but not in this country.

For the disease taken at the stage when your correspondent wrote, no medicinal remedy will serve to cure the patients. Tonics, as gentian, sulphate of iron and ginger, and the best possible nutritive feeding, may serve to carry the cattle through the disease if they are not too badly invaded. The remedial treatment should have been begun about three months earlier, as in August or September. This would consist in removing the cattle from the marsh lands to the drier pastures, especially if the season happens to be a wet one. I realize the difficulty of carrying out this precaution by the majority of cattlemen. It is given as a practical precaution for a few who can carry it out and a necessary precaution for all who would avoid the disease. Provide, if possible, drinking water from running water or from tanks or troughs. The disease usually lasts from five to six months, but this depends upon the removal from or continued exposure to the invading hosts.

The loss falls upon the producer, for not only is the disease fatal, but when not fatal it reduces the flesh and the milk of those affected. If the meat is sold, it is not dangerous to the consumer unless the animal is slaughtered when in an acute fever, but it is less nutritious and worth less per pound as an article of food.

If the cattle are kept in fenced lands, the land may be treated by scattering lime and

salt on it to kill the snails and fluke embryos that there may be on it. The snail is a bearer of the fluke embryos in its young stages. It must be borne in mind that cattle diseased by flukes constantly drop eggs with their manure and scatter them broadcast. It is not best, therefore, to pasture invaded cattle with the healthy ones at any time. The disease is not a contagious one in any sense the word is usually used. Cattle which do not feed or drink alongside the sick will not be diseased unless they feed in another lot under similar conditions.

In Europe, sheep-owners are seriously affected by the fluke disease. I have found less in this country than could be expected. If any of the flock-masters are interested in the disease, they are referred to the late publication of the Department of Agriculture on "The Animal Parasites of Sheep," which treats of this parasite and many others at length and gives quite full illustrations of each. This work is of use also to cattlemen, for the methods of prevention to be pursued in warding off the cattle parasites are those that are given for sheep. The doses of remedies prescribed are of course too small for cattle, but they can easily be enlarged. The book is distributed free by the Secretary of Agriculture.

COOPER CURTICE,  
Veterinarian, Dept. of Agr.  
Washington, D. C.

## THE FIELD.

### Esparecet in Colorado.

EDITORS PRESS:—Noticing inquiry about esparecet in your edition of Jan. 3d, we mail one of our catalogues to your address. On page 76 we give a little of our experience in Colorado, if of any interest to you.—BARTELDSE & CO., Seedsmen, Denver.

The following is the description of sainfoin or esparecet to which our correspondents allude. It seems more favorable than the plant has earned in this State—at least so far as reported up to this time:

This is a leguminous plant, with many stems from two to three feet long, straggling, tapering, smooth; leaves in pairs of pointed oblong leaflets, slightly hairy on the underside; flower stalks higher than the leaves, ending in a spike of crimson of variegated leaves, succeeded by flat, hard pods, toothed on the edges and prickly on the sides; roots perennial, and hard and woody; flowers in July. It belongs to the same family as the alfalfa, well known to all our Western people. It is adapted for light, chalky soil, sands, gravels and barren regions, where the rainfall is not plenty and irrigation not obtainable. It is not as long-lived a plant as alfalfa, but will last from 10 to 12 years, according to nature of the soil; by judicious top dressing of manure in the fall, the duration may be extended a few years. It is an excellent forage plant, and improves the quality and increases the quantity of milk when fed to milk cows. Sow 40 to 45 pounds per acre.

Report from the State Agricultural College, Ft. Collins, Colo.

Messrs. Barteldes & Co.:—The seed you sent us in the spring of 1889 was sown May 20th in two separate plats. One plat was sown two inches deep, the other about one-half inch, or merely covered; the former plat gave us a good stand, the plants soon taking possession of the soil, making a vigorous growth about 18 inches that season without irrigation, while the latter was almost a total failure. We would advise early and heavy seeding, and the firming of the soil after planting with a roller. It is our candid opinion that esparecet is the coming forage plant for our region, and should be given a thorough trial by every intelligent farmer or stockman.

Mr. Chas. T. Limberg, general manager of the Arkansas Valley Smelting Company of Leadville, says: Two years ago I sowed some esparecet above our ditches, and the same has done nicely.

### Mixing Phosphorus for Squirrels.

EDITORS PRESS:—A farmer of experience sends the following recipe for mixing phosphorus to poison squirrels. We have found it to be a very safe and sure means of ridding the farm of the above-mentioned pest:

First, put a gallon of wheat into a bake-pan and place it in the oven until well warmed through; then put a half a pint of syrup into an old milkpan and place it on the stove; now take half a stick of phosphorus and put into the syrup; stir constantly with an old spoon (being careful to keep the phosphorus under the syrup as much as possible to keep it from blazing). When all is dissolved, place it over a tub of boiling water, then stir in the warmed wheat. When it is well mixed, sift over it flour and mix until each kernel of wheat contained in the mass separates and each grain is thoroughly coated with the flour. After allowing it to cool, put into tight cans until needed for use.

Some farmers like to flavor the wheat with a few drops of oil of rhodium or anise seed. Twenty drops of either will be enough for this amount of poison.

Phosphorus, if mixed carefully according to directions given above, will keep good for a long time and may be put out in the heat of summer without danger of setting fire, as it will not blaze if a burning match be held to it.

FARMER.



## PATRONS OF HUSBANDRY.

In our Rural Press Official Grange Edition, issued every week, will be found additional matter from this and other jurisdictions, of interest and importance to Patrons. Any subscriber who wishes can change free to that edition.

### Wanamaker's Wickedness.

EDITORS PRESS:—In the issue of your paper under date of the 10th inst., I get a round slogging from one "Kate L. Squire."

Had you published the resolutions adopted at the recent meeting of the Executive Committee, as indicated in your foot-note, I might have been saved the troubles of this communication.

If I really thought this correspondent was a genuine woman, as indicated in the subscription, I should feel disposed to let the matter pass without comment; but there are some etiolatres and presumptive assertions in the communication that smack so strongly of

Beard and Ashline Omniscience

That I feel constrained to answer, as if John Smith were the oracle of so much wisdom.

Your correspondent starts out with the sweeping expression:

I hope the PRESS does not indorse the communication of J. V. Webster in your issue of Nov. 29th, wherein he extols the merits of Mr. Wanamaker's postal-telegraph scheme. It seems strange that a gentleman of his seeming clear-sightedness does not see that government control without government ownership will simply mean to subsidize the already bloated corporations.

As to indorsement, I presume the editors of the RURAL judge of a communication by its merits, without regard to the advice or protest of any one; so I am content on that score.

It may "seem strange" to the writer because I "do not see that government control without government ownership will simply mean to subsidize the already bloated corporations." In answer to this sage conclusion, I will simply say that if we were all omniscient, as your correspondent assumes to be, we would have no excuse for making further mistakes during our natural lives; but unfortunately

I Am Not of that Class.

Consequently, have to plod along in this dull, cold world, guided by the very few rays of light which are given me. If Secretary Wanamaker or myself ever conceived "the idea of our Government paying a rental upon a valuation of 80 millions of dollars for existing lines which could be replaced by government construction for from 20 to 25 millions," as suggested by K. L. S., we ought to be imprisoned, without the aid of judge or jury, for the remainder of our natural lives, and never be allowed to read anything but the learned disquisitions from the pen of your San Jose correspondent.

What Mr. Wanamaker did propose was, simply that the Government should lease, for a period not to exceed ten years, a sufficient number of existing telegraph lines to communicate with all the free delivery postoffices in the United States, which includes only towns of 3000 inhabitants or over. To do this would not take more than

Ten Per Cent of Existing Lines.

Morover, it will require an Act of Congress to grant this authority to Mr. Wanamaker, wherein safeguards and restrictions will manifestly be imposed, to the end that the interest of the Government may be guarded and protected.

I think time will prove the Wanamaker scheme to be thoroughly in the interests of the money power, and that it is an attempt to longer perpetuate the power which they are fearful will slip from their grasp; and if they can blind the people, they may well laugh in their sleeves at the docility of the farmer. I hope the Grange as a body will protest against such a measure, either that compromise or any half-way measures with the railroads.

Here is expressed a belief that Mr. Wanamaker is deceitful and dishonest in his advocacy of postal telegraphy; that the President of the United States, who has indorsed Mr. Wanamaker's proposition, is fraudulently endeavoring to sell out the honor and prosperity of the nation, that greedy corporations may glut their thirst for gold. The legislative branches of the nation are, by inference, placed under the same ban of contempt and suspicion. When this point is reached in the mind of any one, what amount of patriotism is left in the heart?

To distrust and censure those in high places who have never intentionally violated any trust imposed, is to

Weaken and Discourage Well-Doing.

We have manifestly a great efficiency of known thieves and robbers, without indiscriminately charging that every department of the Government is corrupt and unreliable.

As a finishing stroke to a bundle of incoherencies, K. L. S. says:

Senator Chas. A. Sumner's bill for postal telegraph is the only system that has been proposed in the interest of the people, and the monopolists put that out of sight as they would this (Wanamaker's) if it were not in their favor.

From this statement, in conjunction with the language previously quoted, it would appear that your San Jose correspondent has read neither Mr. Wanamaker's proposition nor the "Sumner bill," as introduced in the House of Representatives; for while Section 1 of said proposed Act declares in favor of authorizing the Postmaster-General to construct or cause to

be constructed such lines as the system proposed would require, this section is so modified by Section 14 that the material difference between the Wanamaker scheme and that of the Sumner bill is between the

Purchase and the Leasing of Existing Lines.

The latter portion of said section declares:

The Postmaster-General is hereby authorized and empowered to accept as a part of the postal telegraph of the people of the United States, any section of 50 miles or more along the lines of the routes designated by him, constructed subsequent to the passage and approval of this Act: *Provided*, that the material used in said construction, and the character of the work performed in the building and maintenance, shall be in conformity to the terms prescribed in Section 4 of this Act: And *provided* further, that the amount asked and paid for a perfect and complete title to such sections of telegraph construction shall not exceed the lowest price at which the Postmaster-General could procure material and construction of a precisely similar or equally excellent section of telegraph lines on this prescribed route of the postal telegraph.

As to the security and protection of the interests of the Government, they are in either case about equal. If the "bloated monopolies" could manipulate the leasing of the proposed lines under the Wanamaker plan, they would with equal facility manipulate and control the price to be paid for such lines, as provided in the Sumner bill. There is no escaping this conclusion. But I am not so uncharitable and suspicious as to believe that the whole machinery of the Government is disposed or could be induced to enter into a

Gigantic Scheme to Rob Itself!

If the lines should be bought as provided in the Sumner bill, they would first be appraised by trusted servants of the Government. If leased, as proposed by Mr. Wanamaker, the present actual valuation of the needed line would be first ascertained, and then a rental allowed which would yield the owners a fair rate of interest on that valuation. In the event of not being able to lease such lines by paying interest on a fair valuation thereof, the Congressional enactment would certainly provide for the purchase, condemnation or construction of the plants. Anything short of such provisions being incorporated in the bill would be unparliamentary and futile; hence the explicit points contained in the resolutions recently adopted by the Executive Committee of California State Grange, which I had the honor of introducing. [Published in the RURAL (Grange Edition) of Jan. 10th.—EDS.]

K. L. S.'s infatuation with the Sumner bill, which is stated to be "the only system that has been proposed in the interest of the people," has manifestly prevented a close

Examination of its Provisions.

In order to pay for the proposed purchase or construction of the lines, Sec. 10 of said bill provides "That the Secretary of the Treasury is authorized and instructed to issue bonds of the United States, in amounts not exceeding fifty dollars each, and not exceeding in the aggregate value twenty-five million dollars, redeemable in lawful money of the United States, within twenty years, and payable within thirty years from the day of issue, bearing interest at the rate of three per centum per annum, payable in lawful money of the United States."

Now it has been the cry of the country for the last ten years, and of the Alliance people ever since the organization had an existence, that our circulating medium

Is Altogether too Small;

That instead of twenty dollars per capita, we should have at least thirty-five. Bond-issuing does not increase this circulation, and further issue is against the protest of every taxpayer, and unnecessarily adds to the expenses of the Government to at least the amount of interest paid on such bonds. Why burden the people with this needless expenditure? Instead, why not issue legal-tender notes which will pay the cost of such telegraph lines, and at the same time increase our circulating medium to the extent of twenty-five or thirty millions of dollars, as proposed in the late Executive Committee resolutions?

Taking these great questions all together, and after a full and fair investigation of all the facts and circumstances connected therewith, I think it possible to convince K. L. S. that there may be something of fact or logical conclusion relating to the business and financial world yet unknown in San Jose.

J. V. WEBSTER.

SACRAMENTO COUNTY EXHIBIT. — Bro. E. Greer and A. A. Krull pleased us with a call on Tuesday. They had just completed their task of setting up the new Sacramento county exhibit at the State Board of Trade, and were returning home. The new exhibit is a fine one and a great credit to the county. Of its features we will speak at another time. It was provided by the County Supervisors, of whom Bro. Greer is one, and acted as the representative of the board in this enterprise. Bro. Krull, as Secretary of the County Pomona Grange, assisted in the work. Some of the material was donated by the Pomona Grange and the balance by other enterprising people. It has the reputation already of being the best county exhibit ever set up at the State Board of Trade.

PICNICS.—Bro. Shoemaker, W. M., Tulare Grange, writes that their last meeting was well attended. He is in favor of local as well as interstate picnics; thinks we can and should hold a State picnic.

## The Master's Desk.

E. W. DAVIS, W. M. S. G. OF CALIFORNIA.

Two and one-half dollars will get you a splendid Grange, Home and Farm paper for one year. Every thoughtful farmer needs just such a visitor once a week. Then send for the PACIFIC RURAL PRESS, and send the money without delay.

It is said of Ben Franklin, when he had attained his 21st birthday, that he organized the society known as the "Leather Apron Club." To this club no one was admitted who did not place his hand on his heart and solemnly say: "I love mankind; I think no man should be harmed because of his opinions; I love truth, will seek it diligently, and, when found, make it known to others."

Let duty be your twin brother; then pay strict attention to your brother's advice and you will not be far from safety at any time.

Strive to be prompt at your Grange. Don't you know how unpleasant it is to have some one come in late, and thus interrupt the proceedings? Let others be late, you be on time.

The farmers of California ask for practical legislation and reduced taxation in the interests of Agriculture, which is now so sorely depressed. Make the agricultural community thrive and prosper, and all lines of business will soon feel an impetus. Give us this aid now. Next year may be too late. Nourishment after death does no good. Nourishment in one's lifetime is of service.

In 1850 the farmers of the United States owned about 70 per cent of the wealth of the Republic. In 1890 they owned about 25 per cent of the wealth of the nation. If their mortgages were paid, they might now own about 20 per cent of the wealth. What's the cause? Has the farmer been indolent, or is there something wrong in another direction? How about legislation?

"The birds always pick the best cherries." There are enemies everywhere. Even the cherry has its enemy. The Grange, like the cherry tree, is useful and ornamental, and like the cherry tree, the Grange has an open enemy in the person of the politician. As the fruit grower, with gun in hand, watches the cherry tree, so the Patron, with vigilance, must watch the politician.

The Grange will celebrate its Silver Anniversary during the year 1891. We hope to see the Free Coinage Act passed before the year is much farther advanced. Perhaps that will assist the farmers to buy a suitable present, or perchance it will enable some on the farm to join the Grange.

Having been asked many times if a subordinate Grange could not select a man to full membership on the payment of one dollar, and a woman on the payment of fifty cents, it may be well to say, once again, that such action is not yet legal in California. The fee for membership still remains, for men, \$3; for women, \$1. Here is the law. Read carefully and cut out and paste it in your copy of the Constitution of the National Granges:

Article VII. Constitution National Grange.— "The minimum fee for membership in a subordinate Grange shall be, for men, three dollars, and for women one dollar for the four degrees."

To which this amendment is added:

"Provided, That State Granges shall have the power to reduce the fees within their respective jurisdictions to any sum not less than one dollar for men and fifty cents for women."

The State Grange of California has not yet reduced the fees; hence it is \$3 for men and \$1 for women.

Who is the man in the Legislature to take the lead in doing away with a whole lot of ornamental "boards and commissions"? Some Constitutional amendments may be required—submit them to the people. The people of this State will abolish several "boards" if they can have the opportunity. Legislators, do your constituents the favor of abolishing a score of useless, extravagant offices!

The Journal of Proceedings of the 24th Annual Session of the National Grange, Patrons of Husbandry, held at Atlanta, Ga., November, 1890, is at hand. While the writer had heard every word therein recorded when it was spoken, yet it affords new and pleasant thought and instruction to read the Journal. Each Grange in California will, in due time, receive a copy of the Proceedings. Keep the book. Let the Lecturer read from it from time to time. There is instruction on many pages, and it costs you nothing. Come to your Grange and purchase thought without money and without price.

The pupils of the Grange schools vary in age from 14 to 90 years. They are apt and industrious students. It is a pleasure to see how much some of them have learned in the Grange school during the past decade. Do you know that many of the best parliamentarians in the United States have been drilled and skilled in the school-room of the Grange? Do you know that some of the best speakers of the day are

scholars of the Grange class in oratory? If you are a farmer, or a farmer's wife, son, or daughter, and not a Patron of Husbandry, it seems to me you had better join the Grange, else you will get behind in the race for power; for knowledge is power, and the Grange is dispensing plenty of knowledge.

That cool, careful, honest man and brother, J. H. Brigham, the Worthy Master of the National Grange, has sent a most timely and proper letter under date of December 20, 1890. It is addressed to every Patron in the United States. He cautions us to keep out of partisan alliances, and to work for the Grange. Read the letter.

Farmers, as a class, are independent in action, honest of thought, fearless of public sentiment and opposed to all sorts of extravaganzas. The farmers of California must be on the alert, or the Legislature will (if it does as other Legislatures have done) soon give away more than the State can produce in the next two years. Fellow-farmers, have you seen the bills, now ready, to get at the public money? There is a host of them. They are coming "like the wolf on the fold." Tell your Assemblyman "No" on all these new-fangled "Commissions and Boards."

## Another Good One for Watsonville.

DEAR RURAL:—Well, I may as well tell it, because if I don't some one else will, you know, and it's so pleasant to get in the little family news just a little ahead of everybody. The day "arriv," and Watsonville Grange turned out till it seemed it must nearly all be there. After a busy morning session the Grange formed in line at 12:30 o'clock, headed by the Master, Sister Roache, Bro. Bowman and the old officers, the officers-elect being next, while the members brought up the rear. The long line filed down the stairs and forming in double columns on the street with colors flying and in full regalia marched in splendid order to the Watsonville House, where mine host Jaesen and his estimable wife (who by the way are Patrons in good standing) had prepared a dinner which—But all I can say is "Oh ye shades of Epicurus." All that was good and beautiful was on those eight long tables and nothing that was bad—not even "One Wine" among all that varied store. After a full hour spent in the anatomical dissection of chicken pie and cake, the march was again taken up for headquarters. The gates were now thrown open and everybody admitted to a public installation and one of the best programs it has ever been our good fortune to listen to.

Our Lecturer, Sister Bowman, always entertaining and companionable, far exceeded every former effort in this her last program.

The Grange orchestra did its best, and though lacking one of its principal members, Dr. Cargil, the Representative-elect of San Benito county, who is attending the session of the Legislature, enthused all with their lively music, while Money Musk, Virginia Rael and the Lancers were only quietly enjoyed, because the hall was too crowded to admit of livelier demonstrations.

Sister Roache installed the officers in her usual impressive manner, ably assisted by Bro. G. W. Sill. If any one doubted the spirit of loyalty and progression which ever animates this Grange, he should have heard the ringing speeches from men and women who practice what they preach. It would convince all that it would be as impossible to kill this great Grange principle as to wash away the rock of Gibraltar with a thunder-shower. These doth truth become eternal. A. P. R.

## Visits by Oregon's Master.

Bro. H. E. Hayes, W. M. of Oregon State Grange, will arrive in California about Jan. 29th, and probably speak in public on that date at Auburn (or for some Grange above there), as Bro. Still may announce in the local papers.

It is proposed that he speak at the following places also, provided the Granges interested will make the necessary arrangements and announce the same in their local papers, notifying the undersigned by mail or telegraph as early as possible:

In Sacramento, Saturday, Jan. 31st.

Stockton, Monday, Feb. 21.

In Contra Costa county, Tuesday, Feb. 23.

Sonoma county, Thursday, Feb. 25th, and

Friday, Feb. 6th.

Yuba City, Saturday, Feb. 7th.

Farmers should gather in from all adjacent places.

His services perhaps could be had at Newcastle, Roseville or Wheatland on Friday, Jan. 30th, and possibly at places in Colusa and other counties later, if applied for.

All farmers and others interested in the needed reforms of the day should unite in making his appointments known and give Bro. Hayes a rousing greeting. He is a capable and bold speaker and will no doubt have much of fresh interest to report from the various States he has recently visited, and also the National Grange.

Let us hear from the Master of each Grange that desires his visitation.

A. T. DEWEY,

S. F., Jan. 21, 1891. Sec. State Grange.

P. S.—We hope to give positive notices of all dates and places of speaking.—EDS.



## FARMERS' ALLIANCE.

SUBSCRIBERS wishing fuller information of the Alliance can have their names changed to the Grange Edition of the RURAL PRESS free, much to their advantage, this department being continued in the same.

## State and District Fairs.

What Must be Done to Improve Them—  
An F. A. and I. U. Opinion.

EDITORS PRESS:—I have been thinking that California fairs are not altogether what they should be. Too much racing, too many tugs, too many saloons, too much gambling, too much money given in prizes for racing and too little given for the products of the farm and household.

The attendance is made up too largely of the worst elements of society, and too small a proportion of the best elements of our population from both city and country take any interest, in fact, in our State and District fairs. How often are hoodlums, gamblers and thugs found not only running the fairs, but the towns and cities wherein the fairs are held as well.

The money gathered in taxes from the hard earnings of the people is appropriated by the State to aid these fairs, and what is the good resulting? How many California boys have tried the first vile cigarette, the first glass of beer or whisky and taken their first lessons in gambling at our California fairs. What shall the remedy be?

First, let the State provide, as is the case in some Eastern States, that no appropriation of money shall be paid to State or district fair managers till an affidavit of the president and secretary of the fair is filed with the Secretary of State showing by the oaths of these officers that during the continuance of their fair no intoxicating liquors were sold upon the fair grounds or on premises adjacent thereto.

This will remove the worst evil that clings around the fair grounds.

Then let farmers take more interest in the fairs and help make them what they should be. Many a business man of the town or city neglects his business and works vigorously and well to help make a creditable exhibition of the fair, and quite often with little help or encouragement from the farmer. If farmers would take hold and help, their assistance and advice would no doubt be gladly accepted, in most cases at least, and then the fair will become an educator for good instead of tending toward a school of vice and crime.

The saloon men work for their business; the horse jockeys do the same. The farmer follows the band-wagon with his hands in his pockets, and really I guess he is the one mostly to blame for the present condition of California fairs. No State in the Union can boast of a better or cleaner or purer or higher toned agricultural paper than California has in the RURAL PRESS. Why cannot our fairs be made the same kind of an educator?

Tell us about these things, Mr. Editor, and point the way to speedily remedy the existing evils. Yours for the right, "FRESNO."

[We have repeatedly referred our readers to the abuses heralded in the name of agriculture and are glad that "Fresno" has so well stated the necessity of something being done in self-defense of that name by farmers.—EDS.]

## A Cheering Letter from Bro. Rigdon.

Five New Alliances in San Benito County.

EDITORS PRESS:—I have been at work in San Benito county with the following result:

Saturday, Jan. 3d, organized at Tres Pinos. President, A. Jones; Sec'y, J. W. Lawson. Membership—9 males, 4 females.

Hollister, Jan. 6.—Pres., A. Cowden; Sec'y, A. Dnnlap. Membership—7 males, 5 females.

Union, Jan. 6.—Pres., R. M. Chappel; Sec'y, C. D. Barbrie. Membership—8 males, 4 females. (Hollister P. O.)

Attended San Jose County Alliance on the 7th, and San Benito County Alliance on the 8th; found both in a flourishing condition, with fast increasing membership.

Organized Mulberry Jan. 12.—Pres., E. Myle; Sec'y, Wm. E. Hasbrouck. Membership—10 males, 7 females.

Cienega, Jan. 13. (Hollister P. O.)—J. M. Thorp, Pres., J. S. Libby, Sec'y. Membership—7 males, 2 females.

This makes a total of ten sub-Alliances in San Benito county, with good prospects for several more in the near future.

I am now going to Alameda county to finish my labor. Bro. C. W. Pedlar, our State Secretary, is crowded with work and laboring under great difficulties; but I find him prompt and courteous at all times.

I visited San Ysidro Alliance last evening; had an enjoyable and profitable session. How could it be otherwise with the many zealous and hard-working brothers present?

I desire to congratulate the RURAL PRESS on its selection as the official organ of the Alliance, and consider the choice a wise one. Yours for the work, J. B. RIGDON.  
Gilroy, Jan. 18 1891.

SAN BENITO COUNTY.—A good report of the County Alliance comes from County Secretary A. T. Haines just too late for this week's issue. The next County Alliance is to be held at Patolnes, Saturday, April 4th.

## The Farmer in Congress.

[F. BENJAMIN in San Andreas Citizen.]

Never before in the history of this country has the farmer occupied so prominent a position with reference to industrial and political issues. The results of the recent elections have turned the eyes of legislators, business men and the public generally, on the "granger," and his condition, needs and demands are the topic of the day in the halls of Congress and on the streets of the commercial and political centers. Though the farmer, as a Congressman, does not cut a wide swath until the next (the 52d) Congress, the Farmers' Alliance movement is having effect on the legislation of the last session of this Congress, though few members of the present House are willing to admit it. The following measures of more or less importance to the agricultural interests of the country were left over from last session:

House Bill No. 53, introduced by Mr. Whitney of Michigan, authorizing the Secretary of Agriculture to furnish copies of monthly cereal crop reports to newspapers, signal offices and postmasters, to be printed and posted up conspicuously in signal stations and postoffices throughout the country. It is estimated that this service will cost \$40,000 per annum.

House Bill No. 137, introduced by Mr. Morrow of California, creating a division of silk culture in the Department of Agriculture, for the purpose of encouraging the culture of silk by establishing experimental silk-culture stations in the States having suitable climatic and hothouse conditions. Provision is made for the purchase by the Government of mulberry seeds and cuttings and silkworm eggs, for distribution to the farmers calling for such supplies.

House Bill 11,568, which is generally known as the Pure Lard Bill, and has been modeled from several lard bills introduced in the House. This bill provides that the word "lard" shall be understood to mean the product made exclusively from "the fresh fat of slaughtered swine." All other products made in imitation of lard, and not composed exclusively of hog fat, shall be known as "lard compound," and can be manufactured only after a license shall be obtained from the Commissioner of Internal Revenue. The applicant for license must state of what ingredients he proposes to make the compound lard, and if none of them are injurious to health, the license shall be issued upon payment of the following fees: \$96 for manufacturers and \$24 for retail dealers. All packages containing the imitation shall be plainly stamped "Compound Lard," and have the revenue stamp affixed. This bill passed the House Aug. 28, 1890, most of the Democrats voting against it. It has been reported to the Senate by Senator Paddock, without recommendation by the Senate Committee on Agriculture. The Southern planters interested in cotton-seed oil, and the pork-packers of the West, are arrayed against this measure and will probably be able to defeat it in the Senate.

Mr. Butterworth of Ohio introduced a bill to impose special taxes on dealers in options and futures in farm products. It is thought by many lawyers that such legislation will not be effective, but Mr. Butterworth thinks an effort should be made in the direction outlined in his bill.

Bill 9224, introduced by Mr. Featherston, of Arkansas, provides for Government loans to farmers, at two per cent interest, upon mortgages on the land. This bill embodies, in part, the ideas of the Grange and Farmers' Alliance. It is objected to by some on the ground that it fosters paternalism in the relations of the Government to the people, and others say it is impractical. It is safe to predict that no such measure will be adopted by this Congress.

In the Senate, the bill of Mr. Paddock, to provide for Government inspection, grading and storage of grain shipped or intended for shipment from one State to another, will probably not pass at this session. Senator Ingalls' similar measure will also be allowed to die, because of the pressure of other business. Senator Pierce's bill to create an agricultural commission to investigate the causes of the present depressed condition of the agricultural interests, was introduced in February, 1890. Since then agricultural interests have improved, and it is not likely that final action will be taken on this measure.

There are other bills affecting the farmers' interests that will be pushed at this session, but if the fight is prolonged over the Federal Elections bill, there will be no time to reach much of this proposed legislation. The Alliance element in the next Congress will have a great deal to work for, but it will be interesting to note this winter the efforts that will be made on both sides of the present Congress to keep solid with the farmers who have not joined the Alliance movement.

I will keep you advised this winter as to the inside workings of Congress with special reference to the farmers' interests.

## Yolo County Alliance.

EDITORS PRESS:—I am glad to find a page in the PRESS devoted to the Alliance. Our County Alliance will meet at Yolo the second Tuesday in January. Peter Roth is President and Frank Hulbert, Secretary.

C. W. HATCHER.

It is quite likely that the Fresno County Alliance will build a raisin-packing house.

## At the Northern Citrus Fair.

[Written for the RURAL PRESS by N. E. BOYD.]

We were happy in getting our first glimpse of the Northern Citrus Fair on the third evening of the exhibition, when everything was in order, and under the brilliancy of 200 incandescent lights.

The main hall of the pavilion is 160x72 feet, and the roof rises from a height of 14 feet at the sides to 30 feet at the ridgepole. The entrance is in the middle of the south side.

Passing through a vestibule ceiled with sprays of fragrant fir and cedar, from which hung festoons of oranges—like strings of golden beads from Broddingnag—between walls adorned with palm-leaves and a cornice of yellow squashes, we stepped within the door of the great pavilion, and lo! a gleaming vision of gold and greenery! enchanted palaces and dreams of fairy-land materialized! Right in front of us across the hall, like the mist-veiled sun, rising above a thicket of handsome plants, glowed the radiant yellow draperies of the speakers' stand. A little to the left stood a grand battlemented gateway, sheathed with high 9000 Butte County oranges—a gateway which the report of the Committee on Awards changed into that county's Arch of Triumph. Still farther to the left, over an intervening stack of oranges, showed the graceful lines of Oroville's triple-roofed pagoda; and behind that, at the far west end of the pavilion, the revolving vanes of Yuba County's huge Holland windmill kept flashing into view and vanishing again. To the right, most prominent near the central sunburst, shone Smartsville's Moorish Castle (a structure about 18x20 feet—big enough to live in), orange-clad, verdure-trimmed, with O. G. roof; next, the lofty model of the S. F. Chronicle building; beyond that, the rampart of Sutter's Fort, and then a mingling crowd of exhibits and designs—in all which the prevailing orange hue was more or less broken by lines and sprays of green.

The whole interior of the pavilion was decked elaborately and tastefully with evergreens, oranges, Toyon berries and little red apples. A mile of evergreen rope, it is said, was used in the wreaths, festoons and scroll-work. The effect of the apples in fancy lettering was remarkably pretty. The various novel and ingenious decorations—both of the hall at large and of many special exhibits—tempted one to write a good deal about them; yet we must be content to say that the adorning, though done generously, was not overdone, but marked throughout by grace and delicacy. This happy result was brought about through the united sentiment and action of a community where the prominent ladies of wealth and refinement made common cause, and the work of hundreds of deft and willing hands was given for days and nights as a freewill offering.

## Displays at Close Quarters.

As one coming straight into the hall took a few steps forward from the door and paused under the front of the small gallery, on the edge of the open space before the speaker's platform, he naturally spent some minutes in scanning the larger designs and taking a general impression of the scene. Then, looking about more narrowly, he found close at his left hand a sort of pyramid, which rose from a nearly triangular base, some 20 feet across, to the height of his head. This pyramid was covered with Butte county fruit, mostly oranges, the inner and broader face being composed wholly of D. N. Friesleben's Mediterranean Sweets, Malta Bloods and Washington Navels, with 200 or 300 of the largest and fairest of the last variety within a heart-shaped cordon of club mosses and labeled, "Heart of the Northern Citrus Belt, Oroville." (This took first premium in Class 3, i. e., the \$50 offered for best exhibit of W. N. oranges outside those competing with "not less than 2000.")

Here I. R. Ketchum showed a number of oranges from the famous old tree at Bidwell's Bar; E. O. Rollins, fine grape fruit; E. Tucker, Oroville, a lot of shaddockes and pumalos that won the first premium in Class 10. (Mr. Tucker avers that the juice of the pumalo makes excellent "lemonade.") There were also pomegranates and several varieties of pears from South Table Mountain, near Thermalito; nice-looking White Adriatic figs from Oroville; raisins from Mesilla Valley, and ripe olives, prunes, dried fruit, almonds and chest-nuts.

Next westward was a stand thickly strewn with ripe Mission olives from Judge John C. Gray's "Mt. Ida" grove, seven miles east of Oroville. A placard stated that

The trees were set out in March, 1886, being then one year old. This is the first crop. About 500 trees had olives on them, ranging from a pint to a gallon of berries to the tree. The trees are on red, gravelly foothill land and not irrigated. . . . all they need is cultivation.

A terraced shaft in the center of the stand held four tiers of bottles full of nice-looking oil. The judge has about 90 acres in olives and is much pleased with this year's earnest of their doing.

The varied collection of oranges displayed by Thos. B. Hutches of Central House was especially interesting from the fact that his orchard lies out in the open valley, a dozen miles south of Oroville, and eight miles west of the hills. Of the varieties he showed, "Asher's Best" and St. Michael ripen next after Navels; then

the Mediterranean Sweet and the Rio, some of which were still tinged with green. Mr. H. says that foothill redland oranges do get a higher color than those grown out in the valleys, but we did not understand him to admit that their flavor or sweetness exceeds the latter.

## Under the Oroville Pagoda.

A singularly tasty structure, which the committee wisely pronounced the "most artistic display," although large enough for a country railroad station, Mrs. A. F. Jones had a handsome wedge-shaped stand with seedling oranges on one side, Mediterranean Sweets the other, and pumalos along the ridge. (She also had other fruit, which was laid with the Thermalito exhibit and won premiums, as will be seen in the list of awards.) Mrs. S. S. Boynton had some beautiful Navel oranges, Sicily lemons and snapper Japanese persimmons (two varieties) which looked "just right to eat" and captured a 1st prize. E. B. Ward showed Homasassa and Joppa oranges, besides Malta Blood, Med. Sweets and elegant Washington Navels; Dr. R. Parker, very large pomegranates—best in the fair; and Jo. Gardella, who "shipped last month the first carload of oranges ever shipped by an individual grower in Northern California," exhibited oranges, pumalos and shaddockes.

## Palermo.

Beyond the pagoda and close to the north wall, beside heaps of Homosassa, Med. Sweet and Malta Blood, Palermo showed a church (with steeple 20 feet high) patterned after the actual house of worship in that colony, covered with 8500 oranges and spruce-trimmed. On its steps was J. C. Boyle's dozen of splendid Washington Navels which stood so near the head in Class 5.

## Sutter County Orchard Company.

Between Palermo and the stage the Sutter County Orchard Co. had a snug retreat, fern-thatched, and furnished with rustic seats. By one of its corners stood a tall Marysville banana tree, whose leaves reached to the roof, and around the hoth the company's superintendent, C. N. Tharsing, had arranged many glazed boxes of dried fruit and prunes, whose packing was a marvel of tasteful neatness, and took the first premiums in their respective classes. (This lot comprised three varieties of apricot, six of peach, four of plum, five of prune, one of nectarine, Black Tartarian cherries, Bartlett pears and Bellflower apples.) Close to the stage, at the foot of Butte's massive arch, was his display of nuts in 25 glass jars. There were California black and English walnuts, pecans and Paper-Shell and Languedoc almonds, with peanuts thrown in; and they, too, won first prize (Class 22). The goodly company of flowering and foliage plants which graced the floor directly in front of the speakers and musicians, was also brought in by Manager Tharsing.

## Thermalito.

West of Palermo's church, on a broad slope facing the spectator and marked at either end by citrus, olive and other growing nursery stock in boxes, lay the great exhibit of 2300 fine Washington Navels, two deep, from the orchard of the Oroville Citrus Association at Thermalito—easy winner of the \$200 prize in Class 2. The pleasing effect was enhanced by small seedling orange-trees, say 50 in number, which were set at every corner between the boxes, and lifted their leafy tips a foot or more above the warm-hued expanse.

Two of the choicest boxes in this peerless output were to be forwarded, after the close of the fair, to President Harrison and Governor Markham, "with compliments of Thermalito Colony Co."

In addition to these Washington Navels, the above-named association displayed boxes of fine-looking Malta Blood, St. Michael, Med. Sweet, Homosassa and Parson Brown oranges, with several specimens of other less common varieties and a box of sweet limes.

Alongside of them S. J. Brutton, Supt of the county hospital, showed sundry boxes of large, finely colored Wash. Navels and other oranges and good-looking lemons, raised on a knoll near the colony.

All the north wall behind and above Thermalito's output was clad in fern-fronds and palm-leaves, dotted here and there with orange-clusters, and amid the verdure there was depicted an enormous State Seal, California's cap, staff and shield being made of oranges, while the bear at her feet and the "Eureka" overhead were of black figs.

## Yuba's Windmill.

At the west end of the hall Yuba county had a very taking design—an old-fashioned Holland windmill, with four vanes which almost grazed the ceiling as they turned around. It was built in the middle of an inclosure about 30x20 feet, begirt with a rustic fence, filled knee-high with earth and set with a number of semi-tropical plants. The base of the mill was covered with evergreen and a sprinkling of red berries; its tapering tower was shingled with oranges, paneled with lemons and pierced with windows whose sashes were red with apples; its dome was slated with purple figs, and its sails wrought of string peanuts and seamed with raisins. Beside it a spring of water seemed gushing from a pile of rocks, but the secret of whirling vanes and babbling stream was a little engine and pump hidden within the tower!

(To be Continued.)





## Reflections.

[Written for the RURAL PRESS by ISABEL DARLING (LUTA).]

Idly toward the western window  
Turned my scarcely seeing eyes,  
Where, in dull and sullen languor,  
Slow clouds sulked across the skies.

Midway of the scenic curtain,  
Stood, or hung, dark pictured forms,  
Like the shrunken ghosts of forests  
That had perished in the storms.

Doubled showed the shadowy vision,  
One above and one below,  
And around a glassy brightness  
Pale as moonlight over snow.

Then I thought of signs in heaven,  
Prophecies of coming change;  
Thought of armies, swords and crosses  
Seen by those who seek the strange.

While I gazed the mystic wonder,  
At the opening of a door,  
Flashed and quivered at the closing,  
Settled, doubled, as before.

On the parted cloud of evening,  
No—that sign of teary rain  
Was a background for the picture,  
Made a mirror of the pane,

Where a friendly grove reflected.  
Multiplied by break and line,  
All its shaggy outlines softened,  
Formed the ghostly, mystic sign.

Such, I thought, are often visions  
Spread before celestial skies,  
But reflections on the window,  
Earthly scenes unrecognized,

Mirrored on the minds around us,  
Held by sullen, earthly air,  
Doubled as the cares are doubled,  
Yet more dear for being there.

Though eternal space invite us  
Far beyond the shifting cloud,  
Though a grand eternal always  
Pause not by the bier and shroud;

Still we love the smaller distance,  
Love to count the hours that pass,  
Love to puzzle o'er the pictures  
Thrown by mirrors on the glass.

## Daniel Dean.

Mr. Benjamin Dean, on the morning of a day in June, 1887, sat down to the breakfast table with a portentious frown upon his brow.

"What has become of the boys, Mary?" he exclaimed, "that they are not at the table at this hour? Plotting and planning more mischief, I'll be bound. I saw them at daybreak out in the wood shed, grumbling and shaking their heads. I suppose Daniel did not like the whipping he got last night, but he deserved it, the little hound."

"Oh, father, don't call him names. He is a good boy."

But the loving mother was silenced with: "Your softness has pretty near spoiled that boy; but as often as you put nonsense into his head, I've got to heat it out; that's all. You think he's perfect, but I know better—'spare the rod, spoil the child.' He's my own flesh and blood and I have the right, thank heaven, to do it."

"I suppose so," said the heart broken mother, the tears running down her cheeks; "but you never punish Harold so severely, and he, too, such a lazy, dreamy boy, that neither likes to study nor work."

"Ah, Mary; that is a horse of another color. Didn't we pick Harold up a mere baby, when the Sam Price went to pieces on the rocks? True, we brought him up as our own, but he may have parents somewhere, and anyhow, in justice, and you know justice, Mrs. Dean, is my hobby, anyhow, I've not the right to give him the lesson I gave Dan last night, no matter what he does."

"What has Daniel done to anger you, father?"

"Stolen money from me! A good, round sum, too, if you, the mother that bore him, must know. I missed it, yesterday."

"No, no, father; I never will believe it!" said the weeping mother. "I know my boy better than that. I know his principles. He would rather die than do such a thing!"

"But I caught him in the barn, counting it over, dollar by dollar. As it happened, he did not see me when I entered. After he had counted it over carefully, he placed it in the crown of his hat, under the lining, putting a pin in to keep it safe."

Mrs. Dean arose, wiped away the tears, and going to the dining-room door, called Moses, the man-of-all-work. She was stern, for the honor of her boy was at stake—her darling, her only child.

"Moses, call the boys to breakfast; tell them to come without delay."

"I can't find 'em nowhere, missus; I been a-lookin' for 'em all the mornin' upstairs, down cellar and out in the barn." And Moses trem-

bled like a leaf, and his face, black as it was, had an ashen hue. "I was goin' to look in the well, but I so scared I darsent."

"What is the matter with you, Moses? What has frightened you so?" said Mrs. Dean.

"I heard master scolding in the dining-room about Master Daniel, and I thought maybe he was a-goin to trounce him ag'in, marm, and I'd rather he'd trounce me instead, if he would. I love that boy so. He's been awful good to old Mose, Master Dan has." And the negro's lips trembled with emotion.

"But, Moses, you must find them, or their father will be very angry. Take the dinner-horn and go out into the woods and call them. If they don't answer, take Rover and go down to the village and come back across Brown's pasture, past the old mill, where they often play ball; and mind, Moses, don't come home without them."

Moses prepared to obey his mistress, literally. He went up to his little room in the loft, gathered his few clothes together, tied them in a bundle, crept downstairs softly, and made his way to the woods, and thence to the village. He took Rover along but sent him home again with his master's letters, after he had been to the post-office.

Moses had told his mistress a lie to shield the boys. Well he knew they were many miles from home by this time, he having put them into a farmer's wagon at six o'clock that morning, on their way to the next town, thence to go to a neighboring city.

In vain did the breakfast wait! In vain did the angry father scold and the mother weep. The boys were gone; the Dean household desolate. Even the familiar black face of old Mose was seen no more, he having gone to seek his fortune elsewhere.

One week after that eventful morning, two letters came to Mrs. Dean. The first was from Daniel, and the fond mother kissed it and covered the boyish sentences with tears. It ran thus:

DEAR MOTHER: Forgive me for running away. You believe in me, but father does not; so I thought, as I am fourteen years old, I would come to the city and get a place in a store. Harold would not let me come alone; so we put the money we have earned in doing chores together, and here we are. Believe me when I say I did not take father's money. But I know who did. It was not Harold. You will find it in the upper drawer of my bureau, where I put it for safe-keeping after the penitent thief had placed it in my hands. Harold and I expect to go to work to-morrow. I will write soon again. Your loving son, DANIEL DEAN.

The other letter Mrs. Dean opened indifferently, but soon her attention was arrested; it ran thus:

MISSSES DENE: I wonder the good Lord didn't send lightnin' to strike this nigger when he gone and stole money from old Master Dene, I never stole any befo'. Sometimes, when I seen a little lonesome chicken goin' my way, I took it up and put it under my coat to keep it warm, but never took any money befo', and I'll never do it any mo'. God bless you, Misses Dene; you've been good to old Mose and so has the master. Master Dan't talked to me till he made the tears run out of my old eyes. He did mo' than the parson could.

Good-by. MOSES.

Mr. Dean went post-haste to the city and hunted up his boys. They gladly went home with him. Scarcely a word was spoken on the journey; but ever after the father's justice was tempered with mercy.—Mrs. Kidder in N. Y. Ledger.

## Personal Equations.

A Machine that Corrects Errors that Humanity Can't Help But Make.

The St. Paul Pioneer-Press states that Carleton College Observatory has just secured a curious instrument invented by a scientist at Washington and called a "personal equation machine."

The object of the instrument is to harmonize the observations of different persons who are working together, at different times or at the same time. Astronomers well know that no two persons see exactly alike, by which is meant, for example, no two persons will say that a star passes a wire in a telescope at exactly the same instant. One will record its apparent passage slow on true time, while another will almost uniformly put its time fast. Observe unconsciously form a habit of seeing objects fast or slow on true time, and the better the observers are the more steady this error is as compared with true time. This error the astronomer calls the personal equation of the observer. In amount the personal equation varies from 0.02 of a second of time to something more than half a second for different observers, either fast or slow on true time. Such errors as these cannot be tolerated at all in astronomical observations for fundamental or original work of a nice kind, but must be in some way eliminated before final reduction can be attempted.

To accomplish this, in one way, an ingenious machine has been constructed which sets in motion an artificial star, quite like the appearance of a real star in the telescope. As this artificial star passes wires in the machine, the observer records his observations, and the instrument automatically records the exact time of the real passage of the star over the same wires. Now both records are made by the electric current, and consequently are perfectly true. These records are taken automatically in ink or by an instrument called a chronometer, and hence their differences can be measured with the utmost accuracy, and in this way the errors of

the observer on true time are satisfactorily known.

The machine is in use every night that observers work either together or singly, so that changes in individual personal equations may be detected, as well as the differences that may exist between observers. The instrument, therefore, furnishes an unvarying standard for accurate observation.

## California Odds and Ends.

[Written for the RURAL PRESS by LAURA J. DARIN.]

It pleases me to see our PACIFIC RURAL PRESS quoted by the New York Tribune and other newspapers. I like to see it bowed to as equal to any in the land and watch it stepping out with other California publications claiming a good place in the march of progress, and not only claiming it, but keeping it. I am proud of them when they make a good, honest, straight mark in the world, because they are a part of our State and I like to see some real good come out of California as well as real Western grit and gold.

When I first came to this State, I had no idea I should ever care for anything published within its borders; for, like many others, I had left my heart in the East and thought it had the best of all literature.

Thousands of impatient pioneers waited with eager longing for "Steamer Day" with its mail-bags plethora with Eastern magazines and weeklies. Harper, Godey, Arthur, Peterson and Frank Leslie profited more than a little from the lonesome Californian's pangs in those times. But how far back in the history of our State those dear old "Steamer Days" seem to lie now that the shriek of engines and thrill of overland trains echo along the Rocky mountains and the Sierras. What changes have occurred since the "golden spike" was driven. Our thoughts are no longer concentrated on two days in the month, but any day letters from our old-home friends may be dropped at our door.

A new generation has grown up that knows no other home but California. "Native Sons and Daughters of the Golden West" are beginning to take an active interest in the advancement of their Golden State. Be in earnest, good sons and daughters, make yourselves as near perfect in thought and habit, speech and work as you can be, and so much more perfect will your State be. You don't want the sons and daughters of the Eastern States to look down upon you as wanting in refinement. The truest ladies do not make a habit of chewing gum or using slang. The truest gentlemen are not addicted to the use of tobacco, cigarettes, whisky or wine. And no one should be afraid to work.

God has given you a beautiful State, wonderful in products, scenery and climate. Just stop to think of it and be worthy of it. Where in this world will you find its equal? From the plains, where the first settlers thought nothing would grow, for years has come wheat for the millions. Foothills, mountains and valleys give us fruit for the millions. Study the "tricks and the manners" of its growing; look into the secrets of nature, and may your days be long in the land your Lord God giveth you."

All the air is full of a glad New Year. Quail call to each other from the underbrush. Blue-jays scold in the treetops, California canaries and bluebirds sing in the sunshine, roses, verbenas, geraniums, sweet elysium and chrysanthemums blossom in our gardens, and grain is showing green in our fields this 10th day of January, 1891.

Oh, what a State is this, my countrymen! When the Eastern idler is getting its full growth, the trees bending under snow wreaths, the roads ready for the snow-plows and mercury in the "Valley of Despond" way down below zero, here the pruner with his shears is the biggest bird in our fruit trees; thinking of future crops, he nips and slashes with judicious care, and his whistle is heard in the land. The grapes have not long been gathered from our vines, yet they are mustering up their strength for a new effort. The soil of this State rested and gathered richness for so many years, there is no repressing it now. If it is not guided into producing its right royal fruits it will send up something not royal. In this part of the country, if cleared land is left to itself, in a few years it will be covered with a dense growth of lilac; so you see California is really irrepressible, and should be a guide for the public good. How many hands are ready for the pick and plow and pruning shears?

Soquel.

[We are glad to welcome our tried and true contributor back to her old seat in the Home Circle.—EDS. PRESS.]

SOME people are too literal for any use. A young countryman gave a graphic description of a narrow escape that he had recently from an enraged bull. "I seized him by the tail!" he exclaimed, "an' there I was. I was afraid to hold on an' I darsent let go." "Between the horns of a dilemma, as it were," ventured a young lady, very much interested. "No, ma'am," replied the countryman; "I wasn't between the horns at all, an' besides he wasn't a dilemma, he was a Jersey."

"Is Mr. ROBINSON a single man?" "No; he has a twin brother."

## "Geoffrey Chaucer and his Times."

[A Lecture by MRS. M. H. FIELD.]

The father of English poetry lived before the days of the printing press, and not a line of his own handwriting has survived the wreck of time. We are, first, indebted to the copyists of the fifteenth century, who diligently and lovingly wrote and re-wrote every valuable manuscript; and, secondly, to William Caxton, who, having worn out his pen and dimmed his eyes in the tedious profession of copying, went across the sea to Flanders, learned to print, and returned in 1496 with the printing press.

We owe to Caxton the first printed copy of the poems of the great hard whom all subsequent English writing poets hold in reverence as their master.

Tennyson says:

Dan Chaucer, the first warbler whose sweet breath Preluded those melodious bursts that fill The spacious times of great Elizabeth With sounds that echo still.

Let us turn our lenses backward and look down the long vista of five hundred years, at the gray dawn of English literature, and scan the simple but grand figure of the old poet.

Chaucer, whose youth was spent in London, was familiar with all the pageantry of the court of Edward III., in the middle of the fifteenth century, for his family, if not of noble birth, was closely connected with the court. This was a time of discontent and uprising among the people, when the Commons were demanding larger liberty, and in Parliament were ceded stronger powers, even that of impeaching royalty; so the boy caught breathes of liberty in his brave youth, and grew up with no blind reverence for church or king.

These were the days of Wyckliffe and his translation of the Bible, so our author had this grand compendium of literature, the English Bible, to study the broadening influences of its principles to release him from ecclesiastical bondage, and its wealth of philological treasure to help him as a founder and former of the English language. Small and meager was the list of English books. "The Vision of Piers' Ploughman," that quaint old poem without rhyme or meter, was most popular, aside from the Scriptures, and we can well believe that young Chaucer found it a congenial comrade.

"Froissart's Chronicles," a "Boke of Courtesey" and one of travels, with oodes of hymns, ballads and political songs, must have completed the list. But there were numerous translations from the Latin, Romance (or Roman-derived) and French, which latter was the favorite tongue of the court and better classes. Though the Norman had banished the Saxon from polite society, it was still spoken in the lowly homes of the common people—was dear to the loyal Anglo-Saxon heart and needed but the courageous forming hand, the wisely discriminating choice, and grammatical, philological and poetical skill of Chaucer to decide its fate and bid it become the strong and enduring sub-stratum of the English tongue. The time had come. The people demanded religious teaching in their own language; Saxon and Norman, despite the rancorous hatred which followed the oppression of the early days of conquest, had begun to blend and assimilate.

"There was almost a Babylonish confusion of speech," says Marsh, "but from this Chaucer did more to rescue his native tongue than any other man of his generation."

"Chaucer did not introduce words, but of those already received he invested the better portion with the rights of citizenship and stamped them with the mint-mark of English coinage." He appeared at just the time when such a prince of language was needed, and the two great dialects, English and French, were ready for his use, and nobly did he exercise his privilege. "In the hands of Chaucer," says Marsh, "the English language advanced at one bound to that superiority which it has ever since maintained as a medium for the expression of poetical imagery and thought."

Space forbids but the merest mention of the lecturer's pleasing description of the common life and manners of the day in which Chaucer lived. She spoke of the vast, motley and barbarous horde, from whom our venerable ancestors descended, exclaiming: "How one's best blue blood turns a common dull red as we gaze at them!" described the morning call, with their "facilities for travel, which were doubtless confined to their very substantial and oposable bare feet." The homes of the humble and wealthy were passed in review—"the serf or villen at his plow," whose deep blue eyes held sullen fire as he sang:

"When Adam delved and Eve span,  
Who was then the gentleman?"

But turning from the olden customs of five hundred years ago, the lecturer quoted largely from Chaucer's poems, and finely illustrated his different styles.

"Chaucer was at one time in the king's army, once a prisoner of the French, and after that a member of the royal household. His literary genius was early recognized, and he was a man of affairs, a courtier, a soldier and a traveler. \* \* \* Hallam classes together Petrarch, Dante and Chaucer as the great Triumvirate of Poets who flourished in the Dark Ages. His later years were spent in retirement and elegant leisure in a fine home given him by the king. \* \* \* He loved nature and was a close observer of the beautiful, and yet he was a student and lover of hu-



man nature. \* \* \* The old poet seems to have had firm faith in the goodness of God, the immortality of the soul and the joys of heaven. Let us hope that he taught others out of his own experience, and that he found Life's latest sands to be sands of gold. He died in 1400, and was interred in Westminster Abbey, the first of the long line of poets whose ashes lie in this most fitting resting-place."

### An Interesting "Find."

[Written for the RURAL PRESS by MAUDE S. PEASLEE of California.]

A correspondent in the *Journalist* of Nov. 29th contributes a most interesting item on the oldest printing press in America—perhaps the most ancient one in existence. If it had the power of speech, what a tale of interest the old relic could relate! Stored away in the attic of the capitol at Montpelier, Vermont, it has lain many years in the dust.

The freeman's oath, used in the State of Massachusetts, was first printed on it. This was the first thing ever printed in this country.

The noted Bay Psalm-book, the first book in the land, was also printed on this press. It was used in Massachusetts, Connecticut and Vermont for printing laws, great quantities of paper money, and other things of much historical value. Since 1781 it has seen much of Vermont's most important legal work. It must have been quite beautiful in its best days, for it is made of English oak and shows signs of having been highly polished. It has been broken and repaired in a good many places. How fallen from its lofty estate was it when its last use was to print a cheap novel!

After passing through the hands of the State Press Association, it became the property of the State Historical Society. Although for a time its existence was forgotten, the society has brought it forth and set up the interesting relic in the great hall, where it may be seen by all curiosity lovers. It should have a place in the World's Fair at Chicago.

I am reminded of the boast made by the Cherokee Indians of their early work on newspapers. It was a great surprise to me to be told that they claim their ancestors printed a newspaper in 1492, when Columbus landed in America. Of course they "printed" it in rude symbols or characters such as even the more civilized Indians used, but it seems it was really a sort of bulletin of local affairs as they occurred.

Viewed in this light, it might be called a newspaper, I suppose, although no paper was used, and it was certainly very primitive. However, the idea was the same and the spirit and energy must have been present. Think of a newspaper on bark!

### Chaff.

HE (rapturously)—I love the very ground which is trod by your fairy feet. She (innocently)—Are you aware that this land does not belong to my father?

KIND OLD LADY.—And so you are blind, my poor man. Poor Man.—Yesum. I was born blind. Kind Old Lady (shocked).—Born blind! Is it possible? How you must feel the loss of your eyesight.

NOTHING TOO GOOD FOR THE CHERUB.—Mrs. Belgrave (on the Bermuda boat).—Are you one of the stewards? Bill Rolling.—No, marm. I'm cap'n o' th' top. Mrs. Belgrave.—How nice. Bring it and spin it for little Chauncey, won't you? He's almost bored to death.

A NOM DE PLUME.—"Ostrich."

A THANKSGIVING PARADOX.—"It's very strange," observed the Boston woman in Washington Market, "that undressed turkeys are invariably clothed with a pennate growth, while the dressed are absolutely nude."

PROUD FATHER (showing off his boy before company).—My son, which would you rather be, Shakespeare or Edison? Little Son (after meditation).—I'd rather be Edison. "Why?" "Cause he ain't dead."

HE (lightly rude).—I called because I thought you were out. She (sweetly).—Well, do you know I thought I was out, too. The maid must have mistaken you for some one else.

ELEPHANT'S HIDE.—The tanning of elephant's hide is comparatively a new industry. The method employed is practically the same as in the tanning of cow hides, except that a stronger combination of the tannic ingredients is required, and a greater length of time, about six months, is necessary to perform the work. When the hide is taken out of the vat, it is about 1½ inches thick. Articles made of elephant's hide are expensive luxuries. A small pocket-book made of elephant leather, without any silver or gold ornamentation, costs about \$40. A small satchel made of the same leather costs anywhere from \$300 to \$400. Cigar cases, card cases and similar articles vary from \$52 to \$100. Floor rugs are also made out of the leather. In finishing the hide no attempt is made to glaze or polish it. Everything is done to preserve its natural color and appearance. It is a very durable leather, several years' wear having but little effect on it. The scarcity of elephants and the great expense entailed in the tanning of their hides precludes the possibility of elephant leather ever becoming a thing of popular and general use.

## YOUNG FOLKS' COLUMN.

### Five Little Chickens.

Said the first little chicken,  
With a queer little squirm,  
"Oh, I wish I could find  
A fat little worm!"

Said the next little chicken,  
With an odd little shrug,  
"Oh, I wish I could find  
A fat little bug!"

Said the third little chicken,  
With a sharp little squeal,  
"Oh, I wish I could find  
Some nice yellow meal!"

Said the fourth little chicken,  
With a small sigh of grief,  
"Oh, I wish I could find  
A green little leaf!"

Said the fifth little chicken,  
With a faint little moan,  
"Oh, I wish I could find  
A wee gravel stone!"

"Now, see here," said the mother,  
From the green garden patch,  
"If you want any breakfast,  
You just come and scratch!"

### A Rainy Day and What Came of It.

[Written for the RURAL PRESS by MARTHA T. TYLER.]

"What a forlorn day!" said Allie Catherwood as she gazed out of the window of the library into the street below.

Forlorn indeed! The rain fell in torrents, the gutters were all rivers, and the few individuals that ventured to brave the weather were quite at the mercy of the storm, as it was impossible to use an umbrella in so fierce a wind. Most of the wayfarers would, no doubt, have envied Allie her beautiful home and comfortable fireside and have been contented to spend a day in so pleasant a room as the library, but the little girl thought it a great hardship to be detained indoors on this particular afternoon, which she had promised to pass with her friend Grace Miller.

"It always does rain at the wrong time," she muttered; "there's no sense in such nasty weather, anyway," and then she remembered what Miss Nottingham, her Sunday-school teacher, had said in class last Sabbath:

"There is no day so gloomy but that it may be brightened by an act of kindness. Try to make some one near you a little happier and see what a wonderful effect it will have upon the atmosphere."

Allie had not attended Sunday-school until very recently. Her mother was a fashionable, worldly woman, though she was pleased to have Allie join Miss Nottingham's class at Mrs. Miller's suggestion, for Grace belonged to it, and she was a lovely child with whom Mrs. Catherwood was glad to have her own daughter associated.

"There is nobody near to be kind to," mused Allie disconsolately. "Mamma is ill with a headache and wants to be quiet; she won't let me talk to the servants, and Mrs. Simpkins—well, Mrs. Simpkins is rather a hopeless case, but perhaps she'll do, only I don't know how to begin, and I am sure she would rather I didn't."

Mrs. Simpkins was the seamstress—a tall, pale-faced woman with a hard manner and an habitual frown. She rarely spoke to any one, and Mrs. Catherwood knew nothing of her—had never thought to inquire, beyond the fact that she did her work neatly and came and went regularly.

"She is not an attractive person, certainly," Mrs. C. had once remarked to an acquaintance, "but then she answers my purposes."

Allie crossed the hall of the great house and opened the door of the sewing-room, which was usually occupied by the pale seamstress. There sat Mrs. Simpkins as stiff and unsympathetic as a marble statue and as motionless, except that the needle flew in and out of her busy fingers.

"You look cold, Mrs. Simpkins," said Allie very gently. "Why has no one lighted the fire for you?"

The woman raised her eyelids in some surprise at the tone. It was the first time in her experience at the Catherwoods that any one had thought it necessary to consider her comfort, but as she did not care to explain that one of the servants had been grumbling about the trouble, it was "allns to be making fires for that stuck-up sewing woman," she merely shrugged her shoulders and said nothing.

"You have bad manners, Mrs. S.," thought Allie, feeling somewhat discouraged, "but I'll try again, having first lighted the fire."

A bright blaze was soon dancing here and there between the iron bars of the grate. Allie drew a footstool up and seated herself on it.

"Come nearer, Mrs. Simpkins," she said, in a kind little voice. "I'm lonely this afternoon, and I dare say you are. Let's talk. Do you live all by yourself at home?"

Mrs. Simpkins cleared her throat and answered rather ungraciously:

"No, not quite."

"Have you, perhaps, a little girl like me?" persisted Allie.

"No, not like you, child," said the strange woman, and Allie would have thought her very cross indeed if she had not seen her eyes glitter for a moment as if there were tears in

them. "My girl's a cripple," the seamstress added after a pause.

"Oh, I'm so sorry!" cried Allie with real feeling. "Why didn't you tell us about her before?" and then she blushed, for she remembered that neither her mother nor herself had ever seemed to care to know. How could they guess that the reticent seamstress was a devoted and self-sacrificing mother and that that deep furrow between her eyebrows was not the result of ill-temper but of anxiety.

Gradually Allie drew the whole story from her—the patient little sufferer, the long, lonely hours day after day spent in waiting for her mother's return in the evening; the struggles, the poverty; Mrs. Simpkins' own hope that she would one day be able to procure the necessary medical aid for her daughter, and the despair of repeated disappointment.

No one would have recognized the reserved seamstress in Mrs. Simpkins as she concluded her account. Her face was flushed and her hands trembled.

"Bless your kind eyes, child," she said; "it does a body good to talk to you."

Allie sat still for a long time lost in thought. "I'll ask papa," she exclaimed finally, as if to herself; "mamma might say it was all nonsense, but papa will let me do anything."

When Mr. Catherwood returned from his law office that evening, his little daughter met him at the front door and told him the history of her day.

"Dear papa," she pleaded, "they say you are rich. I am sure you must be, for we live in such a pretty house and I have more pocket money than most little girls. Won't you send the doctor to see Mrs. Simpkins' Mabel? Think what it would be if I were ill like that, and you could do nothing for me!"

There was a suspicion of tears in papa's own eyes as he raised his precious girl in his arms and kissed her.

"Yes, yes, my darling; if it is as you say, we'll see what can be done." And Allie thanked him with a hug, for she knew his word was as good as given.

I have no time to tell you of the comfort and relief which this rainy day was the means of bringing to Mrs. Simpkins and her invalid daughter, but Allie thought it all over before she went to bed that night.

"I've been sad to-day," she said, "but on the whole I'm happier than I ever was before;" and so it is that kindness invariably brings its own reward.

## DOMESTIC ECONOMY

### Hints for Dairymaids.

EDITORS PRESS:—During the cold weather, cream is often very difficult to churn.

1. If the cream is placed in a warm room for several hours previous to being churned, the task of churning will be made much lighter. If the cream is too sweet to churn quickly, put into it a teaspoonful of cream of tartar, and if it is too sour, a teaspoonful of baking soda or salt will help to separate the crumbs of butter.

2. When skimming milk, wet the skimmer in cold water to keep the cream from sticking to it.

3. When molding butter in warm weather, you can keep the rolls in much better shape if you place them on a piece of pine board, covered with a wet towel when taking them from the mold.

### To Pickle Olives.

EDITORS PRESS:—To three gallons of water, one can of lye or potash (no more water or less than three gallons to one of lye), I prefer potash, because it is easier dissolved. Take one gallon of water to boil it in, leaving two gallons of cold water to add to it. Ascertain the quantity of water it will require to just cover the olives by putting them into the barrel intended for them. Make a hole in the bottom and whittle an old broom-handle for the plug. It is not necessary to stir the olives in the lye bath, and the same barrel will do to freshen and salt them in.

Flourin.

COFFEE CAKE.—One-half cup of sugar, one-half cup of butter, one half cup of molasses, one-half cup of coffee, one teaspoonful of all kinds of spice, one cup of chopped raisins, one-half teaspoonful of soda. Flour to thicken.

FRIED APPLES.—These are an excellent breakfast dish. Wash, quarter and core good tart apples. Put into a frying-pan with a little water added, boil until nearly tender; then add sugar and butter and cook until tender and brown.

ROLL JELLY CAKE.—Three eggs and one cup each of sugar and flour; add sugar, two tablespoonfuls of water and a pinch of salt; lastly, very gradually stir in the flour, in which has been sifted a heaping teaspoonful of baking powder. Light brown sugar is best for roll cake.

CREAM CAKE.—One cup sugar, two eggs, two tablespoonfuls softened butter and four of milk, beat all well together, add a cup of flour in which has been mixed one teaspoonful of cream tartar and one-half teaspoonful of soda, and bake in a small dripping-pan. When cake is cold, have ready a pint of sweet cream, whip to a stiff froth, sweeten to taste, flavor, and pile on the cake. The cream will whip easier if set on ice first. Eat fresh.

## GOOD HEALTH.

HEALTH OF THE STATE.—From the circular issued by the State Board of Health for the month of December, 1890, just to hand, it is learned that the number of deaths in the State was 1196 out of an estimated population of 744,169. Of these deaths, 169 are attributed to consumption, 140 to pneumonia, 28 to bronchitis, 63 to diphtheria, 3 to smallpox, 31 to typhoid fever, 84 to heart diseases, 34 to cancer and 28 to alcoholism. The monthly percentage of deaths was 1.67 per thousand, or an annual mortality of 20.04, which is a higher death rate than that of the preceding month, and the highest death rate the State has had since January of last year, when influenza was epidemic. The increased death rate, the report says, was owing to the increase and fatality of diseases of the respiratory organs, including diphtheria and croup. The three deaths from smallpox all occurred in this city. In concluding its report, the State Board of Health says: We desire this month to call the attention of every health officer to the necessity of having all premises containing or having contained cases of infectious disease properly fumigated and disinfected under their supervision, and to discourage or, if possible, forbid the holding of a public funeral in every case of scarlet fever or diphtheria. Day by day we are called upon to record cases of disease contracted in this way. A general law should be passed making it a penal offense to fail to notify the public, by some distinctive flag or notice, of the presence of communicative disease, and any one holding a public funeral where the cause of death is infective should be severely punished.

HOW TO AVOID CHOKING.—Death by the clogging of the windpipe is an accident liable to happen to hungry persons eating hastily or to children, and calls for the greatest self-control and presence of mind on the part of those who are present. The substance which causes the choking may either be at the top of the throat, at the entrance to the gullet, or lower down. If at the upper part of the throat, prompt action will often remove it, either by thrusting the finger and thumb into the mouth and pulling the obstruction away, or, if it cannot be reached so as to pull it away, a piece of whalebone, a quill or even a penholder—anything at hand—should be seized and pushed down as a probang, so as to force the substance down the gullet. Ticking the back of the mouth with a feather, so as to produce violent retching, will sometimes dislodge it, or a sudden splashing of cold water in the face, which causes involuntary gasping. Should the patient become insensible before relief can be afforded, it must not be assumed for certain that death has taken place, and such remedies as dashing cold water in the face and on the chest and applying ammonia to the nostrils should be continued till medical aid arrives.—*Chicago Herald.*

ACIDITY OF THE STOMACH.—This condition is due to germs, and the cure lies in getting rid of the germs. Germs of fermentation in the stomach produce, first, alcohol, then carbonic acid, and then acetic acid. A person troubled with this form of dyspepsia should be careful to take only such articles of food as do not favor the development of germs, and thus starve them out. Another thing to do is to wash the germs out of the stomach by drinking freely of hot water before meals. If food is put into a stomach already sour, of course fermentation will be set up immediately. Some persons notice that as soon as they eat, their stomachs become sour. The third important thing to do is to stimulate the stomach to make more gastric juice, which is a natural antiseptic, and prevents fermentation, and also hastens absorption. The glands may be stimulated by applying hot fomentations to the stomach for half an hour immediately after the close of a meal, or, easier still, by wearing a rubber bag filled with hot water directly over the stomach for half an hour or an hour. Heat is a natural stimulant, and there are no possible ill effects from its use in this way.—*Good Health.*

PRECAUTIONS AGAINST CONSUMPTION.—In a circular on precautions against consumption, published by the State Board of Health of Pennsylvania, the following advice is given: The duster, and especially that potent distributor of germs, the feather duster, should never be used in a room habitually occupied by a consumptive. The floor, woodwork, and furniture should be wiped with a damp cloth. The patient's clothing should be kept by itself, and thoroughly boiled when washed. It need hardly be said that the room should be ventilated as thoroughly as is consistent with the maintenance of a proper temperature.

INTELLECTUAL WORK.—"It is not intellectual work that injures the brain," says the *London Hospital*, "but emotional excitement. Most men can stand the severest thought and study of which their brains are capable, and he none the worse for it, for neither thought nor study interferes with the recuperative influence of sleep. It is ambition, anxiety, and disappointment, the hopes and fears, the loves and hates of our lives, that wear out our nervous system and endanger the balance of the brain."



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Situation Wanted.—W. Vortriede, Coronado. Trees.—Bell Conservatory Co., Sacramento. Washing Machine.—E. W. Melvin, Sacramento. Cattle Auction.—Killip & Co. Veterinary Surgeon.—C. J. Creely. Veterinary Dentist.—Dr. W. H. Woodruff. Stockton Nurseries.—E. C. Clowes, Stockton. Nursery Stock.—W. M. Williams, Fresno. Semi-Annual Statement.—Grangers' Bank. Annual Meeting.—The Equity Benefit Association. American Exchange Hotel. Trees.—Riverside Nursery and Fruit Farm, Lodi. Plants.—John Saul, Washington, D. C. Seeds.—Northrup, Braslan & Goodwin Co., Minneapolis. Ditching Machine.—S. E. G., S. F. Enlarged Pictures.—E. W. Melvin, Sacramento. Commission Merchants.—Wetmore Bros. Nursery Stock.—James T. Bogue, Marysville. Turkeys.—E. Hart, Clements. Incubators.—Pacific Incubator Co., Oakland. Plows, Scrapers, Harrows, Etc.—Truman, Hooker & Co. Seeds.—James A. Anderson, Lodi. Ear-Marking Label.—C. H. Dana, West Lebanon, O. Sorghum.—Blynnyer Iron Works, Cincinnati, O.

## The Week.

The promise of a general rain as we went to press a week ago proved illusive, and there has been a continuation of most delightful days along the coast with alternating strong north winds and fogs in the interior and delightful weather in Southern California. It is proving a perfect winter from a tourist's point of view and from the field-worker's point of view too, for hardly a day has been lost. There has been a vast area sown and much planting done. Moderate rains, if seasonable, will bring forward things magnificently.

The Legislature is still hard at work and the genius of economy still seems to hold sway. Strong opposition is being developed to any

extravagant expenditure for the World's Fair, and certainly the people are not disposed to cramp themselves with taxes to provide gorgeous apparitions for the products which will speak for themselves. California should make a good display, but extravagance should not be allowed.

## Silk in California.

The fifth annual report of the Ladies' Silk Culture Society of California has just been issued and is a document of very great local interest and importance, as it shows the accomplishment of many significant things. In the introductory portion of his report as president, Mr. W. B. Ewer points out clearly the amount of work which has been done with the limited funds intrusted to the board, and argues strongly against a disposition to underrate the accomplishment because, owing to the length of time required to establish a silk station and bring a mulberry grove up to the yield of large quantities of leaves, there have not been large results attained immediately. But Mr. Ewer proceeds to show, and in fact does show incidentally all through his argument, that there has been a vast amount of valuable work done, although the society has been constantly under the cloud of insufficient means to realize its plans and purposes. The item of this showing we have not space to set forth and must refer the student of the progress of silk-culture efforts to the perusal of the report itself. As it now stands, unless Congress shall take special action and restore the item for the Pacific Coast work to the appropriation bill, the Ladies' Society will be thrown again upon its own resources. The injustice of such refusal of Government aid is shown in this forcible paragraph in the report:

The women of this, our Golden State, joined hands with their sisters in the East, and through wise management and slow but sure progress have demonstrated, beyond the possibility of a doubt, that the United States can produce silk of a quality not excelled by any other nation on the globe. The efforts on both sides of the continent have secured more or less aid from the Government. Their united efforts have reached results in ten years which took the Government of France fully one hundred years of time, and more than ten, probably twenty, times the amount of money that our own Government has expended. A careful and candid observation of the progress which has been made on this coast, we are fully persuaded, will not suffer in any way by comparison with what has been done at the East, even at a much larger expenditure, than has been appropriated for the work in California. All we ask is a slight advance on previous appropriations to carry out our work in full, as already outlined in this report. It is to be hoped that Congress will see the impropriety of withholding appropriations from the women of this State while continuing them to their sisters in the East.

The report of the secretary, Mrs. L. E. Pratt, is also a strong showing for the efficacy of the society's work. Incidentally there is given a little glimpse at the desk of the secretary, which shows that it has not been tenantless. We quote:

Early in the season I was instructed to notify producers that the society would purchase cocoons at prices heretofore paid, receiving them unstuffed and remitting amounts due within 30 days thereafter. This stimulated correspondence, upward of 800 letters having been received and answered during the year, 25 counties being represented in the list of correspondents. \* \* \* I have personally supervised the weighing of all cocoons and report 600 pounds purchased, mostly in an unstuffed condition. The quantity would have been largely in excess of the previous year but for the lack of suitable buildings for increased work, and the disease so generally reported among worms from seed last distributed. I am pleased to note the generally improved quality as compared with those of previous years from the same locality. The amount disbursed for the purchase of cocoons appended below has been paid out in sums varying from 73 45-100 dollars to 25 cents.

But though these matters show work and progress, we find in the report of the Experimental Committee an achievement which seems to be beyond parallel and of great local significance.

The experiment for 1890 was begun at the Piedmont station April 29th, and was made with the seed of the most select variety of silk worms, viz.: the *Frutulari* produced at the station the previous year under the careful supervision of Prof. J. J. Rivera. The hatching was most successful, fully 97 per cent completing the hatch by the fourth day, a result which we believe is without precedent. There being a sufficient supply of the *Mulicaulis*, all were fed on this variety until the third molting, when they were separated into three divisions. First

division, consisting of the best specimens of the first and second days hatch, were fed entirely on *Mulicaulis*, until the time of spinning. The second division, composed of those a little less in size, were fed on the *M. Albi* and *M. Rosa* from the third molt to the time of spinning. The third division, comprising about 1400, the least in size of all, were placed in charge of a lady 81 years of age, and were fed on *M. Albi* alternating with *Nagasaki*, with the result that the second and third divisions made a most remarkable growth, and although a little later in spinning, their cocoons were so nearly the same as to size, weight, etc., of those first spun, as to be indistinguishable, if by accident they were exchanged.

The result of the experiment fully establishes the superiority of the *M. Albi*, *M. Rosa* and *Nagasaki* for later feeding, and I doubt not if a portion of the most robust worms had been fed on these varieties from the third molting, those cocoons would have excelled the others, but want of room prevented the experiment.

There were no signs of disease as viewed under the microscope or otherwise, there being less than 25 sluggish worms in the whole brood, which were destroyed, each one of the remainder completing a cocoon within 35 days from the time of hatching.

The result of the experiment proves the superiority of acclimated seed over that of imported, in that about 97 per cent successfully hatched, whereas 80 per cent is a good average from imported seed.

The silkworms from seed produced here were much more vigorous and healthy than those from imported seed; consequently, the loss sustained by disease was very slight, whereas a loss of 20 per cent must be counted on from imported seed.

This record shows that California silkworm eggs have an exceptionally high percentage of life and strength and are vastly superior to the imported. It seems to revive again the hope enjoyed a score of years ago that California might be the supply region of strong, healthy eggs for the silk producers of less favored regions. There is certainly found in the report of the society for the last year abundant evidence that its work should not only be continued but should be extended.

## The Fruit Union.

The stockholders of the California Fruit Union had a harmonious meeting in this city on Wednesday of this week, President Anderson in the chair. Owing to the lateness of the hour we are unable to present in this issue the report of the trustees as presented by the secretary, H. A. Fairbank. It contained many interesting facts and will be found in full in next week's *RURAL*. The books show a business conducted amounting to nearly a million and three-quarters dollars for the seven shipping months, requiring handling of nearly 1400 cars of fruit, with 600 or more forwarded by various members, making a grand total but few short of 2000 out of about 3300 shipped by the entire State. The trustees, without contradiction, lay claim to the distinction of having forwarded nearly two-thirds of the entire green deciduous fruit shipments of the State. The 1373 carloads shipped East went from 31 shipping points in the State as follows: There were 322 shippers the past season, compared to 173 in 1889.

Financially the union was never more prosperous. With all debts paid and nothing outstanding there is in the treasury \$34,000 as the result of the season's work. The directors have voted a dividend of 6 per cent and a rebate of 2.10 per cent on gross sales of shipping members.

The expenses were as follows: Office, \$1614; profit and loss, \$12,657; salary, \$6460; traveling expenses, \$1468; office fixtures, \$660; telephone, \$365; freight, \$250; telegraph, \$2881; taxes, \$31.

On motion, all present trustees were re-elected, as follows: R. D. Stephens, S. Gerson, Sacramento; W. B. Parker, L. W. Buck, Vacaville; Webster Treat, Davisville; J. C. Boggs, Newcastle; H. W. Meek, San Lorenzo; A. Block, Santa Clara; J. Z. Anderson, San Jose.

**ILLNESS OF W. G. KLEE.**—Readers of the *RURAL PRESS* who regretted to hear that W. G. Klee was obliged to lay aside his University work because of ill-health will be pained to know that he is still suffering from severe indisposition at his ranch near Santa Cruz. He is suffering with a serious malady of the lungs. His reputation for careful work and his quiet, unostentatious manner made him a most acceptable acquaintance, and he was esteemed in all parts of the State. A favorable turn of the disease would be hailed with general satisfaction.

## The Orange-Growers Combine.

Last week we stated briefly that the orange-growers of the South were quite out of patience with the combined action of the orange-buyers, who declared themselves as ready to buy fruit only upon a contract and a scheme of grading and rejection of culls which is exceedingly objectionable to growers. Local meetings were held last week at various producing points, and as we go to press telegraphed reports come of a general assemblage of delegates from the various localities at Los Angeles. It is stated that at the meeting every orange-producing locality in this section of the State is represented. The general tenor of the discussion indicated that the growers had arrived at the conclusion that the middlemen had been squeezing them for years, until they proposed to stand it no longer. Numerous instances of where shippers had imposed upon growers were recited. All favored an immediate organization, which it was decided to form. A Committee on Organization was appointed and reported to form an Orange-Growers' Union.

The committee recommended that the union should incorporate and that a subscription list be opened with shares fixed at \$5; that the object of the association should be to buy and sell oranges, lemons, fresh and dried fruits, and other articles of general merchandise; to own and sell real estate necessary to its business. The recommendations were adopted and 400 shares were immediately subscribed.

Other meetings of the association were provided for, of which we shall have reports later.

## The Fair at Marysville.

The State Citrus Fair for Northern and Central California, held last week at Marysville, proved a thorough and glad success. The widespread interest it had aroused all up and down the Sacramento valley was attested by displays representative of many places, ranging northward from the Capital to Red Bluff and even to Siskiyou. Tehama and all the counties shuttling on Sutter took part; and the people of the immediate neighborhood entered into the work of preparation and aided the efficient managers in carrying the affair through, with an all-conquering alliance of unanimity, enthusiasm, judgment and energy.

The exhibition was superb, the skies propitious, the attendance overwhelming, the receipts abundant, the lessons at once cheering and suggestive, the pleasure and satisfaction general.

We give on pages 69 and 81 the first installment of an account by the *RURAL*'s special reporter and the list of premiums awarded, and have a good deal more to follow in later issues.

## Our Annual Review.

It has been our custom for years to "take stock," as the mercantile phrase goes, of California's industrial deeds and progress in the agricultural line. Our review, which occupies large space in this issue, is unusually full and interesting and constitutes an epitomized history of the year 1890, which in some respects was the greatest of the 40 years of California's life as an American commonwealth. This review is not useful alone for casual reading and for present information, but should be preserved for reference, as its data will serve to enforce many an argument in favor of California's resources and industries and give the ground-work for many a glowing paragraph in essay or oration. The compilation and discussion involved in the preparation of the review has cost much time and labor and we trust will prove acceptable to our readers.

**HONORS TO A CALIFORNIAN.**—We are glad to see that the American Forestry Association has elected Hon. Wm. Alvord of San Francisco as its president. Mr. Alvord is well known to Californians as a devoted lover of Nature's work in tree and shrub and flower and as a patron and promoter of all honorable undertakings in the interest of forestry and floriculture. He served with high acceptability as one of the Commissioners of Golden Gate Park and set in motion many measures for the improvement of the park of which the public is now reaping the benefit. We are especially pleased that the presidency of the National Forestry Association should be awarded to a Californian and so well placed individually as with Mr. Alvord.



Our advices from Oregon and Washington also indicate a large crop this year. The only present drawback to this coast appears to be the prospective scarcity of tonnage. The higher duties charged on foreign goods will necessitate ships either taking inward cargoes for less money or else coming in ballast; but in either event the ships will charge more for wheat-loading. This comes out of the farmers. But when the latter, who appeared tolerably well accustomed to being made a foothill, are organizing to see if they cannot, by legislation, get some of the cream that is going. Farmers on this coast want lower freights. Those who



grow grain want lower rates by ships, and the others lower rates by rail. As soon as the higher tariff went into effect, the overland railroads increased their freight rates, thus getting away and all prospective advantages that might have accrued to farmers.

#### Wheat Prices Since 1864.

We are indebted to Albert Montpelier, Manager of the Grangers' Bank, for the following very important table showing the

PRICE OF WHEAT IN THE SAN FRANCISCO WHEAT MARKET FOR 26 YEARS FROM JUNE, 1864, TO DEC. 15, 1890.

Year	Highest	Lowest	Difference	Average
1864-65	\$5.30	\$2.30	\$3.00	\$4.15
1865-66	2.15	1.60	.45	1.97
1866-67	2.22	1.25	.97	1.76
1867-68	3.10	1.50	1.60	2.31
1868-69	2.50	1.17	1.33	1.71
1869-70	1.95	1.05	.90	1.70
1870-71	3.15	1.55	1.60	2.25
1871-72	2.85	1.52	1.33	2.29
1872-73	2.16	1.25	.91	1.95
1873-74	2.37	1.60	.77	2.02
1874-75	1.85	1.30	.55	1.60
1875-76	2.32	1.65	.67	1.96
1876-77	3.00	1.45	1.55	1.93
1877-78	2.45	1.82	.63	2.10
1878-79	1.77	1.57	.20	1.67
1879-80	1.67	1.45	.22	1.81
1880-81	1.75	1.25	.50	1.62
1881-82	1.75	1.60	.15	1.73
1882-83	2.05	1.60	.45	1.73
1883-84	1.87	1.42	.45	1.64
1884-85	1.50	1.17	.33	1.33
1885-86	1.50	1.25	.25	1.36
1886-87	2.10	1.22	.88	1.52
1887-88	2.12	1.22	.90	1.37
1888-89	1.63	1.25	.38	1.43
1889-90	1.30	1.25	.05	1.29
Crop 1890	1.40	1.27	.13	1.33

\*Wheat collapsed.

#### Flour.

The flour trade in 1890 was fairly satisfactory. The output of the mills was larger, while the home consumption was fully 20 per cent over that of 1889. The increased consumption was due to a larger population and also to the very high prices ruling for vegetables the first four months in the year. While the output of flour shows an increase over that of 1889, that of 1891 promises to be much larger, owing to more new mills coming into operation. A local paper, noticing the prospective increase, says that two or three new mills are about ready to start in business, the principal ones being that of Starr & Co. at Port Costa, the Farmers' Union Mill at Stockton, and a small one at Red Bluff. These will add considerably to our milling capacity, but as the principal (Starr's) is already needed to supply an increased European demand, it is not expected that local competition will be much increased.

Oregon and Washington have been fair contributors to our market. Receipts from these two sources aggregate during the year \$4,600 bbls. The exports in 1890 were as follows:

To	Barrels	To	Barrels
United Kingdom	432,936	British Columbia	3,238
China	417,546	France	1,375
Central America	160,286	Sumatra Islands	395
Hawaiian Islands	57,294	Brazil	275
Australia	685	Marquesas Islands	182
Ecuador	32,067	Marshall Islands	117
Japan	43,309	Gilbert Islands	25
Panama	11,007	Peru	160
Society Islands	13,166	Singapore	125
Asiatic Russia	15,482	Hervy Islands	50
Philippine Islands	11,200	East Indies	125
Mexico	5,680	Corea	2

Total.....1,207,607

The above shipments were valued at \$4,925,778. The exports aggregated in 1889 1,130,950 bbls., valued at \$4,754,589; in 1888, 824,655; in 1887, 797,232.

#### Barley.

For three years preceding 1890, the barley market went from bad to worse, with the lowest prices (52½ to 62½ for feed) touched in 1889 ever before known. The above low range was brought about by large quantities of weevil barley thrown on the market, breaking prices, which caused large holdings of hypotheated barley to be sold by those who had advanced the money. Of necessity, farmers became discouraged and consequently there was no increase in the acreage seeded to the grain, while the consumption for feeding has increased. With the opening up of vineyards and orchards, and a steady increase in the number of farmers who believe in small farms, each year calls for the use of more farm animals. The number of horses in the State is placed at 300,000, and mules at 84,000. Say that 75 per cent are fed the year round, it will be seen that the quantity of barley fed out is very large, which, added to that fed out by dairymen and others when ground or rolled, makes the quantity very large. By reference to the following comparison table of acreage seeded by counties in 1889 and 1890, it will be seen that there was a decided falling off in the latter year:

Counties	1889.	1890.
Alameda	20,967	20,415
Alpine	460	400
Amador	12,515	10,950
Butte	24,619	19,721
Calaveras	1,100	250
Colusa	48,633	23,022
Contra Costa	42,970	30,540
Del Norte	300	150
El Dorado	2,002	564
Fresno	36,242	34,471
Humboldt	19,450	1,613
Inyo	571	455
Kern	25,000	8,000
Lake	3,570	2,600
Los Angeles	35,290	34,170
Marin	417	.....
Mariposa	5,078	1,802
Merced	52,000	25,000
Modoc	33,000	32,100
Monterey	75,000	60,000
Napa	5,847	6,374
Nevada	587	.....
Orange	10,760	10,760

Placer	9,670	1,718
Sacramento	38,460	26,725
San Benito	16,915	13,680
San Bernardino	103,587	93,450
San Diego	30,447	27,350
San Joaquin	108,920	53,049
San Luis Obispo	48,300	51,429
San Mateo	3,720	3,000
Santa Barbara	38,149	32,855
Santa Clara	20,370	18,560
Santa Cruz	3,110	3,220
Shasta	6,215	545
Sierra	1,850	1,600
Siskiyou	5,380	2,588
Solano	35,720	22,510
Sonoma	13,159	.....
Stanislaus	33,149	28,150
Sutter	21,840	4,800
Tehama	27,840	21,760
Trinity	200	200
Tulare	63,425	65,346
Tuolumne	2,000	1,800
Ventura	58,738	33,625
Yolo	20,000	12,700
Yuba	11,060	4,850

Totals.....1,167,627 86,270

The decreased acreage was due to a great extent to almost continuous rains in the months best adapted to barley seeding.

The course of the market in 1890 is an interesting study. The year opened for feed strong at 75 to 85, advanced slightly, then fell back to 73½ to 83½ cents, and rallied again, closing the month of January weak at 75 to 87½ cents.

The month of February was generally dull, with the market fluctuating. At one time sales for the best grade of feed were made at 80 cents a cental. In March, feed declined to 75 to 77½, but again improved to 85 to 87½ for No. 1. Brewing advanced too, and was quotable as a range 90 to \$1.02½. April saw feed advance to 90 to 95c and brewing to \$1.05 to \$1.15. Feed again went up on the 21st of April to 95 to \$1 and brewing to \$1.05 to \$1.17½. The market closed weak at 95 to 96½c for feed and \$1.02½ to \$1.12½ for brewing. Early in May feed advanced to \$1 to \$1.05 and brewing to \$1.07½ to \$1.20; but on the 6th a reduction of 6½ took place in the former and 2½ in the latter. The next week was a week of fluctuation; feed No. 1, however, advancing to \$1.02½ to \$1.05 and brewing to \$1.07½ to \$1.20. Before the close of the month feed went down to 97½ to \$1.01½ and brewing to \$1.05 to \$1.17½. New barley put in its appearance early in June, some selling at \$1.06½ for feed. No. 1 feed opened at 97½c. It soon went up to \$1 to \$1.03½.

July opened steady but strong. By the middle of the month, sales were readily made at a range of \$1.07½ to \$1.17½ for feed. The market continued throughout the month on its up course, closing strong at a range of \$1.17½ to \$1.23½ per cental for feed, with brewing correspondingly higher.

In August the market was strong and excited at times, causing fluctuating prices. The month closed strong at \$1.26½ to \$1.33½ per cental.

The market in September opened weak and slightly lower, but soon recovered, with sales made before the 10th as high as \$1.40 for the best feed. A weaker feeling set in about the 12th, causing a gradual shading in prices until the range had dropped to \$1.27½ to \$1.33½, at which the month closed steady but very strong.

October opened to stronger and higher prices. Before the end of the first week, the range was \$1.33½ to \$1.40 per cental; by the 22d it was 2½ cents higher; and before the end of the month, \$1.40 to \$1.50 was quoted. The month closed steady but strong.

In November the market opened steady but strong, and advanced by degrees up to \$1.47½ to \$1.57½ by the 19th, after which prices began to shade off.

The market opened in December weak at \$1.40 to \$1.48½, but soon rallied 5 cents, after which it began to shade off, closing the year at \$1.42½ to \$1.50.

The receipts of barley in 1890 aggregated 1,162,266 centals by railroad and river, and 576,933 centals by railroad and river, and 576,933 centals by coast vessels. Total, 1,729,199, against 2,208,003 in 1889 and 2,867,796 in 1888. The exports by sea in 1889 and 1890 compare as follows:

To	1889.	1890.
England	332,962	44,811
New York	295,424	90,536
Hawaiian Islands	138,253	165,568
Australia	30,934	14,504
British Columbia	8,028	14,165
Society Islands	5,733	.....
Central America	223	263
Mexico	41,585	27
Gilbert Islands	29	20
Marquesas Islands	16	264
Tabiti	.....	4,660
Japan	83,978	4,054
Philippine Islands	.....	190

Totals.....832,843 339,174

The exports by sea and by rail by months in 1890 compare as follows with 1889:

Months	1889.	1890.
January, cts	28,805	20,239
February	33,918	10,833
March	13,812	2,873
April	14,109	4,004
May	15,319	17,006
June	20,572	8,374
July	41,585	17,335
August	125,993	7,127
September	234,880	26,077
October	201,628	51,600
November	83,978	14,739
December	15,244	4,675

Totals.....832,843 162,876 339,174

Years	Sea.	Rail.	Totals.
1890, cts	339,174	12,932	352,106
1889	832,843	162,876	995,719
1888	1,024,060	784,643	1,708,703

1887	415,330	78,118	493,457
1886	753,648	245,695	999,343
1885	185,297	92,760	278,057

Although high prices during the year interfered with a free movement of barley onward, yet the stock in the State on Dec. 1, 1890, was the lightest since 1885.

The first receipts of new-crop barley and prices received since 1870 are as follows:

Year.	Month.	Price.	Year.	Month.	Price.
1870	June 19	\$1.20	1881	June 21	90
1871	June 12	57½	1882	June 12	1.65
1872	June 6	1.40	1883	June 25	95
1873	June 5	1.10	1884	June 28	90
1874	June 9	1.45	1885	June 15	1.25
1875	June 20	1.35	1886	May 26	1.28
1876	May 30	90	1887	June 3	1.15
1877	June 30	1.55	1888	June 5	92½
1878	June 11	80	1889	June 1	75
1879	June 30	75	1890	May 31	1.06½
1880	June 24	64½			

#### Oats.

The consumption of oats in this State continues to steadily enlarge, calling each year for larger quantities. The growing attention given to thoroughbred horses and an enlarging use of roadsters and fast-driving animals in general, demand more oats for feed. To those who have not kept informed upon the movements of oats so as to form a correct opinion in regard to our source of supply in this State, a comparison of acreage seeded to oats in 1889 and 1890 will be of unusual interest, while the acreage by counties will be of value to agriculturists and dealers alike. The following table of comparison is compiled from County Assessors' returns:

Counties	1889.	1890.
Alameda	175	210
Alpine	630	670
Amador	75	50
Colusa	215	68
Contra Costa	1,500	1,600
Del Norte	907	907
El Dorado	204	204
Fresno	526	81
Humboldt	25,792	3,749
Inyo	681	836
Lake	720	450
Marin	522	320
Mariposa	634	.....
Merced	7,500	7,500
Modoc	3,540	11,350
Monoc	24	24
Monterey	7,500	6,000
Napa	1,376	1,645
Nevada	1,235	.....
Orange	1,000	1,000
Placer	2,865	1,718
Sacramento	415	215
San Benito	510	50
San Diego	1,650	1,582
San Joaquin	417	309
San Luis Obispo	4,246	4,341
San Mateo	2,915	1,900
Santa Clara	115	174
Santa Cruz	4,920	5,080
Shasta	1,121	409
Sierra	1,000	1,200
Siskiyou	3,646	1,766
Solano	191	.....
Sonoma	4,728	.....
Stanislaus	425	343
Sutter	368	380
Tehama	3,300	2,350
Trinity	500	500
Tulare	375	580
Tuolumne	800	700
Ventura	1,271	805
Yuba	.....	.....

Totals.....115,601 60,197

In several counties there are no returns of oats being seeded. The falling off in the acreage seeded in 1890 in comparison with that seeded in 1889 is quite marked. The receipts in 1890 aggregated at San Francisco 137,423 centals of Californian, and 401,304 centals of Oregon and Washington. Total 584,570 centals. In 1888 the receipts aggregated 552,258; in 1887, 351,705; in 1886, 402,025; and in 1885, 589,403. While the aggregate receipts at this port show an increase, the lessened acreage is a sure index that many interior points had a lessened supply.

The year opened on a firm market at \$1.20 to \$1.30 per cental for fair to choice feed. The receipts were light and demand good. Under an increasing call, the range was advanced 2½ cents, at which point it held fairly steady to the end of the month.

February opened to a stronger market with the range marked up to \$1.25 to \$1.33½ per cental. With continued light receipts and a free inquiry, the market advanced until the range reached \$1.30 to \$1.42½ by the middle of the month. The higher prices brought in freer supplies, causing an easier tone to prevail.

March entered upon a weak market, with the range quoted for fair to choice at \$1.28½ to \$1.37½ per cental. This decline was due to free supplies and buyers holding off. The market continued to shade off until by the 17th the range had fallen to \$1.22½ to \$1.30, at which it remained steady until near the close, when it began to strengthen.

In April the market began to exhibit more life at rapidly advancing figures, closing the month at \$1.60 to \$1.75 for fair to choice feed. At this high range the market held strong the first week in May, after which it began to ease off under freer prospective receipts and buyers bidding down. Prices went down quite fast the latter part of the month, when the highest range quoted was \$1.51 to \$1.62½.

The market in June opened weak at \$1.50 to \$1.60, and held steady until the close. Throughout the month of July no change was quoted either by buyers or sellers.

August opened to a stronger market, with a higher range setting in. There was a steady increase in prices, until by the 26th the range was \$1.55 to \$1.71½ per cental. These higher prices brought in free receipts, which caused prices to break back 10 cents per cental, but under strong buying and firmer holding the

range soon ran up to \$1.60 to \$1.70. The month closed very strong.

November opened to a strong and higher market, the range by the 5th being \$1.65 to \$1.75, by the 12th it was \$1.70 to \$1.80, and by the 19th the range was up to \$1.70 to \$2. With more offering, the month went out on a weaker market.

The market came in in December weak at \$1.70 to \$1.96½, and sank by the 17th to \$1.70 to \$1.92½, at which range it closed the month and year strong. There have been unusually heavy purchases of oats for seeding. Black oats fed sold at over \$2.25 toward the close of the year.

The exports by sea in 1890 were 27,711 centals, as follows:

To	Centals.
Hawaiian Islands	26,807
China	398
Central America	170
Japan	119
Panama	111
Elsewhere	106

Total.....27,711

In 1889 the exports were 53,080 centals. Australia took, in 1889, 31,167 cts, and Hawaiian Islands 24,001.

#### Corn.

The acreage seeded to corn in 1889 aggregated 75,382 acres, and in 1890, 80,602. In Los Angeles and Sonoma counties the acreage aggregated 28,717 acres in 1889, and a little over 30,000 in 1890.

The year opened on a dull but steady market at \$1.05 to \$1.15 per cental for white and 95 cents to \$1.02½ for yellow. The market soon shaded off 5 cents per cental for white, but held steady for yellow, closing the month at unchanged quotations.

The market opened weak in February, but began to strengthen about the 5th, making an advance by the 12th of 5 cents a cental for both kinds. At the advance the market held steady the remainder of the month, throughout March and well into April. The latter month closed strong at \$1.05 to \$1.12½ for white and \$1.10 to \$1.17½ for yellow.



into consideration the almost prohibitory tariff on foreign wools, the market was far from satisfactory. The high tariff allows the railroads to get the lion's share of the duties by charging high freights. Between the high duties and labor unions the wool manufacturing industry of this coast—particularly of this city—has been paralyzed, consequently very little wool is consumed here and about all is sent to the East for a market. Any manufacturing industry, in order to thrive, must have either cheap labor or else cheap raw material. When the woolen-mills were prohibited by labor unions from employing Chinamen, they had to shut down or else restrict their production, because to get the right kind of foreign wools for mixing brought the cost of certain lines of woolen goods to too high figures for competition with the goods brought to this coast. Out of a total production of about 60,000,000 lbs. of wool on this coast, not more than one-tenth is consumed here. There are now in this State in operation the Golden Gate Mill of this city, the San Jose, Santa Rosa, Marysville, Merced, Napa, Petaluma and Los Angeles Woolen-Mills, and several in Oregon and other parts of the coast. The bulk of the cloths and cassimeres manufactured by these woolen-mills is made into clothing by the several companies which manufacture the cloth, and the market is, besides this State, the entire northwest territory. Still, this is a very limited population, and the tariff on Australian wools prevents much of that being used at the present time in the manufacture of the cloths. This Australian wool is needed to mix with the domestic wools in the manufacture of fine cloths, as it has a finer and stronger fiber and increases the strength and durability of the article.

The market prices the past year did not show any material change from those current in 1889, while the increased duties under the McKinley tariff have not stimulated values, and this too in the face of small stocks throughout the country.

The Boston Commercial Bulletin, a usually well-informed journal on the wool industry, reports the grand total of domestic wool unsold in the country as follows, compared with preceding years:

Year.	Pounds.
1891.....	73,928,331
1890.....	85,000,000
1889.....	65,000,000
1888.....	110,000,000

The foreign wools held, compare as follows: On Jan. 1, 1890, 11,250,750 pounds; 1891, 8,311,510. The grade of foreign is chiefly carpet, being fully one-half of the grand total.

The production of California wools compares as follows:

Year.	Pounds.	Year.	Pounds.
1890.....	34,917,320	1885.....	36,561,390
1889.....	33,591,720	1884.....	37,415,330
1888.....	32,569,979	1883.....	40,848,690
1887.....	31,564,221	1882.....	40,529,119
1886.....	38,509,160	1881.....	45,076,639

While California shows a slight increase, the production of Oregon and Nevada fell off. The falling off in the latter State is due to heavy losses of sheep in the winter of 1889-90, owing to heavy rains and severe weather.

A contemporary states that in condition the spring clip was rather above the average, being well grown and sound in staple, and with the exception of a few more scabby fleeces in the northern wools, the shrinkage was lighter than usual. The fall clip did not vary much from average years. The mountain wools were well grown, but with the usual fall amount of dust, while the wools from the valleys showed the usual amount of seed and hurr. The Oregon wools, on account of the low condition of the flocks during the severe winter, were not well grown, the product being tender in staple and at the same time no lighter in shrinkage. As has been the case for some years past, a large portion of the Oregon and Nevada wool—nearly all the fall clip and some of the dustier spring wools—have been scored here before being sent East. The quantity scored during the past year aggregates nearly 20,000,000 lbs. of grease wool, making a scored product of about 6,000,000 lbs. of clean wool ready for the cards. Experience has shown this to be the best way to handle all dusty wools and wools of heavy shrinkage or of defective grade.

Hops.

The year 1890 entered on a small stock of hops on this coast, yet for the first four months prices did not vary any. Toward the close of May and running into June, there was a better tone, with buyers showing more anxiety to contract. Under freer competitive buying, prices gradually strengthened for new-crop delivery. Their anxiety was heightened by confirmed advices that the crop in Europe and also at the East would be short. As early as August 1st, it was admitted that England could not harvest to exceed 160,000, old duty, equivalent to 200,000 bales American, from about 54,000 acres, against a consumptive home demand variously estimated at from 450,000 to 650,000 bales, the higher estimate being that of Charles Whitehead. Germany was credited with a shortage of 50,000 bales and America 60,000 bales. Allowing about 150,000 of "Olds," there promised a shortage in the world's supply of from 150,000 to 200,000 bales, and the movement of crops thus far seems to have verified it. On this coast, the crop was, taken as a whole, large and of a good average quality. While Oregon and Washington increased their output, California fell off slightly. The falling off in this State was due to heavy rains and

floods in some localities. The crop as harvested shows the following yield in bales: Washington, 43,000; Oregon, 17,550; California, 33,300. Total, 93,850 bales. The movements were quite rapid, reducing supplies in a brief space of time, so that by the end of the year the stocks in growers' and dealers' hands are estimated to have been as follows in bales: Washington, 4000; Oregon, 1500; California, 4329. Total, 9829 bales.

Since July 1, 1890, the beginning of the new season, market values were continuously on the upgrade until the end of October, when top prices were touched. The range of values for the season closely followed the crop indications, though influenced at the close by money stringency in all countries: July, from 17 to 20 cents; August, from 20 to 30; September, from 30 to 35; October, from 32½ to 40; November, from 40 to 35; December, 35 to 30 cents. Although 35 cents in December was quoted as the highest price by dealers, yet for gilt-edged 40 cents was readily obtainable.

A contemporary states that Pacific Coast farmers have their future in their own hands. The "hop louse" can be disposed of by energetic measures. Neither shade trees nor cultivated or wild plum trees should be allowed close to a hop garden. Hop vines after harvest should be immediately burned. Every farmer should be prepared to wash and spray his vines. Our climatic conditions are more favorable than other hop-producing countries. With careful management from the planting to the baling, we need not fear the skylight comparisons of the experts of the London borage.

Honey.

The wet winter of 1889-90, with favorable spring weather, caused an abundance of flower which was taken advantage of by the bees to lay in a large stock of honey. The output in 1890 was fully 25 per cent over that of 1889, while the grade averaged better. In 1889 there was a large percentage of dark, but in 1890 the percentage was quite small. The season of 1890 opened at 10 to 11 cents for select 1-lb. comb, 9 to 10 cents for 2 lb., 5½ to 5½ cents for best extracted, and 4½ to 5 cents for common to medium. The market held at about the above ranges until August, when there was a hardening of fully one-half of a cent in comb and one-quarter of a cent in extracted. In September values were again moved upward, choice to select comb going at 11 to 12 cents and best extracted selling up to 6½ cents. Prices continued to improve in October, best comb being marked up to 13 cents wholesale, and choice extracted commanding 6½ cents. During the last month of the year, sales of white comb in 1-lb. frames were effected at 14 cents, but transfers at this figure were confined mainly to jobbing operations. Choice extracted same month sold up to 7 cents, but this was also more of a jobbing than a wholesale rate. The year opens with rather small stocks in the hands of local jobbers. The shipping demand has been exceptionally good for both comb and extracted most of the season, in comb honey 1-lb. frames receiving the decided preference.

The movements of honey last year showed a decided increase to foreign ports direct. There was a total shipment from the State of over 23,000 cases. Of this quantity, nearly 20,000 cases were of the new crop. The shipments by sea included 2900 cases to England, 2013 to Germany, 200 to France, and several hundred to Australia. The largest single shipment was to Germany in September, 1131 cases per bark G. N. Wilcox, the same vessel taking a small lot of 50 cases for England. The next largest shipment of the year was also destined for Germany, being 775 cases in June per bark Deanfield for Hamburg. Seven ships destined for Liverpool took honey as part cargo, the invoices ranging from 76 cases to 700, and aggregating 2424 cases. The two largest amounts for Liverpool were by the Desdemona in November and the Armeda in October, the former vessel taking 700 and the latter 631 cases. Two shipments went to London direct, one of 125 cases in October and the other of 300 cases last month. The initial shipment of 1891, worthy of special mention, was cleared on Jan. 4th, for Liverpool, being 177 cases per ship California.

Dairy Products.

BUTTER.			
Months—	California.	Eastern.	Oregon.
January, lb.	656,300	.....	1,700
February.....	810,500	.....	.....
March.....	1,275,700	.....	500
April.....	1,426,600	.....	300
May.....	1,546,800	.....	2,300
June.....	1,163,200	.....	200
July.....	952,900	.....	.....
August.....	1,184,100	.....	9,900
September.....	1,024,500	.....	1,200
October.....	653,500	.....	4,500
November.....	438,900	.....	2,200
December.....	368,500	.....	1,400
Totals.....	11,491,500	1,067,700	24,200
CHEESE.			
Months—	California.	Eastern.	Oregon.
January, lbs.	293,140	60,300	600
February.....	314,000	129,400	300
March.....	478,300	98,800	100
April.....	624,000	135,700	2,900
May.....	761,900	47,000	200
June.....	469,500	98,400	800
July.....	483,800	103,700	3,700
August.....	484,600	187,100	4,700
September.....	383,000	101,000	1,700
October.....	350,500	156,400	.....
November.....	392,100	274,000	500
December.....	211,500	249,700	1,300
Totals.....	5,146,400	1,672,500	16,800
EGGS.			
Months—	California.	Eastern.	Oregon.
January, doz.	102,774	213,720	.....
February.....	317,761	412,050	12,510
March.....	337,930	88,260	210

April.....	355,770	320,460	.....
May.....	263,234	414,030	.....
June.....	163,575	335,670	.....
July.....	218,529	310,200	510
August.....	184,425	202,560	900
September.....	111,855	345,630	660
October.....	144,045	351,980	1,800
November.....	175,995	457,860	.....
December.....	103,993	150,080	23,800
Totals.....	2,479,886	3,602,500	40,300

The receipts from California sources and from the East compare as follows:

BUTTER.			
California.	Eastern.	Totals.	
Pounds.	Pounds.	Pounds.	
1890.....	11,491,500	1,067,700	12,559,200
1889.....	11,098,600	4,325,000	15,423,600
1888.....	8,376,700	3,597,500	11,974,200
1887.....	9,547,100	783,600	10,330,700
1886.....	9,979,200	627,800	10,607,000
1885.....	8,019,600	494,400	8,514,000
CHEESE.			
1890.....	5,146,400	1,672,500	6,818,900
1889.....	4,272,000	1,155,200	5,427,200
1888.....	3,321,700	1,614,300	4,936,000
1887.....	3,989,400	968,400	4,957,800
1886.....	4,070,900	548,100	4,619,000
1885.....	3,657,500	471,000	4,128,500
EGGS.			
1890.....	2,479,886	3,602,500	6,082,386
1889.....	2,660,993	4,210,300	6,871,290
1888.....	2,210,015	3,168,741	5,378,756
1887.....	1,391,745	1,735,335	3,127,080
1886.....	1,663,200	2,192,900	3,856,100
1885.....	2,778,280	1,154,090	3,932,370

BUTTER.—Most excellent pasturage for the first six months of the year put the cows in the best of condition, causing large milkings and more cream to the pan. With an increased number of milch cows there was a liberal supply of butter, and notwithstanding more or less trouble in keeping the overland railroads open in January, the market drifted to lower figures and kept down well into the summer months. The grade of butter showed a decided improvement over former seasons. The number of cows in the State, according to county assessors' returns, compare as follows for the years 1889 and 1890:

	1889.	1890.
Thoroughbred.....	1,861	2,005
American.....	154,882	187,956
Graded.....	93,842	63,729
Common.....	8,339	8,880
Totals.....	258,915	262,570

Owing to the close competition with the creameries in the Central States, our dairymen are adopting all improved methods for bettering their products, and also to enable them to turn it out cheaper. Creameries have been established in several localities with unqualified success. These will, undoubtedly, be followed by the establishment of creameries in other parts of the State. It is found that farmers owning from two to ten cows, have better returns from creameries than where they make their own butter. Creameries are being established in Oregon and Washington with marked success.

The butter market opened the year fairly steady at a range of 12½ to 24 cents per pound for fair to gilt-edged. An easier feeling set in about the middle of January, closing the month at a range of 8 to 20 cents for fair to gilt-edged. In February, under free receipts, gilt-edged shaded off 1 cent a pound. The stock being large and heavy supplies to draw from, dealers were forced to seek outside outlets to work off the surplus. March witnessed still lower figures. The lowest scale of gilt-edged ever recorded in this market was made about the middle of the month. The consignment noticed was closed out at 14 cents. Owing to the low prices of dairy products and the high price of hocks in good condition, many dairymen were liberal sellers of cows. The low price of butter induced free packing, which created a firmer market, bringing about a slight advance in April. The range in this month was 8 to 16½ cents for fair to gilt-edged. The market in May hung around about April prices. It was kept down by forced sales, owing to bot weather and also to Central States creamery butter coming in. In June, packers and dealers bought quite heavily, cleaning up the market on several occasions, yet prices did not appreciate much. The market the forepart of July was weak, but began to strengthen about the 15th, closing the month quite strong at advancing figures. From this on there was a steady advance. The range soon went up to 15 to 30 cents, and before the end of the fall months a still higher range was established. By the end of the year, gilt-edged sold at over 40 cents a pound. The consumption in this State showed a large increase in 1890, while a light output in the Central States, causing higher prices, did away with the active low-priced competition witnessed in 1889. The year closed with comparatively light stocks.

CHEESE.—The market opened the year firm for mild at 11 to 12½ cents for choice. The market moved similar to butter, only the decline was not so rapid, yet it shaded off steadily. The lowest prices were touched the fore part of June, when the range for mild was 5½ to 7½ cents for good to gilt-edged. Toward the close of the month a stronger feeling set in, bringing about an advance in July. From this on, the market held strong, at slowly advancing figures, with only a few concessions noted at times. December saw stocks reduced to a lower point than for a long time past. This, of necessity, brought about higher prices—the range for mild being from 12 to 14½ cents for good to gilt-edged. More cheese was brought in from the Central States, but the higher market there necessitated an advance price for the cheese here, which helped to maintain the market for Californian. State creamery cheese has made

a decidedly favorable impression, consequently it finds a quick market with us.

EGGS.—Owing to snow blockades and bad inland roads, eggs advanced from 32½ to 42½ cents a dozen at the opening of the year to 37½ to 47½ cents for good to selected Californian. With the blockade raised by the 15th of January, prices broke 10 cents. The month went out on a weak market at 27½ to 35 cents. In February there were heavy receipts overland, which, combined with free supplies of Californian, caused the market to go down with a rush, for by Feb. 5th the range was 15 to 20 cents. In March a still lower range was reported; sales were made at 14 to 17 cents. The market fluctuated between this range and 17 to 20 cents up to July, when a better feeling set in, resulting in higher prices. From this on the market began to grow, but naturally it had at times setbacks. Overland receipts are an important factor in our market and do no little in regulating values, for no sooner do prices for Californian advance sufficient to warrant drawing from Utah, Kansas and Nebraska than buyers order by telegraph for carload shipments. The consumption in this State is increasing, and a fair to good market is always assured. Take the year 1890, for the first five months after January the price did not go above 20 cents, yet from July to January it did not fall below 27½ cents for choice, while several times eggs sold up to and even above 40 cents. It is safe to calculate on an average, the year round, on the basis of 25 to 30 cents a dozen.

Vegetables.

GARDEN TRUCK.—With better railroad facilities and smaller farms, gardening is enlarging. Many new gardens are being brought under cultivation, owing to the profits when properly managed. The East is a large consumer of our garden truck in the early spring months. The heavy rains and flooded condition of the ground in the winter months of 1889, combined with cold, frosty weather up to the spring months, kept vegetation backward, and it was well into May before garden truck began to offer freely. Previous to this, our main reliance for early vegetables was upon the southern counties. Green corn came to hand in January from E. J. Baldwin's ranch in Los Angeles county.

ONIONS.—The market was weak the fore part of January at from 60 cents to \$1.25 per 100 lbs.; but with lessening supplies and a fair demand, prices began to strengthen, resulting in a marked advance, being quoted at \$1.25 to \$2.75. With freer supplies, the market shaded off 25 cents a hundred the first week in February, but soon recovered, with quite an advance by the end of the month, when the range was \$1.25 to \$3.15. The market came in strong in March, with several sharp advances reported. By the middle of the month, choice good keepers sold at over \$5.25, or 5½ cents a pound. The high prices brought in freer supplies, which caused the market to shade off. In the first week in April, sales were made as low as 4 cents for extra choice; by the 15th they sold at 8 cents. In this month, consignments from Australia came to hand and were placed at 3 to 6 cents per lb. The month went out on a strong market, with 12 cents paid in a small way for the best selected good keepers. May came in on a strong market, with Australia sending us free shipments—all being readily placed. About the middle of the month, new came in on the market and were placed at 2 to 3 cents. From this on, new began to come in more freely, and owing to their relative cheapness, the trade gave them preference. The prices gradually settled until the normal ranges were reached in the summer months, from which time the market showed no material change until December. In this month, supplies began to lessen and the market strengthened. The year closed on a strong market, ranging from 1½ to 2½ cents.

POTATOES.—Large numbers of farmers, relying upon California's average winter weather, did not dig their potatoes, and as the rains set in early (October, 1889,) and continued with only short intervals of clear weather well into March and April, the majority lost fully one-half of their crop. Many who secured their crop were unable to make deliveries, owing to the almost impassable roads. These adverse influences were not confined to this State alone, for Oregon farmers suffered from bad weather. For the first three months of 1890 the market steadily but slowly appreciated until as high as 3½ cents per pound was paid for consignment parcels of extra choice on the wharf. The high prices here caused heavy shipments to us from the Central States—the first time for many years. In March and April the receipts from this source assumed large proportions, aggregating 36,813 sacks in March and 80,917 in April. In May they aggregated only 17,798 sacks, and with June they ceased entirely. High waters prevented early planting on lowlands, while on uplands the planting was delayed. In the southern part of the State there was large planting. With April and May, the receipts of new potatoes became an important factor, and as the receipts increased and sizes grew larger, prices began to set back; but at no time during the year did they fall to as low figures as the lowest ranges in either 1888 or 1889. This was due to a very large fall demand overland—the shipments Eastward aggregating larger than during any preceding year. In December the market began to show more strength, resulting in a slight advance, causing the year to go out on a strong market. Although the supplies in the State are large, they



are held for higher prices. In the southern part of the State digging of potatoes is being successfully and economically done with machinery. Receipts last year aggregate as follows: California, 1,071,183 sacks; Oregon, 88,797; Eastern, 149,044. Total, 1,308,024 sacks, against 1,326,202 in 1889.

**BEANS.**—The small stock carried over from 1889 was barely enough to meet requirements up to the new-crop season. This caused a strong and fairly steady market at good prices. The new crop was large and of good average grades. The East and Central States having light crops, afforded us a good market, to take advantage of which, heavy shipments were made. Trainloads were the order. There was one trainload (11 cars) of Lima beans alone—the first in the history of the State. The stock at the close of the year is light, hardly enough to meet trade requirements before the new-crop season. The year went out on a strong market for all kinds.

#### Deciduous Fruits.

The crop of 1890 was mixed, being from barely an average yield to the tree in apricots and prunes to a large yield in apples. The cherry crop was short, as was that of peaches; but that of plums was an average. Early in the year buyers began contracting for fruits, and as the season drew near, competition grew more pronounced. The buying was stimulated by confirmed reports of light crops at the East, particularly that of peaches. The competition in buying came from shippers, driers and canners. This (and also the range of prices) was enlarged on in a review of the industry published in the RURAL PRESS last November, to which our patrons are respectfully referred. According to the returns made by county assessors, the number of fruit trees in the State in March, 1890, was about 16,000,000—being an increase of over 20 per cent on the number returned one year before, yet this large increase did not yield enough fruits to meet the increased demand. The high prices received for fruits have stimulated tree and vine planting to an enormous extent. So large a proportion has the planting assumed, that many are seriously debating the question if it is not being overdone. Conservative growers and dealers think not. They argue that our peculiar diversified climate and soil are well adapted to the growing of the choicer kinds of each and every variety of fruit, and there is always a ready market for the best. While prices may not in the future yield so large profits, yet they will give the careful orchardist a good annual income.

#### Citrus Fruits.

The season of 1889-90 to growers was, taken as a whole, very profitable, although the consumption of oranges on this coast the first three months of the year was quite light and prices averaged low. This was due to cold weather and continued heavy rains causing more or less distress among laboring classes, owing to their being unable to work outdoors. With the worst of the winter past, the consumption began to enlarge, which was followed by better prices. The shipments overland to distributive points on this coast were very large, aggregating for the season about 3200 carloads. For the present season, the better informed place the shipments at a little over 4000 carloads. A very notable feature of the present season is the fact that the first carload shipments from the State were made during the last month from Oroville. Hitherto the crop of that section has been marketed in small lots, but this season several full cars have been sent East and more will follow. During the past five years there has been a large acreage of oranges planted in Butte, Placer, Yuba and the neighboring counties, and the young trees are now commencing to bear. There are also many small orchards of mature trees, which are heavily fruited and are supplying the carload shipments now being made. These shipments set at rest forever a great deal that has been said of a skeptical character with regard to the practicability of producing oranges on a commercial scale in the central or northern part of the State. Facts are stubborn things, and as the carloads of oranges from Oroville and elsewhere go rolling East, they afford an object-lesson of the most convincing kind to every unprejudiced person. More attention given by growers to cultivating and caring for the trees is having a healthy, stimulating effect upon the quality of the fruit. This speaks well for the future, for without its continuance the product would deteriorate and be hard to place.

Lemon culture is attracting more attention, now that orchardists have mastered the situation of properly gathering and curing the fruit. The profits are large.

Olive culture is making remarkable progress. The market for the fruit and its products is enlarging. The oil is second to none and is far superior to the large bulk of imported. Of course this applies to the oil produced by those who have given close attention to the proper methods for its manufacture.

#### Raisins.

The predictions made by the RURAL PRESS are being verified, that the raisin industry would steadily increase in importance and would eventually not only drive the foreign from the markets of this country, but will compete successfully for the better foreign distributive markets. Of necessity, packers must give close attention to the curing, selecting and packing of the fruit, so that the different

grades will be uniform in color, size and quality. There was a large increase in the number of vines that came into bearing in 1890 while the weather was favorable to the growing crop. The output of the vines was large and generally of excellent quality. The curing and packing was extended well into the year; the second crop, when not extended too long, was of uniform good quality; but the cupidity of several packers caused them to grasp all in sight and by packing too late, their last packing is said to have been poor. The pack in 1888 aggregated 1,104,000 boxes; in 1889, 1,237,500; and in 1890, taking returns from actual shipments and estimating from best obtainable sources—the stock still held, the pack aggregated as follows:

Counties.	Boxes.
Fresno.....	1,050,000
San Bernardino.....	510,000
Yolo.....	275,000
San Diego.....	175,000
Los Angeles.....	40,000
Sutter.....	17,000
Shasta.....	6,000
Yacoville.....	14,000
Marysville.....	17,550
Santa Clara.....	40,000
Sonoma.....	15,000
Merced.....	17,000
Ventura.....	10,000
Colusa, Tehama, etc.....	10,000
Total.....	2,197,493

Growers and curers who sold their product as soon as matured realized as a rule good figures fully up to those of former season, 5@6¢ per pound being paid for raisins of desirable quality in the sweat-boxes. That portion of the crop which was marketed from second hands early in the season (and most of the yield was then disposed of) brought moderately firm figures, close to those of the previous year, London layers (fancy packs about 250 a box above outside prices) going mostly within range of \$1.75@2 for whole boxes, with loose Muscatel selling up to \$1.75 per box for select, while prior to December there were few sales of loose Muscatel of most common grade under \$1.25 per box. During the last month of the year the market developed considerable weakness, partly owing to the season being well advanced, but to a very large degree due to the late depressed condition of the money market in the East and in Europe. There are more raisins on hand than at the corresponding date last year. The stock of well-known and favorite brands is not particularly heavy, and such will probably clean up at figures near to those established when the season opened, but the outlook for common sorts is not encouraging to the holding interest, as these have been lately going at decidedly irregular and in the main rather low prices, although at the close the stock appears to be cleaning up. The above remarks are for the most part concerning layer raisins and loose Muscatel. Seedless Sultanas were in exceedingly light supply this season and brought firm rates, sales being mainly at 7@8¢, and in some instances higher prices were realized. There were few California seedless raisins of any sort thrown on the market the past year. In the season of 1889, Sultanas were in more than ample supply and some had to be disposed of at figures which were not satisfactory.

#### Dried Fruits.

Dried fruits this season met with a good market at satisfactory, and in some kinds, high prices. The output was large and of a good average quality. The short crop of green fruits at the East brought to this coast strong buyers who, in their competition to secure dried fruits, ran prices well up.

**PRUNES.**—The yield to the tree was below an average, but the quality was better. The product of California prunes for 1890 is estimated from 600 to 900 cars. There are still some on hand, more than dealers generally care to see after the midwinter holidays. The market the past season started in at 6@7¢ while the prunes were still on the trees, and prices moved steadily upward until 10¢ was realized for the four sizes, and extra large were placed at 12½@13¢ in a small way.

**PEACHES.**—A short crop at the East, and high water in this State killing many trees, caused an early and active demand. Bleached in 1889 sold within 11@15 cents for unpeeled and 25@30 cents for peeled, the range on common sun-dried being 7@10 cents. This season the market opened at 15@17¢ for bleached unpeeled and rapidly advanced to 21 cents, with common sun-dried held up to 15¢. But the market soon receded from the above high figures, and lately has been lower than at the opening, with unpeeled bleached hardly quotable at 13@14 cents wholesale. Peeled peaches did not fluctuate correspondingly, selling early in this season, as in 1889, at 25@30 cents for bleached, but for the past month or more 25 cents has been about the utmost obtainable wholesale, although there are few remaining and there were not many of this sort on the market at any time. There were probably not to exceed 2400 tons of California dried peaches of all sorts in 1890, fully 2000 tons of which were unpeeled bleached, and it is doubtful if there were much over 100 tons of peeled.

**APRICOTS.**—The output to the tree did not average that of 1889, yet the increased number of trees bearing caused a slightly larger quantity. The 1890 output is estimated at a little over 3000 tons. Prices were better than for 1889, evaporated the current season selling from 13 cents in sacks up to 20 cents in boxes, and sun-dried going at 10@14 cents, while previous year 12½@15 cents and 8@10 cents were

the ranges respectively for evaporated and sun-dried.

**PLUMS.**—Pitted plums brought high prices under a light output, commanding 10@13 cents during a great portion of the season, as against 5@7 cents in 1889. There are few now offering and very few wanted, even at decided concessions from figures which were lately current. Unpitted plums were very little sought after, either the past or previous year, but ruled higher the past season than the preceding one, being quotable at 3@4 cents as against 1½@2½ cents in 1889. Less than 250 tons of dried plums were turned out of last crop, over two-thirds of which were pitted.

**NECTARINES.**—The crop was light and the quantity dried was below that of 1889, being only about 200 tons. White sold well at 10@13 cents, while red dragged at 7@9 cents. The former year, white went at 8@10 cents and red at 6@8 cents. This fruit is slowly growing in favor.

**APPLES.**—The low prices of 1889 caused less to be cured in 1890. The good prices ruling for the green fruit caused larger selling in that state. The quantity dried is estimated at 400 tons. Evaporated have sold from 10@12½¢, and sun-dried mainly at 6½@7½¢. During the preceding season, prices were 8@9¢ for evaporated and 3½@4½¢ for ordinary. Pears were not dried extensively, the entire quantity probably not being in excess of 100 tons. The demand was limited and prices were irregular, some common quartered dragging at 5@6¢, while sales of sliced and evaporated in boxes up to 12½¢ were rather exceptional.

**FIGS.**—The quantity and quality are steadily gaining. Well-known brands are not only readily placed, but are growing in favor wherever introduced. The pack is estimated at 100 tons. While some brands fetched higher figures, average white of good to choice quality sold at 8@10¢, but black did not meet with active request, going at 2½@3½¢ in sacks and 4@6¢ in boxes, as to grade and other conditions.

**DRIED GRAPES.**—This industry is enlarging and the products growing in favor. The quantity produced in 1890 is believed to be not less than 4000 tons. There was extensive business within range of 3½@3¾¢, and in some instances, to cover urgent needs, 4@4½¢ was paid, but 3½¢ has been lately the extreme of the wholesale market. In 1889 the top figure was 3 cents.

#### Nuts.

More attention is being given to the cultivation of nuts, and all the best improved varieties are being successfully cultivated. The crop of 1890 was of excellent quality, there being very few complaints of poor nuts. The crop of walnuts in 1890 was much superior in quality to that of 1889. Prices have ranged from 8@9¢ for small nut and hard-shell up to 12@13¢ for large and select paper-shell. All walnuts of the last crop are well matured and have white meat. The almond crop was not a heavy one, and prices were on a rather high plane, with quotable rates from first hands 15@16¢ for paper-shell, 13@14¢ for soft, and 5@6¢ for hard-shell. The market has not been hardened with offerings at the above figures, especially of paper and soft-shell. Peanuts have never been produced in larger quantity in this State than during the past season. Over 7000 sacks have been received at this center, and stocks at producing points are not exhausted. Prices have been rather favorable to the growing interest. Early sales were effected as high as 7¢, and some few transfers were made down as low as 4¢ for common quality, but the market for several weeks past has been moderately firm at 5 to 6¢ for good to choice. Shipments of all sorts of nuts outwardly by rail over the Southern Pacific railroad aggregated for the year 1,500,000 pounds, fully 75 per cent of the entire amount going from the southern part of the State.

#### Canned Fruits.

No statistics are obtainable for 1890, but the pack was in excess of any previous season. The following covers the situation as gleaned from Col. Outler, president of the Canning Packing Co.:

"The fruit season here begins in May and ends in November. Stocks carried over last spring were rather large; more so than usual, and prices were the lowest known for a great number of years. Prospects then were not very good. Travelers, however, made a great many sales in the East, but at very low prices, based on those ruling during the preceding winter and during the last half of 1889. The Eastern crop of fruit at that time, and up to July 1st of 1890, promised fairly. There was no occasion for any feeling that there would be an advance in values, either of California green or canned fruit. In July, however, it became apparent that the Eastern fruit crop was a failure, and from that time till October the prices of California fruit of every variety, that is to say, green, dried and canned, appreciated in value from 50 to 200 per cent. Under these circumstances the shipments of fruit were of course larger than had been expected, particularly those of green fruit. As a consequence the values of all three of these preparations of California fruit increased very heavily. Unfortunately, this did not assist canners very much, for they had sold largely in advance before the rise in green fruit was known, and as they had failed to contract for their green fruit, of course they had to pay high prices without reaping any benefit from the advance in the manufactured article. Consequently the season

as a whole has not been a prosperous one for canners. The amount of fruit used and the volume of the pack is probably larger than in any year since 1887. The prospects for next year are that the Eastern crop will resume its normal condition and be a large and good one, also that the prices of the California product will be raised for all kinds of fruits in whatever shape they are put on the Eastern market. The ordinary stock of canned fruits is very large, both here and throughout the State, but in view of the Eastern crops for another year the prices will not sympathize with the scarcity. The domestic trade at present is very dull, and will continue so till February, if not March. The foreign trade for California fruits has been very good during the entire season, and the prospects are that the demand will continue good. If the quality is better than Eastern fruit, and the article is nicely prepared, it goes to the foreign consumer at fair prices and in considerable quantity."

#### Hay.

The rains in the winter of 1889-90 gave most excellent pasturage well into the summer months. They also were productive of a larger yield of hay. Although the crop was large, yet it went into consumption at high prices. The range of values throughout 1890 was remarkably steady. Gilt-edged wheat in this city did not go above \$18.50 when the scarest, and did not fall below \$17.50 when most plentiful, if we except some forced sales in the early part of the season. The increasing attention given to horticulture is causing a large yearly feeding of hay. More attention is being given to the growing of alfalfa. The sales of the seed this year were very large, which is a true index of a larger acreage seeded. The outlook for the crop this year is promising. Many more fields have been seeded to grain to be cut for hay.

#### Live-Stock.

The severe winter of 1889-90 in this State and also in Nevada killed large numbers of cattle and sheep. In the latter State the loss was fully 40 per cent. The high price of feed and fears of losing stock caused a large selling pressure, yet at times prices were advanced to good figures owing to bad roads and the suspension of railway travel by floods and snow. Arizona sent us large supplies of bullocks, when dealers advanced prices in January and February. With these liberal receipts and supplies to draw from, the market in March and April shaded off at slightly fluctuating prices. In the summer and fall months, bullocks ruled at low prices, but sheep held strong, corn advancing owing to warm weather causing butchers to run on them. With the winter months, bullocks strengthened, as did sheep. The latter advanced quite rapidly under a strong buying in the interior by farmers who wish to keep a few head on their places, the same as is done by farmers at the East. Of course they will breed chiefly for the carcasses. Hogs ruled high and strong throughout the spring months. With warm weather, large hogs were slow and hard to place, but light hogs for the block were wanted. The prices ranged from ½ to ¾ cent below spring prices. In the fall months the market began to strengthen, and toward the close of the year the spring prices were realized by sellers. The establishing of a large packing establishment in Contra Costa county by a moneyed corporation will do no little in placing the cattle, sheep and hog industry of this coast on a healthy footing.

Don't experiment with your health. You may be sure of the quality of your medicine, even if you have to take much of your food upon trust. Ask your druggist for Ayer's Sarsaparilla, and no other. It is the standard blood-purifier, the most effective and economical.

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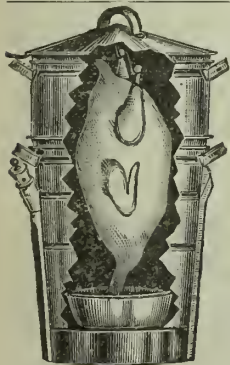
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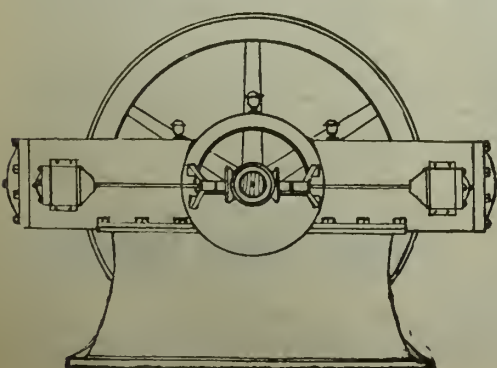
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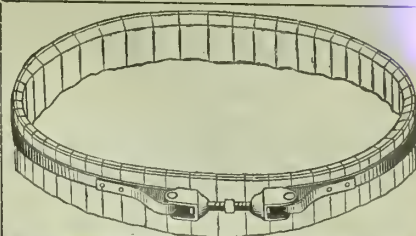
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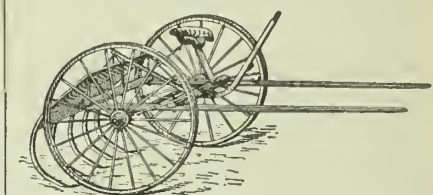
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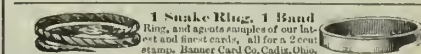
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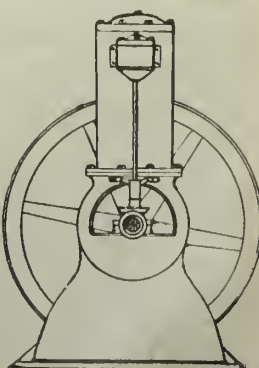


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## AGRICULTURAL NOTES.

## CALIFORNIA.

## Alameda.

**RAISE IN RATES.**—Livermore *Herald*, Jan. 17: The Southern Pacific Company has issued a new hay schedule which practically raises rates twenty per cent. The twenty-eight foot car, which has been rated at ten tons, minimum, is now placed at eight tons. The rate on such car from Livermore to San Francisco is \$14.40. The rate per ton has therefore been \$1.44. It is now really \$1.80, and all weight over eight tons is charged at that rate. Larger cars are rated in proportion. This is a straight raise in rates of 36 cents per ton. Our warehousemen are merely charging the difference to San Francisco buyers, at present. What they will do next summer, when they become buyers, remains to be seen; but the farmers will be called upon to make up the difference. At present, hay is in active demand at very high rates, and the consumers must stand the raise.

## Butte.

**A NEGLECTED FRUIT.**—Marysville *Appeal*, Jan. 15: When Col. Irish was making the rounds of the fair the other day he called attention to the merits of the pumalo, a fruit of the citrus family. In Florida it is known as the grape fruit, and is largely consumed. It is esteemed for its refreshing and bigly flavored acid juice. With the addition of a little sugar to counteract the excessive acidity, most persons find the pulp of this fruit very grateful. The juice may be employed as lemonade. Here no use is made of the pumalo, but it will probably come into favor when people learn how to use it. In the South it is esteemed valuable in fevers and as a preventive of malarial disorders.

**THE BIG BEND CANAL.**—Palermo *Progress*, Jan. 16: We learn that a company is being formed, of which Dr. R. V. Pierce is president, for the purpose of building this canal along the foothills from the Feather river to Honcut. This canal will be of untold benefit to all the foothill land in the neighborhood of Wyandotte that can be irrigated by it, and to the land around Honcut, which is the ultimate destination of the canal. This company has about 10,000 acres of fine land which will be subdivided and placed on the market and will furnish homes to thousands of families who are interested in fruit-growing. Nearly the whole of Eastern Butte county south of the Feather river will be amply provided with water. Palermo already having a great abundance stored in three or four large reservoirs and the above canal supplying the county south of us, we shall soon be one of the great fruit-growing sections in the State. We wish our neighboring towns success, as these enterprises benefit not only their immediate vicinity but the entire country surrounding it.

## Fresno.

**WHEAT SHIPMENTS.**—Fresno *Expositor*: The shipments of wheat from Fresno City during the season of 1890 were as follows: To Port Costa, 31,643 575 pounds; to Stockton, 1, 604, 140; to Los Angeles, 6,788,215; to San Francisco, 150,550; to Sacramento, 44,000; to Oakland, 274,270; to local points, 455,690. Total, 40,956,457. Of barley, to all points, 1,665,455. Total grain shipments, 42,269,121 pounds.

**THE WOOL CLIP.**—*Expositor*, Jan. 14: The herds of sheep that at one time ranged over the Fresno plains have been gradually decreasing in number since the advent of what may be termed the new era in the development of the resources of the soil. Notwithstanding the large decrease, this county still takes rank among the first in the production of wool. The clip of 1890 was almost equal to that of 1889, and the price a shade better. So far as the most reliable statistics that can be gathered from dealers in this county, and from the railroad agents, it was about 5,000,000 pounds.

**A MEDAL FOR RAISIN DISPLAY.**—Fresno *Republican*, Jan. 16: The Fresno Fair Association at its fall exhibition, 1890, awarded to Ben R. Woodworth a gold medal for the display of raisins. They had a medal engraved and have presented the same to Mr. Woodworth. It measures about three inches in diameter and is handsomely engraved. On one side is a reproduction of Mr. Woodworth's fine vineyard and home, with the inscription, "Las Palmas Vineyard, Ben R. Woodworth." On the reverse side is the following: "Awarded by the Fresno Fair Association for the best Exhibit of Raisins, October, 1890."

## Humboldt.

**EDITORS PRESS:**—So far, we have had a delightful winter, and stockmen are beginning to recover from the effects of last winter. Stock is in excellent condition with every indication of a light loss. Owing to the large number of dairy calves that were bought up in the valleys a year ago and taken to the hills (nearly all of which died last winter) but few were driven out of the valleys this last fall, but those which were taken out are in such good flesh that they will surely be able to endure any reasonable amount of exposure for the next two or three months. A person buying these calves at from \$5 to \$7 can more than double this money the first year, if they succeed in saving all of them. The Alder Point bridge, across Eel river, has just been completed at a cost of \$35,000, and is a substantial structure. There is talk of a wagon-road being extended from Bridgeville,

on the overland road, to Hay Fork, Trinity county, to open a through road to Red Bluff and the Sacramento valley.—ALERT.

## Kern.

**CROP PROSPECTS.**—Delano *Courier*: If the season's rainfall is sufficient (and it is very promising now) there will be an enormous amount of grain reaped from the plains along the foothills to the eastward. Extending from White river to Deer creek, the level plains will be one vast grainfield, and south from White river to Poso thousands of acres have been turned over and put to crop.

## Los Angeles.

**HARVESTING ORANGES.**—Downing *Champion*, Jan. 17: Mr. Sresovich has contracted for the greater portion of the orange crop in this immediate vicinity, and is now busy with his crew relieving the orchards of their ripest fruit, and making shipments of the same. Six carloads have already gone forward, mostly to the San Francisco market, to be followed by a carload every second day during the season. Mr. S. assures us that the crop is the finest in quality that he has ever seen in this vicinity, being perfectly bright and clean and good sizes. He is at present taking from the trees the ripest fruit. By his method of gathering, the trees are immensely benefited, as by being relieved of the bulk of the fruit early in the season the trees are in better condition to blossom for another season's crop. Mr. S. is of the opinion that the early market will realize the best prices.

## Merced.

**A BUCHACH PLANTATION.**—Merced *Star*: The work of gathering and drying the buhach blossoms is in full blast at the buhach plantation. About one hundred men are scattered through the fields picking the blossoms. As fast as they are picked they are stowed away, about two inches deep, in wooden boxes, which are two and a half feet square. Wagons are employed in hauling the boxes to the drying-house. The sun's rays come down within the inclosure of big poplar trees with a force that makes it pleasant to stand from under. The trays are allowed to lie there, the blossoms being stirred up by a force of men until they (the blossoms) are fairly oiled. Afterward they are placed on a large platform about sixty feet square, where they remain until dry, and then are sent to the reduction works, where they are ground into dust. This is done by men who are proof against sneezing, otherwise it could not be done at all.

## Monterey.

**THE SEASON.**—Editors *Press*:—We had a fine shower on the 4th inst. Farmers say the ground is in good condition to work. There will be a large acreage sown, but we will need much more rain to mature the crop, as the rainfall has been very light to date. We are having clear, frosty nights, and warm, bright days.—L., Soledad.

## Plumas.

**FARMERS PLOWING.**—Crescent Mills, Jan. 10: Our farmers have been plowing and seeding, and will keep at it as long as the weather permits.

## San Benito.

**VEGETABLES AND FRUIT.**—Hollister *Free Lance*, Jan. 15: San Benito county contains very rich, moist land just suitable for growing vegetables. There are several small farms in the county, owned principally by Italians, who pay particular attention to this industry, and who are reaping very profitable returns from their labor. Yet these vegetable ranches are totally unable to supply even the local demand at Hollister for vegetables and small fruits. There is an excellent opening here for a number of men to locate who understand the culture of choice vegetables, strawberries, raspberries, currants, etc.

**DAIRYING.**—Hollister, Jan. 15: The San Justo dairy, the property of Flint, Bxby & Co., employs a large force of men the year round, and sends to the city immense shipments of cheese which commands the biggest market-price. There are also other dairies at San Felipe, San Juan and Quen Sabe, besides many smaller ones throughout the southern portion of the county. The business is not conducted on such a large scale as it should be, and with the facilities that we have in the Hollister valley for raising alfalfa and other green feed the year round, a large amount of capital can still be profitably invested here in the dairy business.

## Santa Clara.

**FRENCH PRUNES IN SARATOGA.**—Gilroy *Gazette*, Jan. 13: A *Gazette* reporter has been making a trip around the Saratoga fruit district and reports orchards there as looking very finely. A very large amount of land is being converted from grain and pasturage to fruit and vines. The principal planting is of prunes of the French variety. The best-informed orchardists state that in moist land the Myrobian root is preferable, but if the land is tolerably dry and free from overflow, the almond root is far the best. From 275 trees on the latter, Mr. Russell gathered 20 tons of green prunes, which he sold at \$45 per ton, a result for a little over two acres of \$900. This gentleman, finding that his trees overlapped their branches and broke them from the tree trunk from the weight of the fruit, has adopted a novel but perfectly satisfactory device for the prevention of such mishaps, by boring at the point where the limb branches from the trunk a five-eighths inch hole and placing therein an iron bolt fastened by a nut. This is covered

in two years by the growth of the tree. His trees so treated have not sustained any further breakage of limbs or trunk, although the former have been laden heavily with fruit.

## San Diego.

**LARGE OLIVE YIELD.**—S. D. *Union*, Jan. 15: A big portion of this region's olive crop has been purchased for the Frank Kimball olive-oil mill at National City, including those from the orchards of Major Chase, the Cowles, Flynn, Geeler and Ames places, all in Cajon valley. Mr. Kimball says that they are all Mission olives, excepting some Picholines in the Cowles crop. These have a large pit and a small amount of flesh, and consequently less oil than the other variety. He has also purchased R. C. Allen's crop from the Upper Sweetwater. The trees Mr. Kimball sold him in March, 1888, and they were then less than two years from the cuttings. The best of these are now yielding a barrel of olives to the tree. The bottle order for the factory last year was 12,000, and now 48,000 bottles have been contracted for. Crushing is in progress, and to-day filtering for sample bottles will be begun, chemical paper being used to enable them to be ready soon. The filters will not be in use for at least 50 days.

**FARM NOTES.**—Bernardo *Cor. San Diego*, Jan. 13: O. Oaks has about 450 acres sowed to wheat. Win Smith is making arrangements for putting out a 25-acre vineyard and several hundred fruit trees. John Haessler is getting ready to put out 1500 fig cuttings, 100 prune trees and several hundred other trees.

## San Joaquin.

**TREE AND VINE PLANTING.**—Lodi *Sentinel*, Jan. 17: Cecil D. Walter has been kept busy the past two months planting and making preparations to plant for different parties large acreages of orchards and vineyards in the vicinity of Lodi. From Mr. Walter the following planting news was gleaned: H. B. Barkis, foreman in Sperry's mill of Stockton, is planting 30 acres on the Tillmudge tract, two miles from Lodi, to assorted fruits. Edwin F. Smith, Secretary of the State Agricultural Society, who two years ago planted 40 acres of apricots adjoining the Langford colony, is this year planting 40 additional acres to prunes. Leroy Pope is putting out 40 acres in the Elliott tract two miles east of Lodi. John Theden, who purchased 10 acres of T. W. Boalt in the Gersten tract a few days ago, has bought 10 acres adjoining and is making arrangements to plant 20 acres to vines. A Mr. Holland, recently from Kansas, has purchased 10 acres on the Tom Pope place, and will set it out in assorted trees this spring. Many more are planting or contemplating planting this season, which, together with the large acreage that will be planted in Langford colony, will make a good showing at the end of the season.

## San Luis Obispo.

**GOOD PRICES FOR STALLIONS.**—San Miguel *Courier*, Jan. 15: G. W. Fowler and J. N. Watson have sold a 3-year-old Clydesdale stallion to Webb & Van Gordan at Cambria, for \$1700. They sold a 2-year-old Clydesdale stallion to Roes & Labman at San Lucas, for \$1500. Mr. Fowler will keep one of the Percheron stallions at San Miguel.

**WHEAT-SEEDING.**—Adelade *Cor. San Miguel Messenger*, Jan. 16: Farmers are getting along very well, though seed wheat seems to be rather scarce in this neighborhood. If some large wheat-owner could only be induced to loan the small farmer wheat for seed and take his pay for it on shares, we feel sure that there would be a large harvest this year. I have just returned from a short visit to Dry Creek, Paso Robles and vicinity. Every farmer I met seemed determined to seed all his land in wheat. Some farmers are renting all the land that they can work. In passing over the country of Dry Creek, Estrella and Huer Huero, I find that in 10 or 12 miles square there are about 100 men who will seed from 100 to 2000 acres each. Jos. Moody will seed about 2000 acres, with several others doing the same.

## Sutter.

**PLANTING WILLOWS FOR LEVEE PROTECTION.**—Yuba City *Farmer*, Jan. 16: The commissioners of Levee District No. 1 have been planting willows along the levee near the Bunce place, below town, to protect the levee from the heavy wash of the water. Four rows about half a mile in length have been planted, which in time will form a good bulwark to the embankment.

**FLEMING CANAL.**—Biggs *Argus*: A full corps of surveyors is now at work on what has hitherto been known as the Fleming canal, and we may expect active work on the canal from now on until the ditch is completed. This canal, which will divert a large body of water from the Feather river at a point about four miles south of Oroville, will work a grand development in the southern part of Butte county. Thousands of acres of land hitherto used for cereal-growing purposes will be made to grow the finest of alfalfa and all the fruits that can be grown in any other portion of the State. All that land for miles in extent to the Buttes in Sutter county will soon be under irrigation and enhanced in value millions of dollars.

## Tulare.

**FIRST ORANGES GROWN.**—Traver *Advocate*, Jan. 15: The first orange tree in bearing in this vicinity that we have seen is on Mr. Richardson's colony tract, about a mile north of Traver. The tree is young and small, but the fruit is of average size and presents an attractive appearance, it being ripe and surrounded by dark-green leaves. The tree stands out in front of Mr. R.'s residence and is unprotected from frost, but it does not show the least signs of frost blight. A young orange tree in C. H. Williams' garden, in Vina colony, also had one orange on this year.

**WILD GEESSE AND GRAIN-FIELDS.**—Tulare City, Jan. 14: Wild geese are so destructive in the wheat-fields in the Buzzard Roost country, west of Tulare City, that some of the farmers there hire men to do nothing else but shoot them. E. W. Kay has hired a man for that purpose for several weeks, as the geese were getting away with the seed on 900 acres.

**GRAIN SHIPMENTS.**—Traver *Advocate*, Jan. 15: From this place 14,349,080 pounds of wheat and 754,980 pounds of barley were shipped during the year. This, with 35,000 sacks of the cereals remaining in H. Brownstone's warehouse, 1500 in the 76 warehouse and 20,000 in the Traver warehouse, makes a total of 23,014,000 pounds of grain as the cereal product of this vicinity for the year 1890.

**EXTENDING THE DITCHES.**—Traver, Jan. 15: At a meeting of the Alta District directors, surveys were ordered made for an extension of the Reed ditch from its present end near the county line, west, to cover 3000 acres of the Clarke land north of what is known as the old Clarke ditch. Another survey was also ordered for a ditch to branch off from the Traver branch of the 76 canal, west of the railroad track, to cover 12 or 14 sections of land west of Traver and in the southwest corner of the district. The necessary size of the ditches is to be estimated by the survey.

## Yuba.

**AN ORANGE-GROWER'S EXPERIENCE.**—Marysville *Appeal*, Jan. 18: Mr. Hutchins is a strong advocate of budded fruit and recommends its extensive planting. It begins to bear the first year, and in five years is in good bearing. He says few men care to wait the six years required for seedlings to bear. "Of course," said he, "the budded fruit is not so hardy as seedlings, but it will stand any ordinary winter. During the last 30 years we have had only one cold spell which would injure the trees, and then large trees did not suffer. My experience leads me to believe that the budded fruit is the kind to plant." Mr. Hutchins also advocates wrapping. He would wrap trees till they are two years old. He believes the trees would be as hardy or more so, and there is little danger of injury from cold weather. During the cold spell of three years ago, some of his budded trees suffered. He says if he had wrapped them he believes they would have come out all right. His young orange orchard has made an excellent growth and is in fine condition.

## NEVADA.

**REDUCTION IN HAY FREIGHTS.**—Reno *Gazette*, Jan. 15: The Southern Pacific Company has given Reno and Lovelock a still further reduction on hay to San Francisco. The rate now on a 28-foot carload is \$24; the old rate was \$30; and on a 34 foot car it is \$30; the old rate was \$37.50. This is a rate of about \$3 per ton, and if our people cannot ship hay at a profit now, it is certainly not the fault of the railroad company, for they have tried hard to please the people in the matter, and are deserving the thanks of this community. The new rate goes into effect to-morrow.

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Are always liable to sudden and severe colds, to croup, sore throat, lung fever, etc. Remedies, to be effective, must be administered without delay. Nothing is better adapted for such emergencies than Ayer's Cherry Pectoral. It soothes the inflamed membrane, promotes expectoration, relieves coughing, and induces sleep. The prompt use of this medicine has saved innumerable lives, both of young and old.

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## Strangling.

It had nearly ceased to breathe. Realizing that the child's alarming condition had become possible in spite of the medicine it had taken, I reasoned that such remedies would be of no avail. Having a part of a bottle of Ayer's Cherry Pectoral in the house, I gave the child three doses, at short intervals, and anxiously waited results. From the moment the Pectoral was given, the child's breathing grew easier, and in a short time it was sleeping quietly and breathing naturally. The child is alive and well to-day, and I do not hesitate to say that Ayer's Cherry Pectoral saved its life."—C. J. Wooldridge, Wortham, Texas.

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## SEMI-ANNUAL STATEMENT OF THE GRANGERS' BANK OF CALIFORNIA.

Amount of Capital actually paid in U. S. Gold Coin, Surplus paid up and Reserve Fund..... \$306,817 56

STATE OF CALIFORNIA  
City and County of San Francisco. }  
A. D. Logan and A. Montpellier, being each duly sworn, severally depose and say that they are respectively the President and Cashier and Manager of the Grangers' Bank of California, above mentioned, and that the foregoing statement is true.  
(Signed) A. D. LOGAN, President,  
(Signed) A. MONTPELLIER, Cashier and Manager.

Subscribed and sworn to before me this 19th day of January, 1891.  
(Signed) JAMES L. KING, Notary Public.

## SEMI-ANNUAL STATEMENT SHOWING THE ACTUAL CONDITION OF THE GRANGERS' BANK OF CALIFORNIA. AND THE VALUE OF ITS ASSETS AND LIABILITIES

At the Close of Business December 31, 1890, viz:

### ASSETS:

Loans on wheat, real estate and other securities.....\$2,099,154 53  
Due from banks and bankers..... 2,031 64  
Real Estate..... 32,877 39  
Office furniture, fixtures and safe..... 7,500 00  
Cash on hand..... 204,239 91

Total.....\$2,345,803 47

And said assets are situated in the following counties in the State of California, to-wit: Alameda, Butte, Contra Costa, Colusa, Fresno, Merced, Monterey, Placer, Stanislaus, Sutter, Solano, City and County of San Francisco, Tehama, Tulare, Yuba and Yolo.

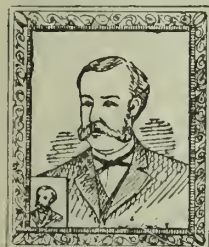
### LIABILITIES:

Capital stock paid in U. S. Gold Coin..... \$700,000 00  
Surplus paid up and reserve fund..... 106,817 56  
Due depositors, banks and bankers..... 1,449,378 91  
Interest and exchange..... 89,607 00

Total.....\$2,345,803 47

STATE OF CALIFORNIA,  
City and County of San Francisco. }  
A. D. Logan and A. Montpellier being each duly sworn, severally depose and say that they are respectively the President and Cashier and Manager of the Grangers' Bank of California, above mentioned, and that the foregoing statement is true.  
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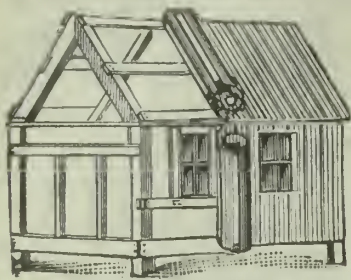
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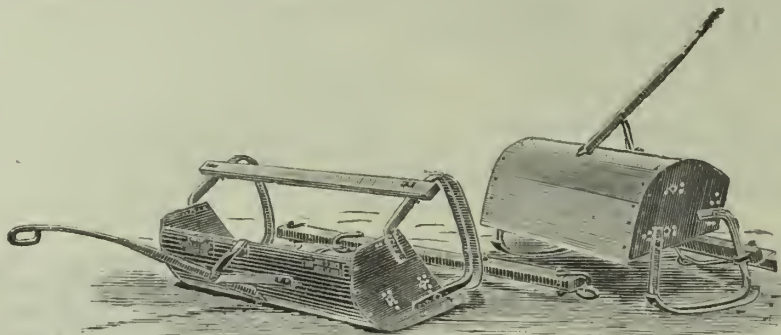


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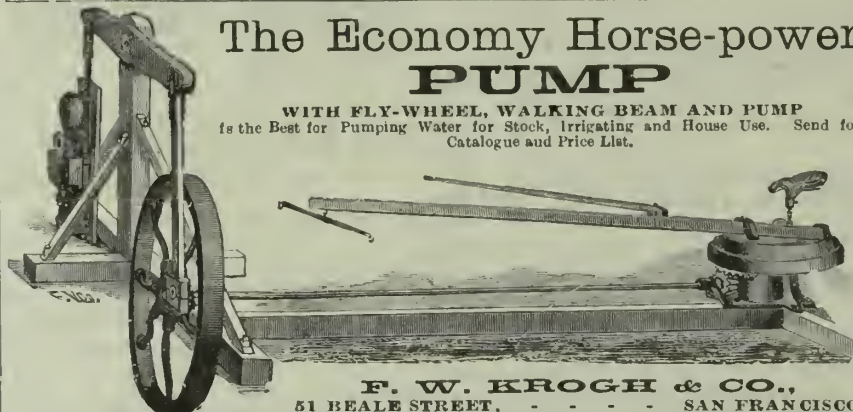


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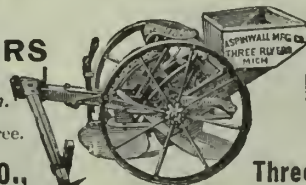
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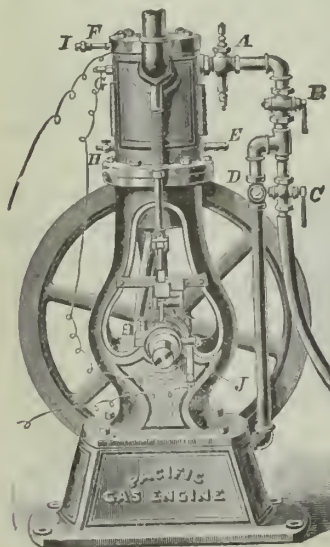
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Citrus-Fair Awards.

On Friday afternoon, Jan. 16th, the following report was submitted to the Executive Committee of the Northern Citrus Fair, at Marysville, by Frank Dalton, D. H. Porter and Robert Williamson, who constituted the Committee on Awards:

CLASS 1—BEST EXHIBIT OF CITRUS FRUITS IN ONE COUNTY—Butte county, \$200; Yuba, \$150; Sutter, \$100; Placer, \$75.

CLASS 2—Largest and best exhibit of Washington Navel oranges by one grower. Exhibit to contain not less than 2000 oranges. Oroville Citrus Association of Thermalito, \$200.

CLASS 3—BEST EXHIBIT OF WASHINGTON NAVAL ORANGES—D. N. Friesleben, Oroville, \$50; S. J. Bruton, Thermalito, \$30; E. B. Ward, Thermalito, \$20.

CLASS 4—BEST EXHIBIT BUDDED ORANGES OTHER THAN WASHINGTON NAVELS—C. M. Silva, Newcastle, \$25; Oroville Citrus Association, Thermalito, \$15; Mrs. A. F. Jones, Oroville, \$10.

CLASS 5—BEST 12 BUDDED, EXHIBITED AND GROWN BY ONE PERSON—Mrs. A. F. Jones, Oroville, \$10; Oroville Citrus Association, Thermalito, \$9; J. C. Boyle, Palermo, \$8; Mrs. Mary Karr, Marysville, \$7; C. B. Kimball, Marysville, \$6; E. B. Ward, Oroville, \$5; Mrs. C. N. Jenkins, Marysville, \$4; S. J. Bruton, Thermalito, \$3; Geo. Peters, Thermalito, \$2; G. W. Hutches, Marysville, \$1.

CLASS 6—BEST EXHIBIT SEEDLING ORANGES—James O'Brien Jr., Smartsville, \$100; Excelsior M. & W. Co., Smartsville, \$75; Mrs. Mary Karr, Marysville, \$50.

CLASS 7—BEST DOZEN SEEDLINGS BY ONE GROWER—W. A. O'Brien, Smartsville, \$10; Jas. O'Brien Jr., Smartsville, \$9; Mrs. R. C. Kells, Yuba City, \$8; Mrs. A. F. Jones, Oroville, \$7; Geo. Jeffrey, Smartsville, \$6; D. C. McGanney, Smartsville, \$5; J. K. P. Elwell, Yuba City, \$4; D. K. Perkins, Oroville, \$3; New England Orchard, Marysville, \$2; Chico Board of Trade, Chico, \$1.

CLASS 8—BEST DISPLAY LEMONS.—Mrs. S. S. Rogers, Marysville, \$50; S. S. Bruton, Oroville, \$30; Mrs. Mary Karr, Marysville, \$20.

CLASS 9—BEST DISPLAY LIMES.—There were no entries that were considered limes by the committee.

CLASS 10—BEST DISPLAY SHADDOCKS AND PUMALOS.—E. Tucker, Oroville, \$5; Mrs. Conit, Marysville, \$3; D. E. Knight, Marysville, \$2.

CLASS 11—BEST DISPLAY OLIVES.—Mrs. Emily Robinson, Auburn, \$20; California Nursery Co., Niles, \$10; John C. Gray, Oroville, \$5.

CLASS 12—BEST DISPLAY PICKLED OLIVES.—Mrs. Emily Robinson, Auburn, \$10.

CLASS 13—BEST DISPLAY OLIVE OIL.—Mrs. Emily Robinson, Auburn, \$50; George S. Cooley, Marysville, \$25; James O'Brien, Jr., Smartsville, \$15; John O. Gray, Oroville, \$10; John Bidwell, Chico, \$5.

CLASS 14—BEST EXHIBIT PERSIMMONS.—Mrs. S. S. Boynton, Oroville, \$5; P. V. Veeder, Grimes, \$3; Mrs. Emily Robinson, Auburn, \$2.

CLASS 15—POMEGRANATES.—Dr. R. Parker, Oroville, \$3; Chico Board of Trade, Chico, \$2.

CLASS 16—BEST DISPLAY RAISINS.—L. H. Cary, Auburn, \$100; D. A. Jackson, Woodland, \$75; J. P. Onstott, Sutter county, \$50; S. H. Raub, Meridian, \$25; Colmena Colony, Marysville, \$10.

CLASS 17—BEST DISPLAY OF DRIED FIGS.—H. E. Parker, Penryn, \$25; Mrs. R. Keck, Yuba City, \$15; G. W. Hutchins, Marysville, \$10; White Adriatic, Mrs. A. B. Van Arsdale, Yuba City, \$20.

CLASS 18—BEST DISPLAY OF PRUNES.—C. N. Tharsing, Yuba City, \$50; D. A. Jackson, Woodland, \$25; G. W. Hancock, Sacramento, \$10.

CLASS 19—BEST DISPLAY OF DATES.—J. Smythe, Newcastle, \$5.

CLASS 20—BEST GENERAL EXHIBIT OF DRIED FRUITS OTHER THAN RAISINS.—C. N. Tharsing, Yuba City, \$100; Sutter Fruit Co., Yuba City, \$75; W. N. Graves, Chico, \$50; Mrs. R. Keck, Yuba City, \$25.

CLASS 21—BEST EXHIBIT OF CANNED AND PRESERVED FRUITS EXHIBITED BY OTHERS THAN PACKERS.—Mrs. Clara Pratt, Yuba City, \$15; Colusa County Horticultural Society, \$10; Mrs. Gee, Marysville, \$5.

CLASS 22—BEST GENERAL EXHIBIT OF NUTS.—C. N. Tharsing, Yuba City, \$15; Chico Board of Trade, Chico, \$10; Colusa County Horticultural Society, of Colusa, \$5.

CLASS 23—BEST EXHIBIT OF NURSERY STOCK, Oroville Citrus Association, \$25.

CLASS 24—BEST EXHIBIT OF POTTED PLANTS AND FLOWERS.—Mrs. R. C. Kells, Yuba City, \$10; C. N. Tharsing, Yuba City, \$5; Mrs. W. H. Lee, Yuba City, \$2.

CLASS 25—BEST PRACTICAL ESSAY ON ORANGE CULTURE.—Emory E. Smith, associate editor of the California Fruit Grower, S. F.

CLASS 26—BEST GENERAL DISPLAY OF WINES BY MAKER.—G. Ssiber, Marysville, \$50.

CLASS 27—MOST ARTISTIC DISPLAY.—Mrs. S. S. Boynton—the Oroville Chinese Pagoda, \$50.

SPECIAL AWARDS.—Yuba county, Holland Watermill, \$10; Smartsville, Moorish Castle, \$10; Peter Engel, Artificial Swan, \$10; S. G. King, Chronicle building, \$10; Palermo L. & W. Co., church, \$10; Slakiyon county, fine display of apples, \$25; Misses Pratt and Fisher, Marysville, miniature ship, \$5; F. Gibson, Vernon, garden, \$20; A. A. Brownlee, Red

Bluff, two Washington Navels, \$5; Mrs. A. F. Meyer, Marysville, Steamboat, "Knight No. 2," \$10; R. Hector, Newcastle, hnded oranges, \$5.

HONORABLE MENTION.—Chico Board of Trade, 90 varieties of grain; Mrs. R. Keck, exhibit of cotton; Colusa County Horticultural Society, large beet; J. H. Durst, Wheatland, hops; D. A. Jackson, Woodland, Emperor grapes; Convent Notre Dame, Marysville, plants and grapes; E. O. Rollins, Oroville, grape-fruit; E. Findley, Chico, coconos and silk; Mrs. J. G. Cohn, Marysville, Banana tree; John Guill, five varieties winter pears; Mrs. Andrew Binney, Marysville, marmalade and orange jelly; R. Hector, Placer county, Parson Brown seedless oranges.

[From our issue of Jan. 3  
Please Remit.

The beginning of a new year is a good time to settle up the debts of the old ones. We are obliged to remind those who owe the PRESS on subscription account, that it will be a great convenience to us if they will soon remit what is due. Those who can also pay in advance will also do us timely and well-appreciated favor. We are doing our best to present a very valuable paper, representing carefully, earnestly and conscientiously the welfare of its intelligent readers and the best interests of the arts, sciences and mining and mechanical industries of the Pacific States.

To do this we deprive ourselves of some of the most lucrative lines of patronage available to the average newspaper.

By paying as promptly as possible, friends, you will greatly encourage us in our sincere efforts to favor you and the best interests of your calling.

Cal. With an "If."

EDITORS PRESS:—I see that Abbot Kinney takes exceptions to "Calif." as against "Cal." as the abbreviation for California. If he will examine the U. S. Postal Guide through the year 1885, he will see that Cleveland's Postmaster-General—Wm. F. Vilas, I believe it was—made an imperative order that the abbreviation for California should be changed from "Cal." to "Calif." This order is now disregarded even by the postal department. But it was mandatory long enough to make "Calif." an authorized abbreviation.

Sanders P. O., Cal. W. A. SANDERS.

HOLDING HONEY FOR BETTER PRICES.—It may interest our bee-keepers to know that a subscriber of the Rural in Cuba, West Indies, has now 45,000 pounds of honey, which he is holding for better prices, and he expects to have as much more by March 1st. This will make a big bunch of honey, and we trust he will realize well for holding it.

That beautiful glossy sheen, so much admired in hair, can be secured by the use of Ayer's Hair Vigor. There is nothing better than this preparation for strengthening the scalp and keeping it free from dandruff and itching eruptions.

Our Agents,

OUR FRIENDS can do much in aid of our paper and the cause of practical knowledge and science, by assisting Agents in their labors of canvassing, by lending their influence and encouraging favors. We intend to send none but worthy men.

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The wonderful sale of the book "Tokology," by Alice B. Stockham, M. D., has been the best commendation it has ever received. Everywhere it is finding its place in the home, guiding, relieving, advising and saving with its good sense and practical truths. It is not a common book, but every page of it is stamped with the worthy words of a woman who combines science and experience in a thorough and high-minded manner for the relief of her sex.—Exchange.

Price, prepaid, \$2.75. Very best terms to agents. See advertisement.

Price's Field Locomotive.

The item below from the Haywards Journal relative to steam plowing in Alameda county refers to the Jacob Price Field Locomotive exhibited at the last State Fair. This engine has now been plowing steadily for almost four months without a breakage, and at present is demonstrating that the smaller farms of our valleys can be advantageously cultivated by steam as well as the large ones.

Truman, Hooker & Co. will soon have a supply of these machines.

STEAM PLOWING AND SEEDING.—Haywards Journal, Jan. 2: A steam plow is in operation on a number of the fields of Irvington, and is attracting a good deal of attention. It does its work very speedily and effectively; but some of our old-time farmers think it looks rather uncanny walking over the fields.

Complimentary Samples.

Persons receiving this paper marked are requested to examine its contents, terms of subscription, and give it their own patronage, and as far as practicable, aid in circulating the journal, and making its value more widely known to others, and extending its influence in the cause it faithfully serves. Subscription, paid in advance, 5 mos, \$1; 10 mos., \$2; 15 mos., \$3. Extra copies mailed for 10 cents, if ordered soon enough. If already a subscriber, please show the paper to others.

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Should this paper be received by any subscriber who does not want it, or beyond the time he intends to pay for it, let him not fail to write us direct to stop it. A postal card (costing one cent only) will suffice. We will not knowingly send the paper to any one who does not wish it, but if it is continued, through the failure of the subscriber to notify us to discontinue it, or some irresponsible party requested to stop it, we shall positively demand payment for the time it is sent. LOOK CAREFULLY AT THE LABEL ON YOUR PAPER.

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— AND —  
HOW TO GROW THEM.

A MANUAL OF METHODS WHICH HAVE YIELDED GREATEST SUCCESS; WITH LISTS OF VARIETIES BEST ADAPTED TO THE DIFFERENT DISTRICTS OF THE STATE.

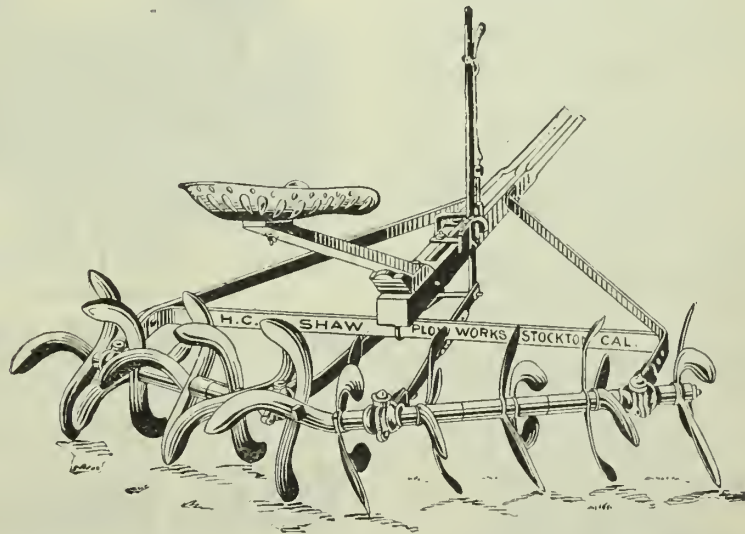
BY EDWARD J. WICKSON, A. M.

LARGE OCTAVO—575 PAGES.  
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SPADING HARROW.



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Specially Adapted for Orchards and Vineyards.

FOR TWO HORSES. Works the soil about six feet wide. Angle of teeth adjustable to work the soil at desired depth. THIS HARROW is something entirely new. IT IS THE GRANDEST ACHIEVEMENT of its inventor, C. LA DOW, who is the recognized authority on Harrows, there being but few leading Harrows at the present time not built under his patents. We have made exclusive arrangements for its sale and it can be obtained only through us or our agents.

THE NAME "SPADING" refers to its action on the soil. The action of each cutter is like that of a small spade, lifting and turning the soil from a depth of four to six inches, doing more perfect work than is possible with any other Harrow in the world. THE BLADES are made from spring steel, in operation vibrating and shaking off sticky soil. IT NEEDS NO SCRAPERS to clean the revolving cutters.

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TESTIMONIAL:

HAYWARDS, CAL., JAN. 15, 1891.  
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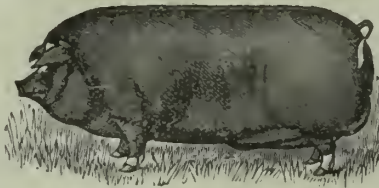
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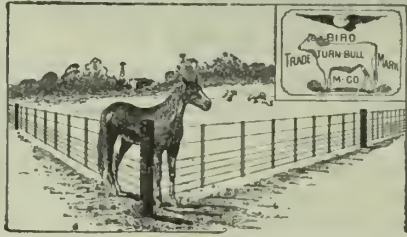


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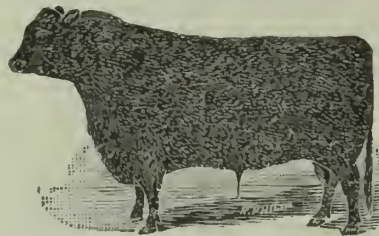
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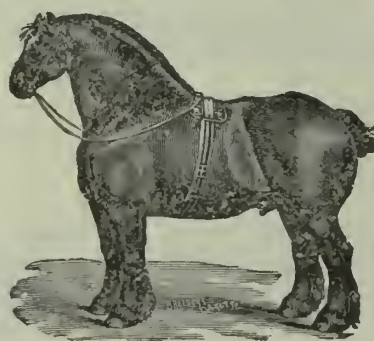
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One black and the other gray. Both seven years old last spring. Can show their colts. Weigh 1750 and 1840 pounds.

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THE BEST!  
—THE—  
**H. H. H.**  
Horse Liniment

Is certainly the best preparation of its kind in the market. Ranchers, Stock Raisers and Horse Owners of every description will tell you that it does good work every time.

MESSEURS, H. H. MOORE & SONS, Stockton, Cal.—GENTLEMEN: In answer to your inquiry, would state that I used your H. H. H. Liniment on my Holland prize-winning cow, "Lena Menlo," for a wrenched shoulder, and it relieved her very much. She calved the next day, and while still suffering from the sprain gave the largest authenticated quantity of milk ever given on this coast (10½ gallons per day), showing conclusively the great relief received from your remedy. I consider it a necessity in my stables, and when away from home feel perfectly safe, as inexperienced men can do no harm with it, as they can with the more powerful blisters. Respectfully yours,  
FRANK H. BURKE,  
Breeder of Registered Holsteins and Berkshires.  
Menlo Park, Cal., January 22d, 1889.

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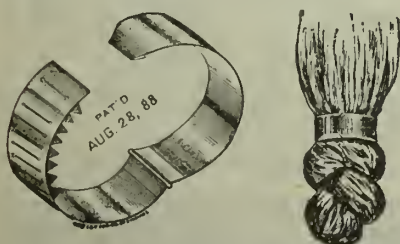
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Is now made in FIVE SIZES with Prices that will Suit.

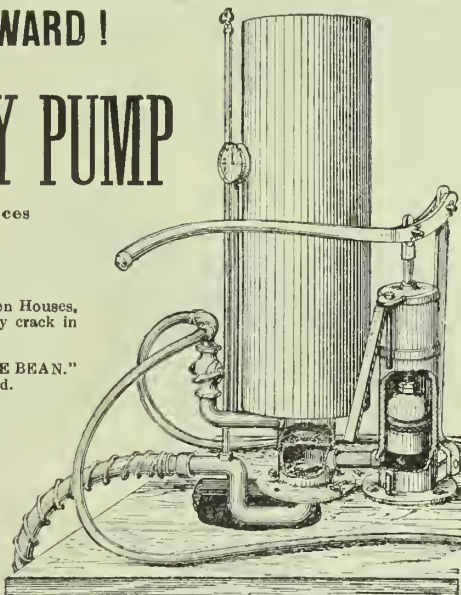
You can Whitewash your GRAIN HOUSES, Chicken Houses, Barns and Fences at a great saving of time, and every crack in the ceiling will get a dose.

Tree spraying is made easy and cheap by using "THE BEAN." With our LARGE pump four strong sprays can be used.

The NEW Bean Nozzle is not injured by the Lime, Sulphur and Salt Wash, which ruins all brass nozzles. Price \$1.

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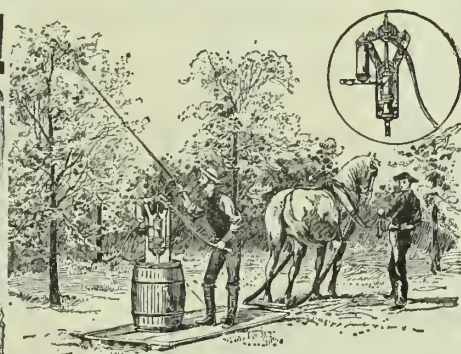
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## SPRAY PUMPS!



Star Spray Pump.



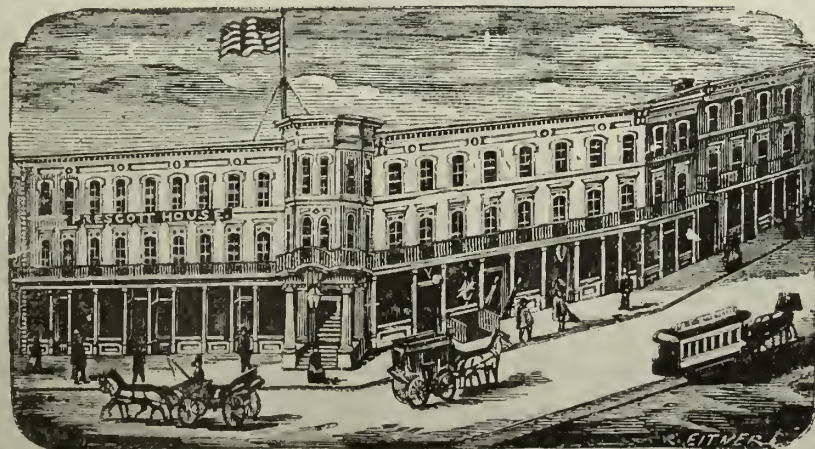
The Goulds Spray Pump.

WITH BAMBOO EXTENSION ALL FITTED UP, COMPLETE WITH HOSE, BARREL AND SPRAY NOZZLE. These cuts show in faithful operation our Gould's and Star Spray Pumps. They are utilized for spraying Fruit Trees, Orange Groves, Vines, and in fact, all trees or shrubbery infested with the destructive insects which infest and do so much injury to Orchards, Vineyards, Orange Groves, etc. They are made entirely of brass, with the exception of frame and handle, and are strong and heavy; the valves being made entirely of metal or rubber, and will not be affected by the corrosive solutions such as Caustic Soda Acids, Lye, or any other solution that may be used to kill the destructive insect. Send for Special Circular and Prices of Spray Pumps. NOTICE—ONGERTH'S LIQUID TREE PROTECTOR is the best Spray for killing Red Scale, Black Scale, White Cushion Cottony Scale, San Jose Scale, or any other insect. Send for Special Circular.

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Personal attention given to Sales and Liberal Advances made on Consignments at low rates of interest.

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Dividends paid to Stockholders.. 627,500  
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FRANK McMULLEN.....Secretary  
General Banking. Deposits received, Gold and Silver. Bills of Exchange bought and sold. Loans on Wheat and country produce a specialty.  
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**DEWEY & CO., PATENT AGENTS,** 220 Market St., San Francisco. Elevator, 12 Front St



## S. H. MARKET REPORT

## Market Review.

## DOMESTIC PRODUCE, ETC.

SAN FRANCISCO, Jan. 21, 1891.

General trade in farm products has been freer, with a strengthening in all lines. The weather continues dry, which causes among dealers some uneasiness, particularly after the hot norther on last Monday. The wind did not do any particular damage, owing to its short duration. All kinds of cereals are stronger and higher. In England, wheat moved down, but at the East it advanced. The following is to-day's cablegram:

LIVERPOOL, Jan. 21.—Wheat—California spot lots, 75 5/8 d to 75 9d; cargoes off coast, 38s 6d; just shipped, 38s 3d; nearly due, 38s 6d; cargoes off coast, quiet but steady; on passage, very little inquiry; Mark Lane wheat, slow; English country markets, quiet; French, stiff; wheat in Paris, quiet, flour steady; weather in England, colder.

## Foreign Grain Review.

LONDON, Jan. 19.—The *Mark Lane Express*, in its review of the British grain trade, says: English wheats are 6d dearer; foreign are firm. Flour is firm. At Liverpool corn advanced 1d 1/2 c, and at Leeds rose 6d 1/2 q. Barley is 6d higher and oats are 6d lower.

## Liverpool Wheat Market.

The following are the closing prices paid for wheat options per cwt. for the past week:

	Jan.	Feb.	Mar.	Apr.	May.	June.
Thursday.....	78 3/4	79 1/4	78 3/4	78 3/4	78 3/4	78 3/4
Friday.....	78 3/4	79 1/4	78 3/4	78 3/4	78 3/4	78 3/4
Saturday.....	78 3/4	79 1/4	78 3/4	78 3/4	78 3/4	78 3/4
Sunday.....	78 3/4	79 1/4	78 3/4	78 3/4	78 3/4	78 3/4
Tuesday.....	78 3/4	79 1/4	78 3/4	78 3/4	78 3/4	78 3/4

The following are the prices for California cargoes off coast, nearly due and prompt shipments for the past week:

	O. C.	P. S.	N. D.	Market.
Thursday.....	38s 6d	38s 6d	38s 6d	Firm.
Friday.....	38s 6d	38s 6d	38s 6d	Quiet.
Saturday.....	38s 6d	38s 6d	38s 6d	Quiet.
Sunday.....	38s 6d	38s 6d	38s 6d	Steady.
Tuesday.....	38s 6d	38s 6d	38s 6d	Steady.

## Eastern Grain Markets.

The following shows the closing prices of wheat at New York for the past week, per bushel:

	Jan.	Feb.	Mar.	Apr.	May.	June.
Thursday.....	105 1/2	105 1/2	105 1/2	105 1/2	105 1/2	105 1/2
Friday.....	105 1/2	105 1/2	105 1/2	105 1/2	105 1/2	105 1/2
Saturday.....	105 1/2	105 1/2	105 1/2	105 1/2	105 1/2	105 1/2
Sunday.....	105 1/2	105 1/2	105 1/2	105 1/2	105 1/2	105 1/2
Tuesday.....	105 1/2	105 1/2	105 1/2	105 1/2	105 1/2	105 1/2

The closing prices for wheat have been as follows at Chicago for the past week, per bushel:

	Jan.	Feb.	Mar.	Apr.	May.	June.
Thursday.....	98 1/2	98 1/2	98 1/2	98 1/2	98 1/2	98 1/2
Friday.....	98 1/2	98 1/2	98 1/2	98 1/2	98 1/2	98 1/2
Saturday.....	98 1/2	98 1/2	98 1/2	98 1/2	98 1/2	98 1/2
Sunday.....	98 1/2	98 1/2	98 1/2	98 1/2	98 1/2	98 1/2
Tuesday.....	98 1/2	98 1/2	98 1/2	98 1/2	98 1/2	98 1/2

NEW YORK, Jan. 21.—Wheat—\$1.05 1/2 for March, \$1.03 1/2 for May, \$1.01 1/2 for June, and 97 1/2 c for July.

CHICAGO, Jan. 21.—Wheat—94 1/2 c for May.

## Dried Fruits.

NEW YORK, Jan. 17.—Sales of three-crown loose Muscatel California raisins are reported at \$1.60 1/2 box, 10c below the general quotations.

A prime quality of evaporated California peaches is selling at 15¢ to 15 1/2¢ lb; fancy stock, 17¢ to 17 1/2¢.

NEW YORK, Jan. 18.—California obtains a fair share of January's dull business. The situation of dried fruits points to a better selling development, with a free display of upper quality raisins, and some bending to buyers' estimation. Of the grades boxed raisins have been coaxed along with considerable supply, reducing the effect. Choice faced three-crown, \$1.70 to \$1.75; layers, \$2.20 to \$2.25. Best established brands, bagged, range from 6 1/2¢ to 7¢. Useful to best inferior are slow and unsettled. Prunes are quite steady at 11c for four sizes. There was a brief inquiry for peaches, but no movement followed. There is no call for samples here or west. Apricots are firm and the last figures on the stock favor holders. Pitted plums, 16c; dried grapes, 4 1/2¢, extreme.

## Eastern Wool Markets.

NEW YORK, Jan. 16.—Bradstreet's says: Increased activity is noted in the wool market. Prices have not changed, but dealers consider them firmer and liable to advance should the present strong demand continue. All grades of wool are moving freely. Advice just received from Melbourne state that the upward tendency in prices is strong and firm, and a request for all grades of wool prevails. It is believed that such a condition in the Australian market insures high values at the opening of the London wool sales. The largest sales reported during the week have been made in Territories. The demand for pulled wools shows a steady increase. Ohio and Michigan fleeces and Texas and carpet wools are less active than a week ago. Holders are not making concessions in order to force sales, as all good wool is considered excellent property and will be in demand before the close of winter. Some large lots of Australian wool have been moved. Arrivals from the late Melbourne sales are in better condition than was expected, and manufacturers are securing a full supply of them, as it is believed that the lots in transit will be held higher.

NEW YORK, Jan. 18.—New York wool is in sympathy with strong current of New England trading. Business mainly Texas and pulled. Sales prompt at strong late prices. Stocks at seaboard gone out fast enough to almost insure for futures figures. Prospects of an extended cold season favor fabrics; unusual severe weather abroad will, to some degree, prevent the additions of clothing wool to our supply. Boston, active demand for all grades. Selling market no higher, but in the rush many lots quoted at the limit of value found buyers. Sales aggregate 4,332,000 lbs, of which about 650,000 lbs is foreign. Philadelphia expresses full former buoyancy of condition.

## Miscellaneous.

NEW YORK, Jan. 18.—Honey is scarce and strong; 7c for light amber.

Lima beans advanced to \$2.90. The new price is regarded as temporary by the trade, as the recent incident of filling liberal orders for Philadelphia for the moment cuts down the supply.

Hops show a better trade than for many weeks past; several hundred States, new, 32¢ to 36¢, the lat-

ter for nearly choice; State range from 32c to 38c for common to best; 1500 changed hands; 6c is now bid for the rest. Good olds, Oregon and Pacific range 30¢ to 37¢; fair sold at 32 1/2¢. Exports to date about equal to last year.

Enterprise and experience have made a marked improvement in California wines this season, which calls out applauding comments from many points of consumption.

## Local Markets.

	Buyer Season.	Seller 1891.	Buyer 1891.
Thursday.....	152 1/2	152 1/2	152 1/2
Friday.....	152 1/2	152 1/2	152 1/2
Saturday.....	152 1/2	152 1/2	152 1/2
Sunday.....	152 1/2	152 1/2	152 1/2
Tuesday.....	152 1/2	152 1/2	152 1/2

\*After August. †For the year.

	Buyer Season.	Seller 1891.	Buyer 1891.
Thursday.....	147 1/2	147 1/2	147 1/2
Friday.....	147 1/2	147 1/2	147 1/2
Saturday.....	147 1/2	147 1/2	147 1/2
Sunday.....	147 1/2	147 1/2	147 1/2
Tuesday.....	147 1/2	147 1/2	147 1/2

BAGS—The market is quiet, but there appears to be a stronger undertone at 6 1/2¢ to 6 3/4¢.

BARLEY—The sample market is strong, with a good demand and light supplies reported. In futures, trading continues light. The following are the reported sales made on to-day's call:

Morning Session: Seller 1891—100 tons, \$1.11 1/2; 200, \$1.11 1/2 1/2 c. Afternoon Session: Buyer 1891—100 tons, \$1.53 1/2. Seller 1891—100 tons, \$1.11 1/2; 100, \$1.12. Buyer season—100 tons, \$1.52 1/2 1/2 c.

BUTTER—The market is reported to be shaping itself for better figures, owing to stocks being nearly cleaned up and receipts light. While this may be the case, yet with rains dealers will want to buy for less money, and unless they get it will hold off.

CHEESE—The market is stiff, with an advance obtainable over our quotations. Receipts and stock are light.

EGGS—The market is steadier and firmer, due to the absence of supplies from Utah and farther East. Dealers have now to depend upon California.

FLOUR—The market is fairly steady at unchanged quotations.

WHEAT—The sample market is stronger at the close. In futures, trading is said to be quiet. The following are to-day's Call Board sales:

Morning Session: Buyer 1891—100 tons, \$1.49; 100, \$1.49 1/2; 500, \$1.49 1/2; 200, \$1.49 1/2. Buyer season—200 tons, \$1.43 1/2; 100, \$1.43 1/2; 100, \$1.43 1/2 1/2 c. Afternoon Session: Buyer 1891—200 tons, \$1.49 1/2; 400, \$1.49 1/2. Buyer season—800 tons, \$1.43 1/2; 400, \$1.43 1/2 1/2 c.

## Market Information.

## Produce Receipts.

Receipts of produce at this port for the week ending Jan. 20th, were as follows:

Flour, qr. sks.....	67,362	Middlings, sks.....	3,166
Wheat, cts.....	429,175	Alfalfa, ".....	7
Barley, ".....	27,468	Chicory, hbls.....	171
Rye ".....	1,526	Broomcorn bbls.....	108
Oats ".....	11,351	Hops, bbls.....	108
Corn ".....	8,112	Wool, ".....	108
*Butter ".....	649	Hay, tons.....	1,975
do bxs.....	324	Straw ".....	33
do hbs.....	324	Wine, gals.....	206,955
do kegs.....	324	Brandy, ".....	15,700
do tubs.....	324	Raisins, bxs.....	4,374
do bxs.....	45	Honey, cs.....	112
†Cheese, cts.....	401	Walnuts, sks.....	36
do bxs.....	31	Flaxseed, ".....	1,629
Eggs, doz.....	35,100	Mustard, ".....	5
do " Eastern.....	6,479	Almonds, ".....	360
Potatoes, sks.....	25,469	Popcorn, ".....	98
Onions, ".....	1,848	Beet sugar, bbls.....	100
Bran, ".....	11,629	do do sks.....	1,000
Buckwheat ".....	55	Overland 150 cts.	

## Cereals.

The local wheat market has held to strong prices throughout the week with a slightly higher range toward the close. The strength of the market is claimed to be due to dry weather, and while speculators are using this as a lever to manipulate prices in futures on the Call Board, there is not, as yet, any valid ground upon which to base a dry-weather scare. The number of acres seeded to wheat is nearly 4,000,000, and even with a loss of 25 per cent, which is not at all likely to occur, it would still equal that of 1889 and be largely ahead of last year's. The ground contains more moisture than for several seasons past and it will only require light but well-distributed rains in the month of February and March, with fairly cool weather in May, to make the largest crop on record. In raising a dry-weather scare or a light-crop scare the ship ring, which is composed largely of the members of a wheat ring, can prevent ships coming here in ballast or otherwise for early loading in next season, and in doing this, outward charters can be raised and a good round profit secured by the ring. This is the tactics they used last year and with good success too, for wheat charters nearly doubled by December. Many farmers help the ring by croaking too soon, under the delusion that it will cause buyers to pay more for wheat now, forgetting that it operates against them next season. That the price of wheat is too low does not admit of a doubt, and anything calculated to advance it is the correct thing, but it should not be done at the expense of next season's crop. Farmers are small holders now, the bulk being held by speculators and the ring, but next season farmers will own all and the ring very little. Some gilt-edged Walla Walla or Eastern Washington wheat has been placed at \$1.37 1/2 per cental on the wharf, but the general run goes at \$1.32 1/2 to 1.35. Eastern Oregon runs at about like prices. Willamette valley, or as generally called valley wheat, sells at a slight advance, 1 1/2¢ to 3 1/2¢ per cental, on the above quotations.

The barley market is strong at a slight advance. The supply is light and demand is good. Eastern Oregon and Eastern Washington are sending us more liberal supplies. The bulk of that received from up north is of excellent quality and finds ready

buyers. It is generally conceded that the stock in this State will be nearly exhausted by next June, but the acreage seeded and to be seeded to barley is very heavy.

Oats are strong. The supply in the State is very light, while from up north the surplus is being exhausted quite rapidly. There will be an increased acreage seeded both in this State and in Oregon.

Rye and huckwheat are steady. The receipts of the former show an increase.

Corn is steady, notwithstanding an attempt is made to shade off prices. The stock in the State is light, while higher overland freights will prevent free shipments to this coast unless prices with us advance still higher.

## Feedstuff.

Ground feed is strong, with a good demand ruling. The receipts, while showing a slight increase, are not up to present requirements. With rains soon, prices will shade off again.

The light supply of hay in this State is making itself felt in a strong and higher market. The scarcity of green feed causes more feeding of hay; besides this, a dry-weather scare is causing stronger holding. It is very generally claimed that more fields seeded to grain will be cut this year for hay than has been the case for three years past.

## Fruits.

Apples continue to come in freely. The bulk of receipts come from up north and are generally of good quality, yet the liberal supplies force consignments to be placed at only fair prices.

Oranges are coming in more freely, causing a shading in prices, particularly for the rough, thick-skinned kind. As a rule they are of inferior quality. Smooth, thin-skinned are given preference by dealers and consumers, but hucksters take the cheaper and inferior kinds, for they are better to peddle in certain quarters of the city. Shipments to the East are quite heavy.

Lemons are fairly steady.

Raisins are in good inquiry. There has been more quiet buying than for some time past. This is accounted for in two ways, one to take advantage of present freights before the advance goes into effect, and the other the low prices at the East and on this coast; and the high prices for other dried fruits have stimulated the consumption and consequently the stock at distributive points is comparatively light.

In dried fruits the market is exhibiting more life, but in a quiet way as if the purpose is not to excite sellers. Apricots, peaches and apples have been the more freely dealt in. The supply here of all kinds is quite light, while the spring trade has not opened as yet.

Choice to gilt-edged Spitzenberg apples are scarce and wanted. Sales were made to-day as high as \$2, although \$2.25 is quoted as top. Yellow Newtown gilt-edged sold readily to-day at \$1.75.

The supply of oranges was heavy to-day (Wednesday), and we doubt if the very best Riverside Navels would fetch over \$1 a box, yet we retain our outside quotations, for as soon as receipts slacken the market will recover. Other kinds are also weak and we doubt if the top quotations could be had.

## Vegetables.

In garden truck Los Angeles continues to send us peas, beans and tomatoes. Last week a consignment consisting of nearly 400 sacks of green corn came to hand from Los Angeles. Asparagus is lower under freer receipts.

Freer supplies of onions have caused the market to shade off some. The market closed weak.

New potatoes are coming in more freely. The size and quality show a decided improvement. In old potatoes the market shows a weaker tone. The supply in the State is very heavy. Several dealers in this city who bought last year for a big advance have been selling out while advising large holders in the interior not to sell. They were assisted by two of the daily papers.

Beans are strong and higher under heavy shipments overland to take advantage of the present freight before an advance is established on next Sunday (January 25th.) The dry weather is also having its influence, but the most favorable influences are a scarcity of supplies at the East and the stock in this State nearly exhausted.

## Live-stock.

So far as we are able to learn, no changes have been made in quotations. Arizona is still a large contributor of bullocks. The condition of the largest percentage is good, but some received were poor. Nevada is sending us less than heretofore. Mutton sheep are still scarce and high. Hogs are in fair supply, but outside of the block the demand is slow. For milch cows there is only a fair inquiry. Horses are reported to be about the same as heretofore quoted.

The market for dressed cattle is quoted as follows [to obtain the price on foot, take off from the price for stall-fed one-third to one-half, according to the nature of the feed and time fed; and for grass-fed take off the price from 40 to 60 per cent]:

HOGS—On foot, light grain fed, 4 1/4¢ to 4 1/2¢ lb; dressed, 7 1/2¢ to 8 1/2¢ lb; heavy, 4 1/4¢ to 4 1/2¢ lb; dressed, 6 1/2¢ to 7 1/2¢ lb. Stock hogs, 3 1/2¢ to 4 1/2¢ lb.

BEEF—Stall fed, 7 1/2¢ to 8 1/2¢ lb; grass fed, extra, 6 1/2¢ to 7 1/2¢ lb; first quality, 5 1/2¢ to 6 1/2¢ lb; second quality 4 1/2¢ to 5 1/2¢ lb; third quality, 3 1/2¢ to 4 1/2¢ lb; bulls and thin cows, 2 1/2¢ to 3 1/2¢ lb.

VEAL—Small, 6 1/2¢ to 7 1/2¢ lb; large, 5 1/2¢ to 6 1/2¢ lb.

MUTTON—Wethers, 8 1/2¢ to 9 1/2¢ lb; ewes, 7 1/2¢ to 8 1/2¢ lb; spring lamb, 15¢ to 16¢ lb.

## Miscellaneous.

Free receipts of poultry by overland rail keep the market in more or less of a demoralized condition, which is in no way improved by liberal receipts of game. The Chinese are buying ducks for their New Year's feast, which takes place soon.

Hops are about all cleaned up. Shipments have been made quite freely.

In wool there is absolutely nothing new to report, outside of that covered by the remarks contained in the Annual Review published in this issue of the PRESS.

Exports by sea the past week aggregate as follows: Flour bbls, Sligo, 22,300. Wheat cts, Sligo, 10,605; St. Vincent, 91,198; Cork, 41,884; Hull, 42,806; Liverpool, 71,141. Bran sks, Honolulu, 33,12. Hay bales, Honolulu, 1555. Barley cts, rolled, 697, in grain, 1472. Sugar lbs, Victoria, 32,822; Honolulu, 3500.

To our list of game we add the Sea Brant geese. They are hunted in Humboldt county, and owing to their juicy, delicious flavor they are destined to

command the highest prices. To introduce the Sea Brant, C. Nauman & Co., to whom they are consigned, sell them for the present at \$2 a dozen.

Honey is very strong with a slight advance obtainable over our outside quotations.

From the *Commercial News* of Jan. 21st the following summary of tonnage movement is compiled:

	1891.	1890.
San Francisco.....	280,504	183,615
San Diego.....	15,475	12,401
San Pedro.....	4,981	3,840
Oregon.....	36,472	24,193
Puget Sound.....	18,746	15,875

Totals.....356,178 239,924

In port at San Francisco, disengaged..... 77 219 27,757

" engaged for wheat..... 42 912 70,858

San Diego..... 15,475 12,401

San Pedro..... 4,981 3,840

Columbia River..... 14,142 3,510

Puget Sound..... 18,746 15,875

Totals.....64,273 95,125

To get the carrying capacity, add 65 per cent to the registered tons as given above.

From July 1, 1890, to Dec. 31, 1890, the following are the exports from this port: 1890. 1889.

Wheat, cts.....5,859 269 6,233,523

Flour, hbls.....507,116 546,302

Barley.....176,369 815,865

## Domestic Produce.

Extra choice in good packages fetch an advance on top quotations, while very poor grades sell less than the lower quotations.

BEANS AND PEAS.

Barley, cts..... 3 1/2 to 3 3/4 Softshell..... 14 to 15

Butter..... 2 1/2 to 3 1/2 Butter shell..... 15 to 16

Peas..... 2 1/2 to 3 1/2 Peas small..... 12 to 14

Red..... 2 1/2 to 3 1/2 Peas large..... 15 to 18

Pink..... 2 1/2 to 3 1/2 Peanuts..... 5 to 6

Small White..... 2 1/2 to 3 1/2 Filberts..... 12 to 13

Linseed..... 3 1/2 to 4 1/2 Hickory..... 7 to 8

Flax seed..... 1 1/2 to 1 3/4 Chestnuts..... 12 to 15

do green..... 2 1/2 to 3 1/2 Pine nuts..... 7 to 8

do Niles..... 1 1/2 to 1 3/4

Split..... 4 1/2 to 5 1/2 Silver Skin..... 2 1/2 to 3 1/2

Choice to Extra 70 to 90 00 Early Rose, aka..... 70 to 80



List of U. S. Patents for Pacific Coast Inventors.

Reported by Dewey & Co., Pioneer Patent Solicitors for Pacific Coast.

FOR THE WEEK ENDING JAN. 6, 1891.  
 444,272.—FLY-BOOK—J. S. Benn, S. F.  
 444,191.—TABLE—J. S. Borden, Valley Center, Cal.  
 444,329.—HYDRANT—T. W. Brooks, S. F.  
 444,289.—MAIL-BAG FASTENING—O. P. Callahan, Spokane Falls, Wash.  
 444,229.—COMPOUND FOR COLORING BROOM-CORN—R. M. Donovan, Portland, Or.  
 444,097.—SASH BALANCE—S. N. Goldy, S. F.  
 444,352.—GAME PUZZLE—C. P. Harris, S. F.  
 444,098.—JOINT FOR SUCTION-PIPES OF DREDGER—W. P. Humphreys, S. F.  
 444,099.—JOINT FOR SUCTION-PIPES OF DREDGER—W. P. Humphreys, S. F.  
 444,115.—INJECTOR OIL BURNER FOR BOILER FURNACES—J. H. Jones, S. F.  
 444,361.—PHOTO-CAMERA SHUTTER—G. F. Kincaid, S. F.  
 444,003.—COLLAR PAD—F. M. Limbaugh, Woodbridge, Cal.  
 444,367.—DERRICK—D. F. Oliver, Oakland, Cal.  
 444,252.—SCREEN—A. A. Palm, Oakland, Cal.  
 444,104.—ELECTRIC ARC LAMP—A. W. Reppy, Oakland Pier, Cal.  
 444,057.—PIANO ACTION—J. Rudolf, S. F.  
 444,224.—ANTI-FRICTION BEARING—E. Stempel, S. F.

FOR THE WEEK ENDING JAN. 13, 1891.  
 444,418.—SAD IRON—D. B. Baker, San Jacinto, Cal.  
 444,573.—SEEDING MACHINE—D. M. Baldwin, Florence, Cal.  
 444,661.—TETHER PIN—L. P. Carl, Perris, Cal.  
 444,694.—RAIL-CLEANING ATTACHMENT FOR LOCOMOTIVE—H. T. Currie, Allina, Or.  
 444,522.—KNIFE SHARPENER—A. Dudden, Santa Barbara, Cal.  
 444,576.—TRAIN FARE PUNCH—W. D. Eitel, San Jose, Cal.  
 444,777.—PIVOTED JAW WRENCH—C. V. Greenamyer, S. F.  
 444,778.—BENCH CLAMP—C. V. Greenamyer, S. F.  
 444,779.—PIPE WRENCH—C. V. Greenamyer, S. F.  
 444,633.—R. R. SWITCH—A. M. Grubbs, Forrest Grove, Or.  
 444,437.—CABLE RAILWAY—L. Heynemann, S. F.  
 444,578.—LENGTHENING METALLIC BEAM—P. H. Jackson, S. F.  
 444,579.—LENGTHENING METALLIC BEAM—P. H. Jackson, S. F.  
 444,580.—STEERING APPARATUS—J. B. Jurdine, S. F.  
 444,795.—COMPASS ATTACHMENT FOR FIELD GLASSES—E. G. King, S. F.  
 444,754.—FILTER—E. M. Knight, S. F.  
 444,796.—GLOBE—J. Lyman, San Jose, Cal.  
 444,581.—CABLE RAILWAY—P. Noble, S. F.  
 444,570.—SPREADER FOR GAITING HORSES—J. R. Phelps, Sacto., C. I.  
 444,543.—PESSARY—E. W. Wagner, San Jose, Cal.  
 444,572.—COFFEE-POT—G. A. Williams, S. F.  
 444,646.—WHIFFLETREE COUPLING—J. J. Kocher, Los Angeles, Cal.  
 444,503.—CARPET-STRETCHER—D. H. McFalls, Ellensburg, Wash.

NOTE.—Copies of U. S. and Foreign patents furnished by Dewey & Co., in the shortest time possible (by mail or telegraphic order). American and Foreign patents obtained, and general patent business for Pacific Coast inventors transacted with perfect security, at reasonable rates, and in the shortest possible time.

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Colmena Colony.

The fruit colony established by Mr. Abbott, an extensive fruit-grower of Sutter county, and Dr. Smith of Iowa, as principal owners, three years ago, and known as Colmena Colony, was well represented at the Marysville Citrus Fair in oranges, raisins and dried deciduous fruit.

The portion set out with orange trees is adjacent to the railroad, about eight miles below Marysville. During the week of the fair a company was formed to purchase 100 acres of this tract to plant in olive trees and Muscat grapes. We have several times noted the progress of this colony in the columns of the RURAL PRESS, and now, after an experimental period of three years, are pleased to learn that the promoters and settlers in this section have more than realized their expectation in the growth and adaptability of this section for citrus fruits and the raisin grape.

PACIFIC COAST WEATHER FOR THE WEEK.

[Furnished for publication in this paper by officer in charge of branch Signal office, Division of the Pacific.]

DATE. Jan. 11-20.	Olympia.			Portland.			Eureka.			Red Bluff.			Sacramento.			S. Francisco.			Fresno.			Keeler.			Los Angeles.			San Diego.			
	Rain. .....	Temp. .....	Weather. .....	Rain. .....	Temp. .....	Weather. .....	Rain. .....	Temp. .....	Weather. .....	Rain. .....	Temp. .....	Weather. .....	Rain. .....	Temp. .....	Weather. .....	Rain. .....	Temp. .....	Weather. .....	Rain. .....	Temp. .....	Weather. .....	Rain. .....	Temp. .....	Weather. .....	Rain. .....	Temp. .....	Weather. .....				
W.	.00	46	S Cy.	.00	40	NE Cy.	.04	52	0 Cy.	.00	50	NW Cy.	.00	50	SW Cy.	T	52	NW Cy.	.00	52	S PC	.00	44	0 Cl.	.00	54	W Cl.	.00	58	SW PC	
T.	.40	48	S Rn.	.24	52	S Cy.	.03	56	SW Cy.	.06	46	NW Cy.	.00	52	NW	T	00	52	NW Cy.	.00	56	NW PC	.00	40	0 Cy.	.00	58	W Cl.	.00	58	NW Cl.
F.	.00	52	S Cy.	.00	50	S Cy.	.00	54	NW Cy.	.00	50	SE Cy.	.00	48	SE Cy.	00	54	0 Cy.	.00	50	S Cy.	.00	44	NE Cy.	.00	60	W PC	.00	64	NW Cl.	
S.	.14	48	S Rn.	.04	50	S Cy.	.06	54	0 PC	.00	58	NW Cl.	.00	54	N Cl.	.00	54	W Cl.	.00	52	NW PC	.00	48	E Cy.	.00	60	W PC	.00	60	W Cl.	
S.	.12	54	S Cy.	.00	56	S Cy.	.00	54	N Cl.	.00	68	NW Cl.	.00	54	SE Cl.	.00	56	S Cl.	.00	52	W Cl.	.00	58	N Cl.	.00	70	NW Cl.	.00	74	N Cl.	
M.	.04	52	NW Cl.	.00	54	0 Cl.	.00	54	W Cl.	.00	70	NW Cl.	.00	58	S Cl.	.00	64	SE Cl.	.00	60	W Cl.	.00	62	N Cl.	.00	64	W Cl.	.00	68	NW Cl.	
T.	.00	48	N Cy.	.00	50	NW Cl.	.00	58	SW PC	.00	72	NW Cl.	.00	69	N Cl.	.00	62	NW Cl.	.00	63	SW Cl.	.00	62	NE Cl.	.00	66	NW Cl.	.00	70	NW Cl.	
	.70	.....	.....	.28	.....	.....	.16	.....	.....	.06	.....	.....	.00	.....	.....	T	.....	.....	.00	.....	.....	.00	.....	.....	.00	.....	.....	.00	.....	.....	

EXPLANATION. Cl. for clear; Cy. cloudy; Fr. fair; Cm., calm; indicates too small to measure. Temperature wind and weather at 5 P. M. (Pacific Standard time) with amount of rainfall in the preceding 24 hours. T indicates trace of rainfall. P C, partly cloudy. Rn., rain.

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ANNUAL MEETING.

MEMBERS ARE HEREBY NOTIFIED THAT THE Annual Meeting of the Equity Benefit Association will be held on Monday, February 2, 1891.

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A practical treatise by T. A. GARRY giving the results of long experience in Southern California. 106 pages, cloth bound. Sent post-paid at reduced price of 75 cts. per copy by DEWEY & CO., Publishers, S. F.

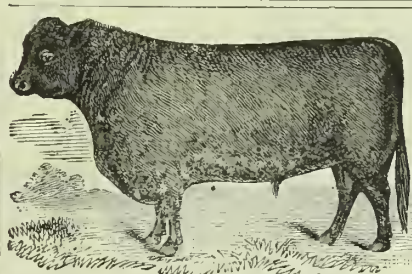
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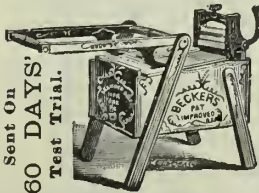
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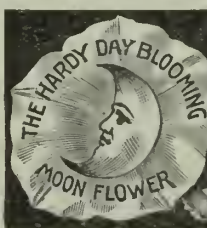
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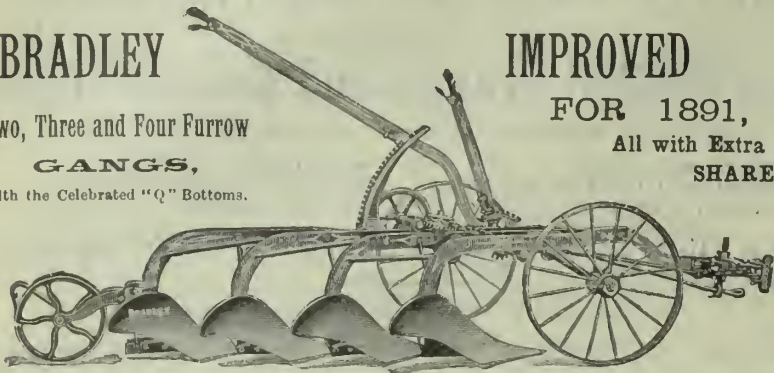
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Yours very truly,

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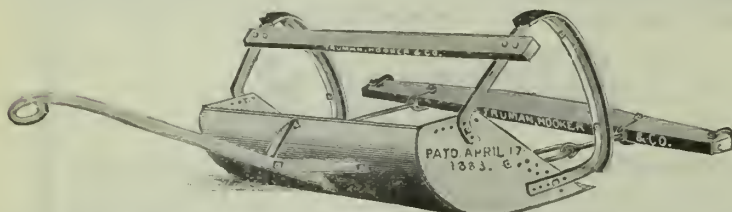
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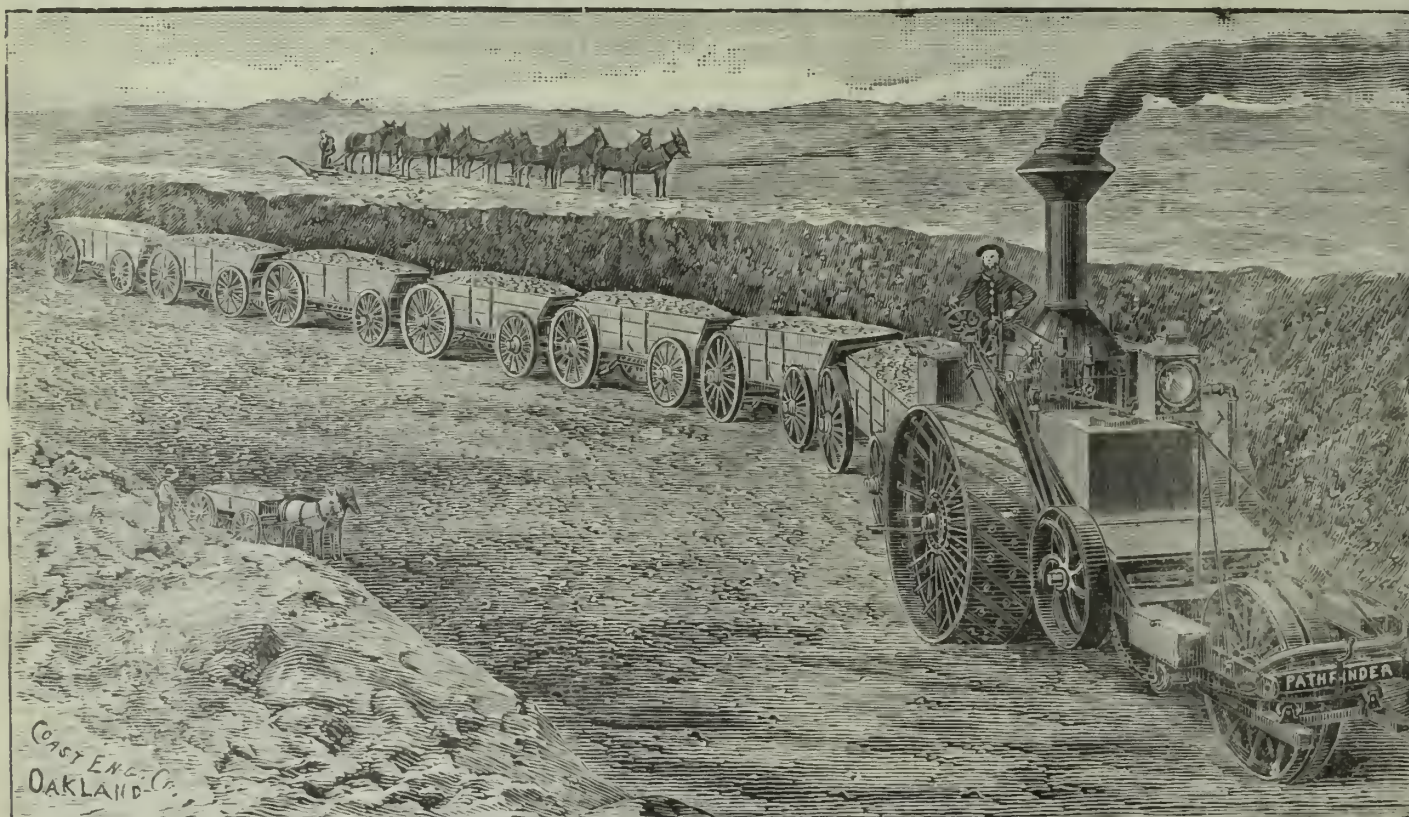
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Steam Harvester and moves along  
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# PACIFIC RURAL PRESS

Vol. XLI.—No. 5.

SAN FRANCISCO, SATURDAY, JANUARY 31, 1891.

{ DEWEY & CO., Publishers,  
Office, 220 Market St.



VIEWS IN THE VICINITY OF PORTERVILLE, TULARE COUNTY, CAL.

## Development of the Upper San Joaquin Valley.

During the last two or three years there has been wonderful progress made in the settlement and development of the counties lying at the southern end of the great San Joaquin valley. Of course there has been excellent work in progress there for decades, but it is only recently that the earlier achievements began to exert their full influence, and now there are advancement and development than which probably no region of the State can show greater. New railway lines have given free access to new sections, irrigation from river and flowing well has reclaimed vast arid areas, and the success and profit in various productive

enterprises have attracted hosts of people to local investment and industry.

A hint of such progress is given in the engraving on this page, which is the first of several which we shall present to our readers. It is a group of scenes in the vicinity of Porterville, a comparatively new town situated on the east side of Tulare county and located in a smaller valley which opens into the vast valley of the San Joaquin. Porterville valley is described as surrounded on three sides by low hills, behind which tower the high Sierra. To the southwest the valley is open and connects with the San Joaquin plains. Around the town of Porterville there are said to be 100,000 acres of excellent land, which is being rapidly brought into cultivation by means of irrigation.

In the suburbs of the town there are already attractive residences surrounded by gardens, orange groves and fruit orchards. The climate and soil favor the growth of semi-tropical products, and oranges of the highest quality have been produced in the vicinity.

One of the agencies by which the Porterville lands are being developed and made available to settlers in small tracts is the Pioneer Land Co., organized by prominent San Francisco capitalists. They are doing much to make the resources and adaptations of the region better known. As we have said, the engravings on this page give a hint of some of these resources. The artist began by throwing a branch of a fig tree, with its ripening fruit, across his plate as a symbol of the success of this fruit in the

region. In the center, as expressive of the agency by which growth is accomplished, is a portion of an irrigation canal with sluices at intervals to check the too rapid flow of the water. Upon the left above is a view from the porch of a newly erected residence, over a plantation of orange trees newly planted, with a glimpse of the outskirts of the town in the background. Above, to the right, is a grove of bearing orange trees, showing their thrift and vigor. Below, on the right, is one of the grand oaks with which the valley is dotted, and on the left is a scene on a village street—chosen rather for its picturesque quality than for significance, for Porterville is well supplied with brick blocks and other marks of municipal progress.



## CORRESPONDENCE.

Correspondents are alone responsible for their opinions.

## Napa County Notes — The Farmers' Cause.

EDITORS PRESS:—Five inches of rain to date, this season, twenty inches and more to even date last year, is the way the record for this portion of Napa county reads. Seldom have we had so light a rainfall as this season, at this date. Not sufficient water has fallen to fill the ditches as yet. It is a saying we frequently hear some pioneer farmers repeat that no matter how dry any season may be, the open ditches must be filled and running some time during the winter. Six or eight years ago there was very little rain until many persons thought the rainy season was about over; then came in April one of the greatest freshets we ever had.

All the rains this season have been light ones and neither succeeded nor accompanied by high winds. There never was a season more propitious for the farmer. A large acreage of land has been seeded to wheat and barley, and the grain was placed in the ground in excellent condition. Never had we more favorable prospects, and unless something unusual happens, this county will harvest a fine crop next fall.

Nor are the favorable prospects limited to the grain farmer alone. Vineyardists and orchardists are likewise favored, thousands of fruit trees are being planted, and nurserymen are doing a driving business. May the farmer have a very prosperous year. He not only deserves it, he needs it.

But there are poor prospects for good pasturage. Young grass grows slowly, if, in fact, it grows at all, and our hillsides are hardly green. Stook requires considerable feeding, and will for some weeks. There was not a surplus of hay in any part of the county last fall, consequently, pasturage being so poor to date, the price of hay, barley and corn is higher now than for many years. Those farmers who stored their hay last fall will dispose of it at good figures.

Fortunately we have excellent roads this winter. That is greatly owing to the small rainfall, and partly to the fact that considerable work was done on the highways last summer and fall. Last winter our roads were, in many localities, simply wretched. Then it was, when, with much difficulty, we waded through the mud from farm to town, that the farmer, as well as many other classes of our citizens, wondered where all the thousands of dollars that had been expended on our roads during the last decade had gone; what permanent good had been done. It made some of us just about sick. The taxes of our farmers are grinding, as they all say; are enormously high. To see many of their hard-earned dollars expended for naught was enough to make them complain.

The fact is, as is now generally acknowledged in every county in the State, our road laws are far, far from being perfect. If we could see good done, commensurate with the enormous outlay, we would not complain. We often blame our numerous road-masters, overlooking the faults in the law under which they work. What we want, what we demand, is a radical change in the laws regarding our roads, soon; this winter. The various road laws that have been passed by our Legislature during the last two decades have not met the expectations of the public.

This seems a difficult problem, not only in all portions of our State, but in almost every State in the Union. We hope our present Legislature will give us a perfect road law.

If the farmers in this State were united as they are in many States eastward, the pressure they could bring to bear on our lawmakers, on matters like the above and many others of vital interest to them, would accomplish much. We are slow to unite in this State, but indications are that the time is not far distant when there will be more unity of action.

The fact is, our farmers are beginning to see more clearly than ever before what a tremendous influence they can wield if they agree upon concerted action. The results accomplished by their brethren in the East show them this.

## Farmers and Taxes.

In his speech, nominating our esteemed fellow-townsmen, Hon. F. L. Coombs, for Speaker of the Assembly, J. C. Brunsie said, among other things: "The taxpayers of this State have become suspicious of their Legislatures. There must be some foundation for this distrust."

Go where one may, in any part of this country, he will find, upon investigation, that among farmers this is a general complaint, and has been for a long time, and that by reason of not very abundant crops, and low prices received for produce, they demand that their burden of taxation be lessened.

In commenting upon the movement among farmers in the East, Hon. J. M. Rusk, Secretary of Agriculture, lately said: "The farmer knows that the burden of taxation is not equally divided; that he bears more than his share. He is dissatisfied with our financial system. In a general way he argues, and justly enough, that it does not matter whether he is better off than his father was, or better off than he himself was years ago, so long as he is

not as well off as he might be if differently ordered.

"In the matter of domestic taxation, the farmer must necessarily look for relief from State legislation."

On the subject of currency, the same writer says: "As to the currency question, unquestionably one lesson of the farmers' movement is, that an increase in the circulating medium is demanded, and with this demand, so far as it can be granted consistently with the preservation of sound currency, I am heartily in sympathy. The true fiscal policy is to provide a circulating medium ample to meet all the requirements of business, established on a basis so sure as to avoid all danger of depreciation and yet so elastic as to permit of ready expansion to meet the growing wants of the country. The solution of this question may be difficult, but it is a question that must be met and I believe can be wisely solved."

On the same line, Hon. W. H. Hatch, for a long time chairman of the Committee of Agriculture in the House of Representatives, says: "The gradual and steady decline of farm products began with the demonetization of silver. I confidently believe that its restoration to a perfect equality with gold as to coinage, bullion and certificates, based upon the ratio fixed by our laws, will be greatly beneficial in restoring prices of farm products to an average that will be remunerative, if not profitable, to the producers."

"Boycotts, lockouts, riots, and the growth of anarchy and socialism—the only expressions of popular discontent at that time—all pointed toward the violent overthrow of our Government. But the introduction and growth of the Farmers' Alliance has forced all these expressions of discontent to the background, and awakened a hope in the breast of every friend of humanity that the problems of the closing years of the nineteenth century will be so solved as not only to preserve the present form of Government, but to establish it more successfully and permanently."

Among the signs of the times is this: The farmer of the future—immediate or not far extended—will wield a much greater influence in State and National government than during the past history of our nation. May he act wisely. May he accomplish much for the good of our beloved country, for the lasting welfare of our prosperous State.

Napa, Jan. 15, 1891.

## Semi-Annual Payment of Taxes.

EDITORS PRESS:—During the four years I have been in California I have noticed a great depression of business and scarcity of money about January 1st. If our taxes could be divided and paid semi-annually, half this depression would be overcome. This is the time of the year in this State that people need money most, as the weather is cool and nice for building and making all kinds of improvements, buying trees and planting them, and if this is not done now it is postponed for a year. It is very important that the farmers should have five or six millions in their hands now instead of having it in the banks. I know it is a turkey for the banks but it is crow for us. The semi-annual system was adopted in Iowa several years ago, and it is greatly appreciated.—MILO GILBERT, Colton.

[This subject is now before the Legislature, and is apparently being considered with much care. We trust some relief for the present holiday depression may be secured by this winter's enactments.—EDS. PRESS.]

## From Placer.

EDITORS PRESS:—Crop prospects in the foothills of Placer county are about an average. The rains of the winter have been scanty but have come in good shape, but the hedrock is not soaked as it should be at this time, but is entirely dry, so that the hay crop is absolutely dependent on the spring rains. Many thousand trees have been planted, so that the nurseries are about sold out. I believe French prunes to be the best-paying fruit for this region. It is too soon yet to say whether olives will pay as well as expected. The seasons are too late for raisins. They are caught in the early rain too often. But prunes and plums, and in many places peaches, are sure and profitable. New irrigation ditches are being constructed in many places.

Auburn.

## THE APIARY.

## Questions Answered.

EDITORS PRESS:—A Santa Cruz county bee-keeper asks the following questions:

I have six swarms of bees, all of them in movable frame hives with plenty of honey. These swarms have, however, very little brood, there being only a small patch of brood on one or two frames in each hive.

What I want to know is this: How can I increase the amount of brood in each hive without uniting some of the swarms? Just now the weather is warm, yet the bees will not work a foundation; and as I have no empty combs I do not know what to do. Then there is another thing; I can never find any queens. I have looked over all the frames trying to find the queens, but I always fail. I can only ascertain that the queens are alive by fresh eggs, which I find in the frames of each hive. Can you

tell me any good rule to find queens? I saw your name in the PACIFIC RURAL PRESS. Hope it will not be too much trouble for you to answer my questions.—J. I., Glenwood, Santa Cruz.

Your bees are all right. At this season of the year bees have very little brood and in some colonies none at all.

If you contemplate queen rearing and want to raise early drones and queens, feed your bees thinned honey; it is cheaper than sugar for stimulating brood rearing; use an atmospheric feeder or any kind of a feeder that bees are not liable to get drowned in; place the feeder in the upper story of the hive. If you notice your bees carrying in pollen, you may place your feeder out in the open air at a distance from the hives, and I do not think you will be troubled by robbing; if no pollen is coming in, be sure and feed inside the hive, because if you do not, it may excite them to robbing. All things considered, it is best for the bees to be packing pollen before you feed them, because brood rearing is then carried along more rapidly and safely. If you do not desire to raise queens, do not bother your bees. In a few weeks they will commence to breed rapidly in your location anyway. No, your bees will not work on foundation until there is plenty of honey coming in. At present they have no need of surplus combs and will not work on the foundation given them until the fruit trees are well in bloom, and when they can obtain plenty of honey from the fields.

In regard to finding queens there is not any given rule. I sometimes find them one way, sometimes another. The way I generally proceed to find queens is this: I open the hive gently and blow a few puffs of smoke over the frames, and then remove one of the side frames. I examine this carefully, and if I do not find the queen, I place the frame in an empty hive I have near at hand, and take out another frame, and thus search until I find the queen. Another good plan is this: Take out each frame separately and shake all the bees on a white cloth in front of the hive, and as you see the queen running in, pick her up. With black bees it is sometimes very difficult to find the queens, because they so much resemble the bees themselves in color and size; with Italian, Cyprian and Carniolan bees, it is comparatively easy to find the queens, because of their large size and bright color.

If you wish to remove a queen, catch her by the wing and place her in a queen-cage. If you are a beginner, never catch a queen by the head, because the chances are that you will surely kill her in trying to hold her. If you wish to keep the queen in a cage any length of time, you should have at least a dozen attendant bees.

In capturing these bees to put in the cage, catch them by the back of the neck, as the saying is, and they will not have much of a chance to sting you. In caging queens, I have sometimes picked up over a hundred bees in less than half an hour, and placed them in a cage, and never received a single sting. For beginners and others who are timid about picking up queens, I would advise them to get a Klimitz queen-catcher; they may be obtained from any extensive dealer in apian supplies.

## Queen-Cages.

The best cage that I know of at the present day for shipping and introducing queens is the Peet cage. With this kind of cages, queens can be mailed and safely sent across the continent. I have received a great many queens from Eastern dealers, the queens in all kinds and styles of cages, and 19 out of 20 queens sent in Peet cages were all right and in good order, while in the other kinds fully one-half were dead, and sometimes all of the attendant bees.

The Benton cage is said to be superior to the Peet cage, but in my experience with it I have not found it so.

## Clipping Queen's Wings.

Beginners in bee culture are generally under the impression that by clipping the queen's wings it will prevent swarming; such, however, is not the case. The clipping is only done to prevent the loss of a swarm—to keep them from emigrating to other parts.

I do not believe in clipping the queen's wings. I think it has more disadvantages than advantages, taking all things into consideration.

Beginners must be especially careful about clipping queen's wings; be sure and do not clip the wings of a virgin queen, for if you do she is as good as lost. All queens are mated high in the air, and if a queen cannot fly, she will never get mated. It seems almost incredible, but such is the case.

Queens are only mated once in a lifetime, and if an Italian queen mates with a black drone her progeny will be hybrids always afterward.

A great many contrivances have been tried in order to secure the fertilization of queen bees in confinement, but so far all have signally failed.

Confining queens in the hives to prevent swarming will not work; it is not the queen that urges swarming, but rather the bees themselves, for when the swarming desire is upon them they will swarm, queen or no queen. If you have not time to watch your bees, and are afraid of losing them, place one of Alley's combined drone and queen traps over the entrance of the colony that you think is going to swarm. If they happen to swarm during your absence, the queen is caught and the swarm is saved.

S. L. WATKINS.

Grizzly Flats, Cal.

## HORTICULTURE.

## The Prune Industry of France.

Readers will remember the map of the prune district of France which appeared in our issue of Nov. 15th, page 415. If they will refer to that map as they read the following interesting article given below, they will find both entertainment and instruction. The December issue of the *Kew Bulletin of Miscellaneous Information* contains an article on the prune production of France by M. W. Colchester-Wemyss, from which we quote. It contains allusions to many things frequently discussed in this State:

"About 60 miles above Bordeaux there falls into the Garonne a fine river which, taking its rise among the mountains of Cevennes, follows a course of some 150 miles until its junction with the Garonne. This river is called the Lot, and the two rivers together confer the name on the department known as Lot and Garonne. For several miles along the lower reaches of the Lot, and in the country immediately adjacent to the spot where it enters the Garonne, is produced the fruit known, when it has been specially prepared, as 'French plums.' For over 100 years the industry has been fixed in this locality, and still, with the sole exception of a valley in Servia, there is no other place where the same trees are cultivated. The tree is called 'Prunier d'Ente.' 'Enter' is an old French word meaning to graft, and it is simply so called because this particular species was formerly the only plum in this district that ever was grafted. Now there are, practically, no plums other than the 'Prunes d'Ente' grown in the neighborhood. Higher up the Garonne, round the old town of Agen and in other parts of Southern France, another plum—the 'Prunier Commun'—is largely grown, and its fruit treated similarly to that of the 'Prunier d'Ente,' but the produce is very inferior and only suitable for stewing; but I believe that nowhere except in the Servian valley is the true 'Prune d'Ente' at present grown, and though many experiments have been made with other varieties, no others have yet been discovered that will yield the established qualities of the 'French plums.' It is rather capricious in its growth, for its area of cultivation does not extend very far from the riverbank. It appears to delight in a rich alluvial soil of a rather sandy nature, but which contains a sufficiency of clay to make it very retentive of moisture. The center of the 'French plum' district may be said to be at Clairac, a quaint little old-fashioned town built on a steep hillside overlooking the Lot, almost more Spanish-looking than French, its houses shaded from the fierce southern sun with wide outspreading eaves and flower-clad balconies.

"In this and the neighboring communes the metayer system is in full operation, and it appears to work well and harmoniously. The owner of the land engages the metayer and supplies all the implements and stock required for the holding; he also keeps the buildings in repair, including the houses used by the metayer. The latter finds the whole of the labor, except such extra labor as is needed during harvest-time. The metayer, during the year, has entire control of the farm, and buys and sells, subject, if required, to the consent of the owner. He renders account of all produce from the holding consumed by himself and family, and at the end of the year the balance of profit is divided equally between the owner and the metayer. During the last few years the metayers have fared badly, for the phylloxera has devastated the vineyards, and said it is to see acres and acres of land excellent for the growth of grapes, but fit for little else, now deprived of those crops which formerly so well repaid the cost of cultivation. The holdings vary in extent from 10 acres to sometimes 50 and 60, and on every holding in the lowlands are to be seen rows of the 'Prunier d'Ente.' The rows are separated from each other by long strips of cultivated land where the mild fawn-colored oxen lazily drag the most old-fashioned and primitive implements over the easily broken soil. The plums are long-shaped, the end to which the stalk is attached being very much the more pointed; color red, deepening into a rich violet as the plum ripens. The skin is extremely tough, without being very thick or hard; the flesh very firm, containing a large amount of saccharine; the specific gravity much less than that of several varieties of English plums with which I made comparison.

"The tree is a very slow grower, requiring ten years to bring it into full bearing, though I saw some trees six years old, very favorably situated, with a fair crop of fruit on them. The fruit also matures very slowly, and is not ripe till all other fruits in the district, apricots, green gages and peaches, have ripened. The plums are picked when just ripe, before the flesh has begun to soften; they are placed on 'clais,' or trays, one layer of plums on each 'clais.' The 'clais' are made either of strips of wood or of wicker-work, and are either triangular or round. They are a little deeper than the thickness of a plum, so that when not in the ovens they can be safely placed upon each other. The 'clais' when filled are arranged upon the bottom of the 'fours' or inside the 'etuves,' and the operation commences. Each homestead has a building in which are placed the 'fours,' and also the 'etuve,' if the metayer possesses one. The 'fours' are sim-



ply like very large ordinary bread-ovens. They are usually built in pairs, each one about ten feet long and four feet wide; they are heated by burning wood inside them; the ashes are cleared out and the 'clales' placed inside. The 'etuves' are closets of variable dimensions, with different appliances for holding the 'clales'. They have a small furnace with pipes underneath the floor for heating. There seems to be a preference for the 'fours,' though the 'etuves' are simpler and more convenient in every way.

"When the fresh fruit is put in, the temperature should be about 100 degrees Fahrenheit. When the plums have been inside for about a couple of hours, they assume a peculiar puffy appearance. The 'clales' are then withdrawn, the fruit turned by holding an empty 'clale' upside down close over a full one, and then turning them both over. After cooling, the 'clales' are again put into the 'four,' this time at a temperature of about 135 degrees; again withdrawn, turned, cooled, and put in at a temperature of about 170 degrees; and this operation is continued until the plums have been dried. Some dry more rapidly than others, and they are picked out as they are ready. The more slowly the operation is performed, and the oftener the plums are put into the 'four,' the better will be the result.

"When they are ready the plums are sorted out into various grades, according to the number (30, 35, 40, 45, 50, 55, or more, up to about 130), that it will take to make up the French pound, for obviously enough the old French measure is adhered to. They are put into sacks and carried to the markets. Here the merchants come and buy, paying prices varying according to the number of plums required to weigh a pound. Thirty to the pound would be worth about 120 francs the 100 pounds; 40 to the pound, about 100 francs, and so on down to the very lowest grades, which are not worth more than 15 francs. The merchants convey the fruit to large, cool, airy warehouses, where it is thrown into bins, and women at long tables are employed sorting over again much more carefully than before. The various grades are then packed separately into casks, and are sent to Bordeaux, where the finer qualities are packed carefully in bottles or boxes; the inferior are simply exported in bulk.

"About Agen and in the other districts another tree is cultivated, the 'Prunier commun.' This is a round, violet plum, grown on its own stock. The fruit is prepared in a similar manner to the 'Prune d'Ente,' but is very inferior and is only fit for stewing. Enormous quantities are consumed by the peasants in the north and east of France."

### Wood and Coal Ashes.

EDITORS PRESS:—Is wood ashes good to manure grapes and other fruit trees in Tulare county?—GARDENER, Visalia.

EDITORS PRESS:—Wood ashes, as well as plant ashes of all kinds, is intrinsically an excellent fertilizer, since it contains the soil ingredients required by all plants, even though in different proportions. The value of ash varies materially in accordance with the degree of heat to which it has been subjected when made. In general, the hotter the fire, the less active will be the ash as a fertilizer, and if it has been actually melted, as in the vitrified ash that comes from the straw-burning engines, its present value becomes almost null.

In the use of ash it is very essential to see that (particularly when fresh) it does not come into immediate contact with the trunks, stalks or roots. Fresh wood ashes, when leached with water, yield largely an intensely caustic lye, which will promptly attack and corrode the bark or root-crown, much more rapidly than does the blackest of alkali. The lye becomes milder as the ash grows older; and in clay soils, as well as in those containing much vegetable matter (humus), there is much less risk of damage at any time than in open, sandy, or silty soils poor in humus.

In general, ashes should be spread broadcast over the surface of the ground and allowed to be washed in by rains or irrigation, and not placed around the trunks of trees or over the stools of perennials, as is too often done. If plowed in shallow with stubble or weeds, the latter decompose very quickly, and the effect of both is thus improved and quickened.

When ash has been used too freely or too near the trunks of trees, damage may be prevented just as it is in the case of black alkali, that is, by placing land plaster around the tree or wherever the ash appears to be doing damage. Manure also may be used to advantage, but not as effectively as the plaster.

The question of the money value of wood ashes—the price that a farmer can afford to pay—is so frequently asked that it may as well be answered here. The chemical composition of ashes varies considerably, according to the plants, or parts of plants, from which it has been derived; the smaller the wood, or the more of weeds or other herbaceous material there was in it, the more valuable the ash; but paking a broad average, a bushel (say 48 pounds) of wood ashes would, according to the ordinary valuation of the ingredients, be worth about 25 to 30 cents—that is, the valuable ingredients could be bought at wholesale for that amount of money. This does not mean that such will be the value to each individual farmer, for he who does not need the fertilizer will get no return for the time being, while he who needs it badly will get good interest on his investment. Potash and phosphoric acid are

the two substances that one would pay for in ashes. Now potash is rarely wanted in our soils as yet, so the chief value would be in the phosphoric acid, which we need badly and the value of which in average ash may be put at about two per cent, thus making the ash on that score worth about six cents per bushel; ten cents may be taken as the minimum aggregate value for this State, under the usual conditions.

As for coal ash, it is ordinarily not worth transporting to the ground, unless when, in very tenacious adobe, it may serve to render the soil less refractory. E. W. HILGARD.

### California Fruits in Guatemala.

Senor Narcial de los Santos Nieto, the special commissioner appointed by the Republic of Guatemala to visit this State for the purpose of securing grapevines, fruit trees and olive sprigs for transplanting in the Government reserve lately established near the city of Guatemala, arrived here recently, after an extended tour through the State.

The commissioner, speaking to a *Chronicle* reporter on the subject of his mission, said: "The Government of Guatemala has determined to establish an experimental plantation for the purpose of transplanting California products. A grant of 150 acres of highly fertile land about seven miles from the capital city has been set aside for the purpose, together with a money grant of \$10,000 to defray the necessary expenses for procuring the proper specimens. I have been in this State two months, and have secured transplanting sprigs of all the fruits grown here, as well as of wine grapes, raisin grapes and the olive.

"The place selected by the Government for the experimental farm is in the most prolific district in the republic, and is worth at the present market value of property in the capital at least \$50,000. I am perfectly satisfied that the venture will prove not only a successful one, but will be productive of great gain to the people. The sprigs that I shall plant will begin to bear fruit in about seven years from the time of planting, and the total money product of the plantation when in bearing will, according to the average California rates, amount to \$6,149,369.

"I have also great hopes for olive production. The soil at Guatemala is specially adapted to its growth. From my observations I greatly prefer the California olive to the French. I have compared both, and pronounce the California olive oil the purer and better oil of the two.

"The expense of the importation of the graftings will be borne entirely by the Government, and I am confident that great results will follow the experiment."

## THE VINEYARD.

### The Future of the Grape Interest.

EDITORS PRESS:—In your issue of Jan. 3d, I find a paper by J. C. Wood of Ontario, San Bernardino county, which, I think, represents the matter from an erroneous standpoint in both aspects of the case, viz.: Wine production of the southern counties, and also in considering the temperance question generally. Will you allow one of the oldest grape-growers in the country, who planted a vineyard in 1846, and made wine in 1849, to give his views on both sides of the question? I have followed grape-growing and wine-making ever since, in Missouri until 1880, here since 1881. I have tried to look at it justly and impartially, believing it honestly to be the best movement for true temperance which could be made, and during a period of 44 years have seen nothing to shake that belief but a great deal to confirm it.

The commercial and geographical standpoint, if I was located in any of the southern counties, and planting grapes there, I would very likely only plant the best raisin and table grapes. Why? Because in all my travels through the southern counties I have seen but few wines made there that could be classed as fine, light table wines. Let me not be misunderstood. I have seen plenty of so-called wines, Port, Angelica, Sherry and Sweet Muscatel. But I do not call these wines proper, as they contain, by the addition of spirits, from 20 to 24 per cent of alcohol instead of the 10 to 12 per cent in pure dry wine, the fermented juice of the grape, pure and simple, such as our northern counties produce—wines that are light, healthy stimulants, instead of the fiery sweet wines, where the alcohol is disguised under the sweet taste, which are about as heady and intoxicating as brandy or whisky, and perhaps more so, because they are the unwary than these. Instead of assisting digestion, enlivening and invigorating the system, like all true wines should and do, they intoxicate and enervate, fly to the head and leave the system depressed by headache and nausea. If, therefore, I was located in any of the southern counties and determined to cultivate grapes, I would, without hesitation, plant varieties for raisins and table only. There may be locations where fine wines can be made, in some of the foothills; but I confess I have not seen them yet, and I believe the home of the true wine grape to be in the northern counties, where as fine, light, dry wines can be made as anywhere on the globe.

I have no hesitancy in saying that they can be found already in Napa, Sonoma, Santa Clara and other counties; and that as a general thing, our wines, when made with anything like skill and close attention, are much better than the wines of France and Germany, if we except a few of the choicest brands. We are furnishing better and purer wines to-day, and at a much lower price than they. That prices are depressed is a natural consequence of the hasty and ill-advised plantings formerly, and improper handling. We cannot, as a nation, be expected to jump from crude beginnings into perfection at once.

I remember the time, and it is only a few years ago, when our raisin industry was fully as much depressed as the wine industry is now, and when California raisins were a drug on the market. Now all this is changed, better methods of packing and grading have been adopted, and California raisins are driving the imported from the market. Wine-making may be more complicated and require even closer attention, while it takes longer to age and handle the crop. But it will have the same outcome, and the wines of California will acquire even a higher and wider fame than her raisins.

That the phylloxera is making terrible inroads upon our vineyards, as well as the Anaheim disease at the south, we know but too well. But we have the remedy for the former in resistant stocks, and there is not one of our fruits which has not had something to contend with. I cannot see that the grape is more seriously threatened than the citrus industry was before the introduction of the vedalia cardinalis. Both our raisin and wine industries are reviving. Let those who prefer the former make all the progress they can; let the wine-men do the same, and we may be sure of fair returns in the future. It is my firm belief that the grape will always be one of the leading fruits of our State, because it seems to have found its natural home here.

As to the improved varieties for raisins, we have already an improvement over the Sultana in Thompson's Seedling. It seems to be a better bearer and will make better and more even raisins than the Sultana, and also has a better foliage. Mr. J. P. Onstott of Yuba City, Cal., has produced an average of 74½ pounds to the vine for four years, of which 3½ dried make a pound of raisins, making fully 20 pounds of raisins to the vine. I think it is also a good wine grape and shall test it for that purpose next fall. The raisins were awarded a medal at the Paris Exposition. There is also another candidate which may prove valuable, imported by Mr. G. P. Rixford. It is a seedling grape, much larger in berry than the Sultana or Thompson's Seedling, but as only a few vines of it have fruited, its bearing qualities have not yet been ascertained.

The Other Side of the Question—Wine as a Temperance Agent.

There can certainly not be a more zealous advocate of true temperance in the State than the writer. I look upon drunkenness as a crime and think it should be punished as such. In this respect I go farther than even the W. C. T. Union, but I do not believe that they are on the right road if they insist upon total abstinence, nor do I call this true temperance. Temperance in the true sense of the word is not total abstinence. In the truly temperate sense of its meaning we are certainly and should be allowed to use wine, pure juice of the grape, moderately, as the most healthy, the most invigorating and enlivening of all stimulants. If this was not the case, would our Lord, in whose footsteps we all try to follow (and the W. C. T. Union especially, if they intend to be true to their name) have changed water into wine at the wedding of Cana, as a promoter of innocent hilarity; and last, and most sacred of all, instituted it as one of the sacraments to consecrate His memory?

Why should we, then, who can at the most but humbly follow in His footsteps, throw up our noses in contempt at one of the best gifts ever bestowed on mankind? If it was good enough for Him, it ought to be good enough for us, for the best of even the lady members of the W. C. T. Union, I hope, do not pretend to be better than the Savior of all mankind. So from a scriptural standpoint, I think we, who use wine moderately, as it ought to be used, "a little wine for the stomach's sake and for our oft infirmities," have the argument on our side.

But I claim that we have it also in the practical workings. It is a fact, acknowledged by all authorities, that those nations where light wine is the daily drink, instead of distilled liquors, are more temperate, and drunkenness is comparatively more rare with them than in the latter. See the practical workings of the prohibition laws in this country, wherever they have been attempted. See the practical lessons of the last elections in the Eastern States. The Republican party has leaned toward the prohibition side since the last 20 years, and see the admonitory vote it received in November. Ask yourself the question, whether it is right, that I and my neighbor who use wine as it ought to be used, moderately, and as one of the best gifts of God, which should never be abused or taken in excess, should be deprived of its use, because our other neighbor drinks whiskey and other vile stuff to excess, and thereby makes a beast of himself. It is an infringement on personal liberty, unconstitutional, and therefore it will never become the general law of the nation, nor should it be, as long as this country guarantees equal rights to all.

The writer had occasion in the winter of 1880 to '80, to see the practical workings of prohibitory laws in Kansas. The joint meeting of the Missouri and Kansas Horticultural Society was held in Kansas City that winter, just after the prohibition law was passed in Kansas. Kansas City, as every one knows, is in Missouri; while the town of Wyandotte, only seven miles from there, is in Kansas, but connected with Kansas City by a line of street cars. Never before had the saloons at Kansas City and the connecting car lines done so prosperous a business as that winter; and never had the town of Wyandotte had so many cases of drunkenness as then. People would come over from Wyandotte, pay their car-fare, get, as they called it, gloriously drunk, and take a full supply of stimulants home with them, to follow it up for several days. The prohibitory laws of Kansas ruined the breweries and wineries in that State, kept immigration from its borders, and because its people became tired of this infringement on their liberties and also on their prosperity and morality, Kansas, the most steadfast Republican State in the Union, polled a Democratic majority at the last election.

Look at the practical workings of total abstinence in our households. I could name a great many of our winemakers who forbid their sons the use of wine while they were under their control. But human nature is so constituted that "forbidden fruit tastes the sweetest," and the result of all this has been invariably that the boys, when they were at liberty to follow their own inclinations, became the worst drunkards. I have brought up a family of two boys and three girls. All of them had free access to wine whenever they felt like drinking. The boys have charge of some of the largest wine-cellars in the State, and none of them have ever been the worse for liquor. I do not wish to be uncharitable. I give my friends of the prohibition movement credit for good intentions; but I think they are on the wrong road. I believe that we both wished to abolish drunkenness, that most fearful bane to all households who are under its influence. But I believe sincerely that this can only be done by making wine, the most harmless of all stimulants, accessible to every one by establishing decent wineroms, not saloons, as they are conducted to-day, where fiery liquors are dealt out at the bar and a small glass of an apology for wine is sold at ten cents per glass; but social-rooms, where good, wholesome wine is sold by the bottle at a fair price, and two or three can sit down to a table and enjoy it together instead of walking up to the bar, as the custom now is, and "treat" each other as they call it, by pouring down a couple of glasses of fire-water. This "treating," which has become the universal custom throughout the country, is one of the first causes of intemperance, as I look at it. Four or five friends enter a saloon to take a "social glass," as they call it. One treats, the next does not wish to be behind, and treats again, and by the time this goes round, they all have more than they can well stand. I believe with all the friends of true temperance in the abolition or restriction of the saloon as it now exists, of the treating custom, and this we can only accomplish by a rational, temperate and liberal course. Let light wines take the place of the fiery whiskey and brandy, the winerom the place of the present saloons, light wine the place of the enervating tea and coffee in our families, and we will have a truly temperate people. To accomplish this object, no one can be more in earnest than your friend and correspondent,

GEORGE HUMANN.

Oak Glen Vineyards, Napa Co.

### A Vine Puller.

EDITORS PRESS:—I have this day seen a grapevine extractor that is so simple, so novel, to me at least, and at the same time now owned by every vineyardist (but he probably does not know it), that it is worth describing. It is nothing more than the back running-gear of a common lumber wagon, including the reach, for a lever, and two short pieces of log-chain, say about two feet in length, with hook in one end and ring in the other. Lightly nail or tie a strip of inch board on top of the bolster, and another on the outside to protect the paint, then loop one piece of the chain about the reach inside the axle-tree, bring the loose end over to hang behind. One man now raises up the front end of the reach, another loops the ring of short chain No. 2 over the stump of the vine to be taken out, and places the hook in the link of the chain on the wagon, high up as possible. Bring down the lever and hook up the chain two or three times and the job is done. I saw vines taken out at the rate of more than one a minute by this simple process.

St Helena.

R. E. WOOD.

### Transplanting Old Vines.

EDITORS PRESS:—Can any of your readers inform me if one-year-old rooted vines—Muscatel, "Gordo Blanco"—planted in nursery rows two years ago, and which fruited well last season, will give good results if now transplanted to the vineyard?—NOVIOE.

SOMEBODY found a piece of gold in the crop of a turkey raised on a ranch a mile from Calistoga, Napa Co., and now prospectors are trying to find the place where the turkey poked it up.



## PATRONS OF HUSBANDRY.

In our Rural Press Official Grange Edition, issued every week, will be found additional matter from this and other jurisdictions, of interest and importance to Patrons. Any subscriber who wishes can change free to that edition.

## The Master's Desk.

R. W. DAVIS, W. M. S. G. OF CALIFORNIA.

This seems to be the year for all kinds of farming in California. No doubt the acreage is larger than for many years past. Perhaps it is the largest ever sown in the State. Now why not get at the work of renewing the Grange crop? This is the time. Let each member in the Order bring in one new member and see how the Grange crop will grow! It is easier to get a new member in the Grange than it is to plow and sow an acre of ground; and yet, if we can get one new member for each new acre of land sown, the harvest to the farmers will be much enlarged. Don't you believe it?

Won't the members of the Grange send in more copy to the Grange organ, the RURAL PRESS? It seems the members of the Alliance are outwitting us of the Grange. What's the matter, fellow-Patrons? Clean your pen, or get a new one, and at it again.

The Grange dinners and Harvest Feasts which the Master has been enjoying lately have not brightened the pen with which these words are written. But I tell you they have added lots of joy to the "inner man."

Being frequently asked, "What is the force of a dimit card?" let me here say that a dimit simply disconnects one from a subordinate Grange. While the holder of a dimit is amenable to the rules and laws of the Order, and is under the jurisdiction of the subordinate in whose territorial boundaries he is living, yet he is not a voting member of that subordinate till he affiliates with it. A person holding a dimit may be admitted to any subordinate as a visiting member, provided he is in possession of the Annual Word. Of course the W. M. has no authority to impart the A. W. to any dimitted person. Patrons holding dimitts may be admitted to a subordinate Grange by paying such fee as the subordinate may require, but in all cases for affiliation the application must be referred to a committee and lie over till next meeting. A majority vote will elect. It is not necessary to confer the degrees on a person thus elected. He should, however, sign the Constitution and By-laws. A dimit card, regularly issued, duly signed, and under seal, is good till used. When application for affiliation is made, the dimit card should accompany, be attached to and become a part of the application, and if the applicant is elected, the dimit should be filed away with the application. If the application is rejected, the dimit should be returned to the applicant.

Members of each subordinate Grange in California ought to pass a resolution and send it under seal to Leland Stanford and George Hearst, United States Senators from California, demanding the election of United States Senators by direct vote of the people. Now is the time to act. A new Congress takes hold of affairs the 4th of next March.

It is said that a \$4,000,000 syndicate of foreign capital is "gobbling up" California timber-land. Patrons, keep an eye out for such things!

We hope soon to be able to report much progress in the line of Farmers' Institute work. Where shall the first Institute be held? Let's hear from somebody, everybody!

Report says that negroes are to do the work on many California fruit farms this year, in lieu of Chinese labor.

Brothers, plant some garden seeds about now. Sisters, plant a few choice flower seeds soon. The vegetable garden and the flower garden are two of your best friends. They cost but little, yet they furnish much. The children will enjoy both gardens, and they may be taught lessons of industry and economy in the garden better than anywhere else.

At the next session of the State Grange we may expect something new in the line of public entertainment. Some of the enterprising members of the Order in Sacramento county have promised to give us a novel entertainment. For further particulars, see small bills soon to be issued. In the meantime, let others emulate the good promises made by Sacramento county Patrons and be preparing essays, readings, songs, concert music, etc. Let's make the session of 1891 the best ever held in California.

Three farmers—Messrs. Taubeneok, Cockrell and Moore—hold the balance of power in the Illinois Legislature on the United States senatorial question. Let us keep an eye that way and see if they will select Bro. David Hunter to the senatorship! He is a farmer and is reported to be honest, competent and deserving. May the best man win!

The successful farmer of the future must

know his business; he must cultivate a bright mind; he must have an observing eye, an attentive ear, two industrious hands, plenty of pluck, keen knowledge of men and of ways, and he must be willing to labor long hours and every day. To such men the farm offers rewards not only of wealth, health and influence, but of honor, happiness and comfort. Let young men and young women remember this.

## Worthy Master Hayes' Meetings.

Oregon's "Live Master" Among Us.

Bro. H. E. Hayes telegraphed from Ogden, Jan. 27th, that he would speak at

Auburn, Thursday, Jan. 29.

Deputy Still has made arrangements and advertised for a public meeting of farmers and others to receive and listen to the stirring words of one of Oregon's foremost "true blue" Patrons. Bro. H. will no doubt have much of interest and benefit to tell our people wherever he speaks. He is a good observer, plain, modest and progressive speaker. Our distinguished California visiting Patron is very worthy of, and should be met by, a large audience wherever he speaks. His appointments should be thoroughly and widely advertised through the Granges and local papers, and farmers gathered together for conference in their own interest from neighboring districts.

At Stockton and Waterloo.

He is to speak at an open meeting at Stockton, Jan. 31st, and at Waterloo in the evening—Past Master Overhiser having made arrangements therefor, as will no doubt be announced in the Stockton dailies.

At Pacheco.

Deputy Lecturer Loucks has made arrangements for Patrons, farmers and their friends in Contra Costa county to give Bro. Hayes a hearty reception at a public meeting to be held on Tuesday, Feb. 3d, at 1 o'clock P. M., in Odd Fellows' hall.

At Two Rock.

On Thursday, Feb. 5th, Two Rock Grange, Sonoma county, will hold a public meeting, inviting all farmers and their friends to listen to Bro. Hayes.

At Yuba City.

Bro. Hayes is to be greeted by Veterans Ohleyer, Frisbie, Walton and others, who will make his coming widely known, and gather together many Patrons and other earnest men and women from Butte, Colusa, Sutter, Yuba and adjoining counties, for a grand meeting on Saturday, Jan. 31st.

Oregon and California

Stand shoulder to shoulder in the Grange cause, and should be a unit in all good undertakings. Let us grasp warmly her representatives' hands and cultivate her friendship. Fresh from the National Grange, several State Grange meetings, and journeying from State to State and across the continent, his notes and observations will have extra interest to our usually stay-at-home farm folks.

Before leaving, we hope to announce Bro. Hayes for county or district meetings in Sacramento, Alameda and other counties, trusting his stay may be sufficiently prolonged therefor.

## The Grangers' Bank.

The annual meeting of the stockholders of the Grangers' Bank, which was held on Jan. 13th, shows that the institution has passed another of its long series of prosperous years. A dividend of \$4.20 per share on the capital stock paid in was declared out of the earnings, amounting to \$45,000, the balance being carried to credit of the reserve fund.

The old Board of Directors was unanimously re-elected, viz.: A. D. Logan of Colusa county, I. C. Steele of San Mateo county, C. J. Cressley of Merced county, Thos. McConnell of Sacramento county, Seneca Ewer of Napa county, J. H. Gardner of Solano county; Daniel Meyer of San Francisco, Uriah Wood of Santa Clara county, H. M. La Rue of Yolo county, T. E. Tynan of Stanislaus county, and H. J. Lewelling of Napa county.

The election of officers for the ensuing year next took place, resulting in the re-election of the following officers: A. D. Logan, President; I. C. Steele, Vice-President; A. Montpelier, Cashier and Manager; and F. McMillen, Secretary.

The stockholders evidently believe that the institution is in good hands, and the accomplishments of the officers, as shown in the reports from year to year, evidently sustain their judgment.

## Waterloo Grange.

EDITORS PRESS:—The following resolutions have been adopted by Waterloo Grange:

WHEREAS, We believe the Conger Lard bill to be a necessary measure, highly desirable as a law; therefore be it

Resolved, That we are in favor of said bill and fully alive to its importance.

Resolved, That we urge upon our Senators the necessity of using their influence to secure its passage through the upper house of Congress.

Resolved, That a copy of these resolutions be sent to the RURAL PRESS for publication, and to each one of the Senators from California.

Yours fraternally, C. A. MERRILL, Sec'y.  
Waterloo Grange Hall, Jan. 24.

## Farmers' Institute.

EDITORS PRESS:—An interesting meeting of the Farmers' Institute was held in the Christian church, Hanford, on Thursday afternoon, the 8th inst, after the adjournment of Tulare County Alliance, as arranged by the Committee of Permanent Organization, N. W. Motheral, John Tuohy, J. W. Mackie, I. H. Thomas and A. J. Pillsbury.

N. W. Motheral was called to the chair, and J. W. Mackie was elected Secretary. The subject for discussion was a continuation of that of the meeting held in Tulare Dec. 11th: "What, How and When to Plant."

I. H. Thomas was, as before, placed on the witness-stand and subjected to a severe questioning by the Chairman and others. He was asked how he would advise the owner of a 40-acre field, properly prepared for an orchard, to plant it. He advised ten in peaches of three varieties, in the order of Foster, Susquehanna, or Muir, and Late Crawfords in equal divisions; ten in raisin grapes, either Muscat of Alexandria or Muscatel de Gordo Blanco; and 20 in prunes which he claimed to be the coming fruit in California for profit.

Considerable discussion followed as to the real difference between the two varieties of grapes above mentioned, following nearly in the same path as it did on Dec. 11th and reaching the same conclusion—that practically there was no difference. Opinions also varied as to the proper distance between vines, Mr. Thomas recommending 12x8, as 8x8 was too close. The chairman stated that in Malaga vines were planted in six, seven and eight foot squares and prevented the exhausting of the soil by fertilizing. One gentleman said that his most prolific and best vines were 3x6 apart; 12x6 was also recommended, with the wide rows running east and west.

The question of alkali was next introduced. Black alkali—carbonate of soda—is converted into Glauber salts by the application of gypsum, sulphate of lime, and ceases to be injurious to the growth of plants.

Major McQuiddy said he had discovered gypsum in large quantities in the adjacent western hills, and as soon as certain arrangements could be effected, he would have it placed in the market at purchasable rates.

Mr. Leoni was called on to tell the Institute what he knew about pruning vines. Advised pruning from the middle of January till about the beginning of March; preferred the beginning of February; that black knot was not as likely to follow late pruning as early, and thought bleeding prevented black knot. When bleeding was prevented by early pruning, Nature's recourse to get rid of redundant and refuse matter was through fungoids till leafing gave a natural process.

On healthy vines of average growth of four years he left from 6 to 12 spurs, according to size and other things to be determined by good judgment, and left two buds, as only the two terminal buds would grow. It was stated that that was a seemingly opposite condition of bud growth in Fresno—that there it was the buds nearest the vine which grew. The cause of this was hinted at as coming from the method of pruning, when the slope of the cut was above instead of beneath, and so causing the sap to flow on the spur and destroy the bud. Mr. Leoni answered first when one inch growth had been made and again when the grapes were formed; this was to counteract the evil effects of mildew such as causing bloom to fall. He made the top of the crown about 16 inches from the ground, but on sandy soil lower and closer.

The statements made by Prof. Hilgard at the Dec. 11th meeting were recapitulated regarding alkali, its source, effects and cure. Some attention was paid to the future duty of drainage and the placing more reliance on persistent cultivation and less on irrigation.

On motion, the Secretary was instructed to correspond with the Secretary of the State Alliance, suggesting the idea of requesting the county Alliances to have a Farmers' Institute meeting to follow in the wake of their quarterly meetings, and also with the Secretary of the State Grange, so that the co-operative aid of the Grange may be had with the Alliance in such meetings.

The meeting then adjourned to meet after the Alliance county meeting in Goldman's hall, Tulare, which meets on the first Wednesday in April. Subject for discussion will be made public in due time.

## Bro. Hayes at Auburn.

Deputy Lecturer Still writes from Highland Ranch, Jan. 22:

All are glad to hear that we are to be favored with a visit from Worthy Master Hayes of Oregon. I have made arrangements for a place of meeting in Auburn on Jan. 29th, as you suggested; time, one o'clock sharp. Have put up hills in every direction through the country; will write to W. M., Davis to come if he can. I will try to get a list of names for the PRESS. Magnolia is solid on all legislative questions proposed by the State Grange, and will act accordingly. Petitions and letters will be sent to that body requesting them to legislate in such a manner as to give us an equal chance with other vocations.

Weather is fine, seeding nearly done, and grain that is up looks fine. Fraternally,  
V. W. STILL.

## Alabama State Grange.

We have received, through the courtesy of Sister Florence Gilmer, Secretary of the Alabama State Grange, P. of H., a copy of the Proceedings of the Eighteenth Annual Session of that body, held at Dothan, Henry county, July 29 and 30, 1890. The pamphlet is a neat octavo, well printed, and is from the press of Bro. Thos. J. Key, State Lecturer, and also publisher of the Sheffield *Agriculturist*.

Worthy Master Hawkins, in his annual address, made the following happy allusion to California and the recent session of the National Grange:

I need not tell you, for you have read of the grand success of the last session of the National Grange, nor of the imposing reception by the State and city officials—of the honorable and distinguished recognition of the dignity and importance of the Grange as an organization conferred upon it by the great State of California—supplementing an invitation by an appropriation of \$10,000 out of the State Treasury to be expended in entertaining the delegates during their stay in the State. In this connection, it is proper to remark that California is not only a beautiful State, but a great State—great in the wealth of her mines, far greater in the wealth of her agriculture, but greater still in her strong intellectual men and her beautiful and cultured women. These are they of whom we speak when we say California is a great Grange State.

In the annual address of the State Pomona, Sister L. A. Hawkins, she paid the following glowing tribute to the women of the Pacific Slope and urged her Alabama Grange sisters to emulate their example:

Now for our sisters of the Pacific Slope. You may sing the praises of the brave forty-niners, who went through untold hardships in that barren land of gold and starvation, who finally gave up their frantic search after the precious metal, to irrigate and till the soil, that now blossoms like a second Paradise. But I must believe that the women of California have borne their full share of the burden, when I see them so eager to take hold, and so untiring in their labors to beautify their homes and be an honor to their State. We made the acquaintance of two young ladies on the Committee of Entertainment, who had come to California with their widowed mother ten years ago, and bought 20 acres of grape land, had it planted with vines, and after that did all the work except the plowing. They picked, packed and marketed their own grapes, even to nailing up the boxes; trimmed their own vines in the fall and kept them in good order; and in five years they had paid for their land, and in ten years they had built a beautiful cottage and bought a good horse and wagon. They were nice, quiet-looking girls, with rather brown hands, but were in every way ladylike and well dressed.

Another dear sister, who went from Barbour county, Alabama, saw her husband struggling, first as an itinerant preacher, then as an editor, to maintain a growing family, took boarders, until she saved money enough to buy a few acres, 20 miles away, at the foot of a mountain—planted it in oranges and apricots—took her large family of boys and girls to the country to work, and now owns a large farm and a beautiful city home; has four daughters who married well—one to the son of the present Governor of California. All of these good sisters are enthusiastic Grangers. You will find it the case in every land, where women are not ashamed to work, the Grange is on a boom and the country is flourishing.

## Connecticut State Grange.

This body assembled in seventh annual session at Bristol, Jan. 15th, Past Master J. H. Hale presiding. Delegates from 104 subordinate Granges were present.

A committee of three was appointed to consult with like committees from each of the other New England State Granges, to arrange for an annual interstate picnic similar to that held at Williams' Grove, Pa.

The State Pomona recommended that Sept. 15th be observed as Pomona's Day in each subordinate Grange, and that a fruit convention be held in each town on that day.

A report was adopted declaring it inexpedient to change the experiment station from Middletown to Mansfield.

The afternoon session was well attended, and many excellent speeches were made.

In the evening, the sixth degree was conferred upon a class of 140. The elaborate floral decorations of the hall, the work of the members of Bristol Grange, elicited admiration from all present. Some of the most prominent New England people were in attendance.

At the closing session, on Friday, Richard Davis of Middletown was elected a member of the Executive Committee for three years.

Past State Master Hale was appointed a special committee on legislation regarding the Storrs school.

The Committee on Pure Foods submitted resolutions, which were adopted, indorsing the Conger Lard bill and urging the United States Senate to pass the same; indorsing the Pure Food bill and requesting its passage by the House; and demanding that the State Legislature prohibit the manufacture and sale of oleomargarine.

The Committee on Agriculture presented resolutions, which were adopted, urging Congress to appropriate at least \$5,000,000 to the Department of Agriculture, and calling the attention of the Secretary of Agriculture to the importance of increasing the appropriation for the Division of Pomology.

After considerable routine business, the Grange adjourned.

A banquet was held in the evening, Worthy Master Hale presiding as toast-master, at which some 250 of the Patrons and citizens of Bristol were present.



## FARMERS' ALLIANCE.

SUBSCRIBERS wishing fuller information of the Alliance can have their names changed to the Grange Edition of the RURAL PRESS free, much to their advantage, this department being continued in the same.

### Farmers in Council.

OMAHA, Jan. 27.—The eleventh annual meeting of the Farmers' National Alliance convened here this morning. [This is a separate organization from the National Farmers' Alliance and Industrial Union to which the F. A. & I. U. of California belongs.—EDS.]

President Powers advocated the general organization of trades unions and Knights of Labor with the Alliance. No effective arrangements of a national character for the conduct of the business industries of the country could be made and prove of benefit without being in effect the laws of the organization which adopts them. To prevent general and continual conflict with the laws, the Government itself must be controlled by these societies. For the attainment of this object, Powers opposed the new political party as not practicable for industrial organizations and as the platform on which the party might be formed would soon become obsolete. He favored independent political action and believed in men pledging themselves to vote for good men or good measures. He outlined a plan for action as follows: Let the Alliance discuss and agree upon such measures as it deems expedient to form a basis for political action this year and next. Place this by correspondence before the other great industrial organizations, and, with their concurrence, let a convention be called to compare views and adopt a national platform, a concise set of principles which can be cordially supported by all. Publish them to the world; disseminate them and prepare for the great struggle in 1892.

Powers thought the subjects on which those principles should be founded were included in the following list: Money, land, transportation and ballot reform and suppression of any vice tolerated by law to the peril of our national prosperity. He dwelt at length on the money question and advocated the lending of money by the Government to the working people without interest. If money was thus furnished by the Government, its hoarding would soon be stopped and all the money would soon be in circulation.

He urged the Government to take the railroads into its own hands and furnish the service for the people, which corporations had failed to do. This could be brought about either by purchase or confiscation. Land reform was only lightly touched on. Powers advocated taking the right of franchise from the ignorant and vicious and giving it to women.

"There was a time when corporations and moneyed oligarchies looked upon us with contempt. That condition is changed. The enemy is already marshaled for battle. We must conquer or suffer ignominious defeat."

An effort will be made to form a co-operative union, and a conference will be held at Chicago, Feb. 9th, with the Farmers' Mutual Benefit Association.

### Knights and Farmers Meet.

WASHINGTON, Jan. 22.—Representatives of the Knights of Labor, the Colored Farmers' Alliance, the National Farmers' Alliance, Farmers' Union and Citizens' Alliance began a meeting here to-day in accordance with the instructions of the Ocala Conference. Representatives of three other organizations are expected to-morrow.

The plan of agreement looking to a confederation was drawn up. It provides for a joint committee of five from each organization to represent the confederation. The St. Louis platform shall be the basis. Each shall stand pledged to assist, when possible, in all local efforts to better the condition of the people. The joint committee shall have power to admit other organizations with a similar object. Each organization shall be bound to support the plans agreed upon by the joint committee. Adjourned until to-morrow.

### From Secretary Pedlar.

The following is from a personal letter dated Gilroy, Cal., Jan. 22:

Requesting information in regard to Alliance interests to be sent is an every-day occurrence. Inquiries come up from all parts of the State, and even Oregon, asking for assistance in organizing. Over 75 Alliances have been organized since Nov. 22d, and only a few of the organizers commissioned have been at work. The outlook for a grand uprising and uniting of the toilers and producers could hardly be more promising. Yours, etc., C. W. PEDLAR, Sec'y Cal. S. F. A. & I. U.

Bro. Pedlar enjoys a good reputation for being a very prompt Secretary and correspondent.

BRIGHTON ALLIANCE.—Bro. Geo. Wilson writes from Florin, Jan. 24: Bro. Hines organized an Alliance at Brighton last evening, and will meet with Oak Grove Alliance to-night to complete the organization. He will return on Feb. 14th and form a County Alliance. Many Patrons are joining, and, with the strength of the two organizations, the combined body will soon become a potent factor in the land.

## San Luis Obispo County Alliance.

In our last issue, owing to lack of space, we gave only a bare outline of the recent proceedings of the above body; but we herewith present a fuller account of its doings.

The following delegates were present:

Keyes, E. F. Young; Fairview, C. H. Wood; Estrella, Lorenzo Jared, E. H. Fritzinger and W. N. Sinclair; Branch, Frank Conrad and O. M. Pence; Arroyo Grande, J. V. N. Young, D. F. Newsom, Anna Shinn and Anna Brar; Mammoth Rock, A. T. Foster; Oak Flat, J. Botts, A. Sheldon and J. Tidrow; Las Tablas, R. A. Mayhall, W. H. Morton and Otto Wyss; Ocean View, F. J. Jenks and Thos. Stevenson. Chas. Bowden, Alternate; San Miguel, L. D. Murphy; Maklon Thorn, J. L. P. Smith and Calvin Beaveis; Paso Robles, J. D. Lindner; Union, J. Baies; Bee Rock, Neil Kennedy, Chas. Forbes and Andrew Branch; Huasna, M. D. Price; Dry Creek, R. L. Wilson; Starkey, Chas. Barlow and Chas. Tobey; Summit, R. C. Heaton and Wm. Sinclair; Wheatland, M. V. Whittington, C. F. Bondshu and J. D. Lindner.

The report of the Committee on Order of Business was adopted, after which, resolutions to the following effect were adopted:

Declaring the loaning of Government money to National banks at one per cent a monstrous fraud on the people; indorsing the National Alliance resolutions; favoring the abolishment of the State Board of Railroad Commissioners and the Viticultural Commission as useless and expensive; denouncing the so-called equalizing of assessments; favoring the consolidation of the State Senate and Assembly into one body, by constitutional amendment; recommending the purchase of goods through the Order; discontenancing the support of newspapers hostile to Alliance principles; and fixing representation of sub-Alliances to the county organization at one delegate for each 20 members, and one additional delegate for each fraction of over 20 members.

The Alliance tendered a unanimous vote of thanks to the San Miguel Messenger for many favors extended, and urged all members to subscribe for the paper.

A committee was appointed to confer with the Monterey County Alliance on important business.

After the reading of the report of Business Manager Stevenson, an adjournment was had till 7 P. M., when an open meeting was held and addresses were made by several members, and an amusing poem was recited by T. J. Jenks.

At Wednesday's session, the Secretary was authorized to draw a warrant for \$34.60 in favor of the State Alliance for dues.

THE RAILROAD BILL IN CONGRESS.—The Farmers' Alliance and Industrial Union of California have united in a petition to the Senate and Assembly of this State, now in session at Sacramento, asking those bodies to unite in memorializing Congress, in the name of the State of California, not to pass the bill now before the United States Senate, extending the term for the payment of the Pacific Railroad debts to fifty years, at a rate of interest of 2 per cent per year, or any similar bill. The reasons for this memorial are set forth in the Alliance and Union petition at considerable length. The petition and the accompanying argument sustaining its propriety are worthy of the most careful consideration of the Legislature of this State. We shall make a more full reference to the same at an early date. The able argument and prepared petition by President Cannon, of the Alliance, is signed by himself and the Presidents of County Alliances.

## FRUIT MARKETING.

### Annual Report of the California Fruit Union.

Mr. President and Members of the California Fruit Union: To-day we assemble for the sixth time to review the work of the season but just closed, to select those who shall have charge of the affairs of the organization during the year to come, and, possibly, by a generous expression of our various opinions, to correct any method that may have crept into the manner of conducting the affairs of the Union which may appear to the majority a wrong course to pursue.

The retiring Board of Trustees and executive officers present the following report of the season's work with a degree of pride, as it shows that in their hands the work of the Union has not been allowed to lag, but, on the contrary, the progress made has been very extraordinary. With the books showing a business conducted amounting to nearly a million and three-quarters for the seven active shipping months of the year—a business requiring the handling of nearly 1400 carloads of fruit, together with 600 or so cars forwarded by our various members, who are working in complete harmony with us, yet sending carloads of fruit to quite a number of cities where we have no agencies established, we have a grand total of but a few short of 2000 out of about 3300 cars shipped by the entire State—which can, with no fear of contradiction, lay claim to whatever there may be of distinction in having forwarded, through your co-operation, nearly two-thirds of the entire green deciduous fruit shipments of the State.

How profitably this immense business has

been conducted, you who have furnished the fruit can best answer for yourselves.

As the season was just opening, at a meeting of the Board of Trustees held May 17th, the resignations of President Platt and Trustee Gregory were received and accepted by the Board.

The number of our shippers has steadily increased, so that where we had 173 consignors in 1889, we have 322 in 1890, while the number of cars forwarded has grown from 991 two years ago to 1373 during the season now closing—a gain of 382 carloads. These cars have been furnished at the 31 different shipping-points and dispatched to the various agents, as shown by the following tabulated statement of

THE SEASON'S SHIPMENTS.

	1890.	1889	1888
Vacaville.....	254	171	163
Loomis.....	6	.....	.....
Newcastle.....	138	33	33
San Francisco.....	2	.....	.....
San Jose.....	290	206	97
Winters.....	109	23	25
Sacramento.....	196	278	346
Santa Barbara.....	2	.....	.....
Marysville.....	3	.....	6
Mullen's Switch.....	3	.....	.....
Chico.....	1	.....	.....
Shellville.....	1	18	.....
Suisun.....	68	47	11
Fresno.....	2	.....	15
Davisville.....	26	22	24
Martinez.....	10	9	.....
Fowler.....	9	.....	.....
Tulare.....	25	.....	.....
San Lorenzo.....	28	58	33
Florin.....	59	32	.....
Colfax.....	4	4	12
Malaga.....	3	.....	.....
Natoma.....	56	52	29
Elk Grove.....	1	5	.....
Bakersfield.....	24	.....	.....
Sonoma.....	25	.....	.....
Wrights.....	11	.....	19
Haywards.....	1	.....	.....
Cordelia.....	5	.....	11
Manlove's Switch.....	10	.....	.....
Pleasanton.....	1	.....	.....
Blacks.....	1	.....	.....
Napa.....	5	.....	.....
Penryn.....	6	.....	7
Mayhews.....	11	17	.....
Portland.....	2	3	.....
Santa Rosa.....	.....	6	.....
Woodland.....	.....	2	.....

Total No. carloads for seasons . 1,373 991 851

Distribution of carloads for season 1890: Chicago, 828; New York, 136; Boston, 116; Minneapolis, 74; Omaha, 73; New Orleans, 58; St. Paul, 39; St. Louis, 32; Louisville, 10; Kansas City, 7; making a total of 1373.

Our shipments for the year have been divided as follows: One hundred and ninety cars forwarded in special trains; 476 by passenger trains; 258 by freight and 449 by refrigerator cars, which mainly received freight service.

Upon entering upon the record-books of the union some 11,000 duplicate accounts of sales, it is found that 578,232 boxes and 234,617 crates have been handled for us by our various agents. The gross sales on these have amounted to \$1,501,023.56, out of which there has been deducted for freight, \$620,688; cartage, commission and cold storage, \$158,438.58—a total of \$779,126.75, leaving \$721,896.81 as net returns from these shipping, while we have still nearly 100 cars of late pears, etc., yet to hear from, which will swell the amount of the gross sales probably \$100,000 more.

You have all become so familiar with the condition of the Eastern market during most of the past season that it is unnecessary to speak of the scarcity, in fact almost complete failure, of all local fruits there—suffice it to say that the market competition of the home-grown product to our California fruit amounted to absolutely nothing until the ripening of their grapes began, which was about the middle of September.

The prices realized in all of the three large cities, Chicago, New York and Boston, have often been remarkable, while the season's averages at all points have been quite satisfactory.

The early shipments of cherries were most discouraging, as the fruit arrived in extremely poor condition and sold very low, in many instances bringing the shipper out in debt. These circumstances served to very materially cut down consignments. We are glad to say, however, that those who continued to send this delicious fruit forward were more fortunate, as all the later shipments arrived in better condition and sold extremely high, thereby causing the prices realized on the total consignment to be, in the main, more satisfactory. The final car of cherries, which was sold in Chicago June 25th, brought the largest returns of any car ever forwarded through the union.

All other fruits carried and sold remarkably well until grape shipments began, when exactly the same state of affairs was experienced as with the cherries, only not to so great an extreme. All the earlier and by far the larger portion of the consignments carried very poorly and sold correspondingly low, while the unfortunate shipper has only the poor satisfaction with which to console himself of knowing that had they carried ever so well and been placed upon the market in perfect condition, prices most surely could not have ruled high, as the Eastern grape crop was an extremely heavy one and all the markets were filled to overflowing with local fruit, great quantities of which were sold at prices less than the cost alone of transportation on our product.

Our shipments have embraced all the varieties of deciduous fruits grown, among which might be mentioned two full carloads of persimmons from Santa Barbara.

The season, although somewhat backward in opening, has been correspondingly late in closing. Where in 1889 we started a car May 18th, this year the first car was loaded about equally

by Vacaville and Newcastle, and left the State May 21st, while on Nov. 30th cars were loaded with grapes at both Wrights and Vacaville. These, being refrigerator cars to insure safety against frost, were forwarded by slow freight, and arrived so that they were sold in Chicago Dec. 19th and 20th, from which it will be seen that we furnish our fruits, grown in the open air and fresh from the trees and vines, to the friends on the less favored side of the continent, from May nearly to January, or about eight out of the 12 months of the year.

Some action should certainly be taken to impress upon the minds of the different railway companies benefited by our shipments, the extremely urgent necessity of building, during the present winter, at least a thousand new fruit cars, that they may be all ready for next season's operations.

To one unacquainted with the facts, it may seem strange that with the number of cars of the various lines equipped for the fruit service, there should be any difficulty in securing proper cars upon very short notice; but such is only too truly the case, as during the past season there were at times absolutely no cars to be had.

In the matter of time required by the various railway companies in which to deliver our cars, this has been by far the worst season we have ever experienced. That a car should arrive on scheduled time has been the exception, so that from July to the end of the shipping season one would scarcely go amiss should they say that every car was from several hours to several days late on arrival.

Cars have been as many as 22 days in transit, causing in many cases heavy losses to the shippers, and had the yield in the East been even an ordinary one, no one can estimate the losses these ever-occurring delays would have caused our consignors.

So common were the late arrivals that it was simply impossible to so time shipments that cars would not reach their destination Sunday mornings, or to so arrange that two trains shipped on different days would not arrive in the East within a few hours of one another. In fact, this was several times the case, so that there entered into the lottery of Eastern shipping another factor with its percentage largely on the reclamation side.

It might not be out of place to state that after a thorough investigation of the causes leading to these vexatious delays and an endeavor to ascertain to which of the trunk lines the responsibility for the same belonged, it has been found that with comparative few exceptions the detentions have occurred east of Ogden, thus relieving, in a great measure, our local lines from the severe criticisms with which we must certainly address the other roads.

The management has taken up the matter of claims for losses caused by such poor delivery, and expects soon to be able to so adjust matters as to make it, in a measure, satisfactory to all concerned.

Some 43 new names have been added during the year to our list of stockholders and the paid-up stock now numbers 14,162 shares.

Financially the union was never so prosperous as now. With all debts paid and nothing outstanding, there still remains in the treasury some \$34,000 as the result of the season's work. The receipts and expenditures can be seen by examining the following

YEARLY STATEMENT.

Office expenses.....	\$ 1,614 49
Profit and loss.....	12,657 97
Salary.....	6,460 42
Traveling expenses.....	1,468 71
Office fixtures.....	660 75
Telephone.....	365 60
Freight and loading.....	250 57
Telegraph account.....	2,881 10
Taxes.....	31 25
Bank account.....	33,916 92
Cash on hand.....	430 00
Total.....	\$60,737 78
Stock account.....	\$15,174 25
Reserve fund.....	217 69
Sinking fund.....	648 05
Rebate No. 2.....	185 11
Dividend No. 1.....	94 16
Dividend No. 3.....	207 38
Rebate No. 3.....	314 91
Dividend No. 2.....	168 42
Eastern agents.....	43,728 21

Total.....\$60,737 78

At a meeting of the retiring board, held yesterday, by unanimous vote the reserve fund received \$100 additional. A dividend of six per cent was declared due and payable at once on all fully paid-up stock, and a rebate of 2-10 per cent on the gross sales of all members shipping through the union was made, thereby reducing the commission paid by each consignor to 7-9-10 per cent.

These several disbursements will foot up about \$32,500, thus disposing of all the available funds on hand, as the policy of each successive board has been to allow each year to meet its own expenses, thus enabling them to pay out in the form of dividends and rebates all the funds in the treasury at the time of the recurring annual meetings, retaining only the amounts due members for previous divisions, which they had not as yet seen fit to collect, and the reserve fund.

Finally, bespeaking for the incoming board and the new officers, which may be elected, the same hearty support you have accorded those who are now about to resign their charges, and trusting that we all may be spared to reassemble Jan. 20, 1892, we close our report of the work of the California Fruit Union for the season of 1890.

H. A. FAIRBANK, Secretary.





### The Vacant Farm-House.

It stands alone against the hills, the valley slopes below,  
And in the distance to the east the restless billows flow.  
There is the barn, but cattle-low comes from the stalls no more;  
Long since those hinges, rusted now, swung open that old door.  
And half-way 'twixt the house and barn a leaning wood-pile stands,  
A chopping-block, scarred by the ax, long since untouched by hands.

There are the fields, unplowed, unsown, where yeta child I played  
And watched my uncle drop the corn, in hills so nicely made,  
The orchard's gray and mossy now, the russet tree is old  
Beneath whose limbs we all could pluck the apples good as gold.  
The birds are now sole rulers of the dear old cherry trees,  
The lilacs by the east room still give fragrance to the breeze.

And now the dial-plate of time my thoughts its shades retrace,  
And once more bring that goodly time with each familiar face.  
The old barn door is open now, my uncle's sitting there;  
The sun shines on his checkered frock and on the old red chair.  
To help him shell the beans, I take my seat upon the floor,  
I listen to his stories and beg him tell them o'er.

The pumpkins big were laid in line, and turnips piled near by,  
And waiting for the thrashing flail, there lay a heap of rye.  
And then before the sun went down we drove the cattle home,  
Then carried to the house two pails of milk spread o'er with foam;  
And then the wood-box must be heaped with oak and soft pine wood;  
And in the clean-swept kitchen there, the supper-table stood.

The hasty-pudding, bowls of milk, the tempting pumpkin pie,  
The butter-ball as bright as gold, and plate of bread heaped high,  
And then the long, long winter eves—the dearest time of all—  
When tired-out aunt would often nod and let her needle fall,  
While uncle read the newspaper dated full a week ago,  
Or braided corn husks for the mats, I laughed to see him sew.

The wind came down the chimney-place and shook the old fire-board.  
The pop-corn puffed and snapped out white, the oak knots blazed and roared,  
The cat upon the braided mat is purring soft and low,  
No difference it makes to her how wild the winds may blow.  
But, ah! those happy childhood years have long since sped away,  
The house and barn are empty now, and going to decay.

The latch upon the old porch door has rusted in its place.  
And of the flower-garden plot there is not left a trace.  
With sad, sad thoughts, I turn away, I linger by the gate—  
But oh! how useless 'tis for me to long, and wish, and wait.  
This swelling heart and tearful eyes, and they are all in vain—  
The faces dear and good old time will ne'er come back again.

—L. M. Crosby.

### Rachel's Mother-in-Law.

"I wouldn't have believed it of you, Rachel," said Mrs. Edmonstone plaintively. "No, I wouldn't, not unless Betsy Tacker had told me; and Betsy, she never told a lie no more than George Washington did."

"Why, mother, what are you talking about?" questioned Mrs. Thomas Edmonstone, untwining the elder lady's bonnet-strings and relieving her of a splint basket, a black silk bag, a waterproof cloak, and an umbrella.

"And I've come to see if it's true," added the old lady.

"If what's true, mother?"

"That you said you wish there wasn't no such person as m-me!" faltered Mrs. Edmonstone.

"Mother, you know I never could have said such a thing!" cried out Rachel.

"Well, it wasn't exactly that, but Betsy Tacker heard you say you wished there was no such thing as a mother-in-law."

"Oh!" cried Rachel, with a hysterical little laugh, "I plead guilty. I did say that. But, oh, mother! it was under such strong provocation, and I never meant you. How could I, when you have always been so good to me?"

"I knew it couldn't be true," said Mrs.

Edmonstone, settling herself in the easiest rocking-chair and nodding her cap strings comfortably. "But how came you to make that extra-ordinary speech, Rachel, about mothers-in-law in general?"

"It was Tom," said the young wife. "He was so aggravating!"

"Thomas always was aggravating," said Mrs. Edmonstone, stirring the cup of tea that Rachel had brought her. "And what was it about now? The breakfast cakes?"

"Oh, you remember about the breakfast cakes, don't you?" said Rachel, with merry mischief sparkling in her eyes. "No, it wasn't the breakfast cakes this time; it was the shirts."

"The shirts?"

"Well, you know he said it was such a wasteful, extravagant proceeding to buy shirts ready-made," explained Rachel. "He said the linen was poor, and the work regular slop-shop style, and he declared you always used to make his shirts at home, every stitob, before he was married."

"So I did," acknowledged Mrs. Edmonstone with a groan. "But that was in the old times, before you could buy such a good article as they have now."

"Yes, but Tom doesn't make any allowance for difference in times and customs," sighed Rachel. "He wanted home-made shirts, and home-made shirts he would have!"

"And you made 'em?"

"Yes, I made them."

"You were a great goose," reflectively spoke Mrs. Edmonstone.

"And—and Tom swore dreadfully the first time he put one on."

"I don't in the least doubt it."

"And he said they set like meal-bags, and that they twisted his neck around as if he had just been hanged, and grasped him on the shoulders like a policeman! Oh, I can't tell you what he didn't say!"

"Bless me!" said Mrs. Edmonstone.

"He told me his mother's shirts set like a glove, and fitted him perfectly—and why couldn't I turn out a shirt like those? And it was then, mother dear," suddenly flinging her arms around the old lady's plump, comfortable neck, "that I lost my head and told him I wished there wasn't such a thing as a mother-in-law in the world. And Betsy Tacker sat in the sewing-room altering over my dolman in the spring style, and I suppose she must have heard me."

"Don't mind it, my dear," said Mrs. Edmonstone.

"No, I won't," protested Rachel. "But, oh, those shirts! I've been ripping them apart and sewing them together again, and rounding off a gusset here, and taking in a plait there, until I've got so that I dream of 'em at night; and the more I try them on the worse they fit, and the more unreasonable Tom becomes. 'My mother never made such work of it as this!' says he."

"Thomas forgets," observed Mrs. Edmonstone severely.

"And I'm sure, if things go on like this," added Rachel, pushing her short brown curls off her forehead, "it will end in a separation on account of incompatibility of temper."

"No it won't, my dear," said the mother-in-law. "Here, get me the pattern and some shirting muslin, and a pair of scissors."

"What are you going to do, mother?" eagerly questioned Rachel.

"I'm going to make Tom a shirt. But don't you tell him, Rachel. We'll see whether it is Tom or the pattern that has altered."

Once more the mischievous light came into Rachel's bright blue eyes.

"I wish all the world were mothers-in-law," shrieked gleefully. "Why didn't I think of this before?"

"One can't think of everything, child," said Mrs. Edmonstone consolingly.

Thomas Edmonstone welcomed his mother cordially when he came home from business.

"I'm so glad you've come!" said he. "We can have some of the nice old-fashioned dishes now. Rachel can't seem to get the hang of them, although she has always had your hook of receipts to guide her."

"Rachel's a good deal better cook than ever I pretended to be," said Mrs. Edmonstone. "They have patent egg-beaters and cream-whippers and raisin-seeders, and all that sort of thing now, that they didn't have in my day. I never tasted nicer bread than Rachel makes, and these pop-overs are delicious."

"You're just saying that to encourage Rachel," said Mr. Edmonstone, with an incredulous smile. "Things will run smooth now you've come. That's one comfort."

"Oh, I shouldn't think of interfering in Rachel's kitchen," said the old lady.

"Please do, mother," coaxed the wife, not without a certain quiver in her lip.

"Do let Tom have a reminiscence of the old days while you are here."

"Well, just as you children say," conceded the mother-in-law good-humoredly.

She remained a week at her son's house, during which period of time Tom was all exultant complacency.

"This," said he, "is something like living. I feel myself a boy again when I taste these apple fritters."

"They're not bad," said Rachel, who had made them with her own skillful hands, and she helped herself to a little of the sauce.

"And why don't you learn my mother's knack of making such pie-crust as this?" demanded Tom. "There's no dyspepsia here!"

"I'm glad you're pleased," said Rachel, with a guilty glance at her mother-in-law. "Oh, by the way, Tom, the last of the set of shirts is finished now. Will you put it on to-morrow?"

"I suppose so," ungraciously uttered Tom. "Will set like fury, I dare say, like all the rest of them!"

"You might at least give it a trial."

"Didn't I say I would?" still more ungraciously. "Those shirts will be the death of me yet," he added, turning to his mother with a groan, while Rachel sat steadily observing the pattern of the table-cloth.

The breakfast stood smoking on the table next morning when Mr. Edmonstone came into the room twisting himself as if he were practicing to be a human corkscrew. Mrs. Edmonstone glanced timidly up at him.

"Doesn't it fit, Tom?" she questioned.

"Fit! Just look at it, will you?" he retorted. "Fit! Hangs like a window-curtain around my neck—pinches my wrists like a pair of handcuffs! I feel as if I were in a strait jacket"—writhing impatiently to and fro. "Oh, I might have known it beforehand. You haven't an idea what the word fit means. I wish, mother, you could teach this wife of mine how to make a decent shirt!"

"Thomas," said Mrs. Edmonstone solemnly, transfixing him with the glistening spheres of her spectacle-glasses, "you are not very polite. I made that shirt."

"You, mother!"

"Yes, I myself. Just as I used to make shirts for you in the old times that you're always sighing after. I've been working at it ever since I've been in the house. Throw away the pattern, Rachel, and don't waste any more time trying to make your husband's shirts," she added.

"It's an economy of time and temper, as well as of money, to buy them ready-made; and as for the cooking you have been praising up so eloquently all the time I've been here, Tom, I haven't touched a pot or a pan. It's all your wife's work. So much for imagination! Oh, you needn't hang your head so sheepishly; you're neither better nor worse than most men," went on Mrs. Edmonstone.

"I never saw the man yet that didn't need to hear a little wholesome truth now and then. You've got the best and sweetest little wife in the world."

"Mother!" pleaded Rachel, trying to put her hand over the old lady's mouth, but Mrs. Edmonstone resolutely persisted.

"And it's my advice to you to try to treat her as she deserves."

"I—I don't know but I have been rather cranky of late," said Tom self-consciously, "now that I come to think of it."

"Cranky! I should think so," said the old lady. "I'm sure I don't know what the world's coming to. Here's little Georgie toddling around with his wooden oar. The first thing you know he'll be telling his wife about the wonderful successes his mother used to make in this, and that and the other thing. We've all got to come to it."

"And Georgy'll be right," said Tom, who, after all, had a magnanimous streak through him. "What a crab I've been! Hang the home-made shirts! I'll buy them out of the store next time! Kiss me, Rachel—and you, too, mother; and be sure you let me have a dish of scalloped oysters when I come home to dinner." The oysters Rachel cooked.

He ate his breakfast and departed; and when he was gone, young Mrs. Edmonstone looked with shining eyes at old Mrs. Edmonstone.

"Oh, what a nice thing to have a mother-in-law!" said she fervently.—*Fireside Companion.*

### Thoughts.

[Written for the RURAL PRESS by C. P. NETTLETON.]

The worst hunger is that of the heart, for love; the worst satiety is that of the heart, being obliged, through not finding any one to love, to expend all its love-wealth on itself.

The fear of intruding is often a great discourtesy; friends must not act like acquaintances.

Reason is confined to the earth; spirit, or intuition, is unconfined.

We should prepare for death? Not so; we should prepare for something more solemn—life.

Excess of hope is despair.

The hypocrite is never so near exposure as when his righteousness is called into question.

The worst form of conceit is that springing from humility.

The pain in ecstasy of feeling is caused by the inability of the body to keep pace with the unusual demands of the spirit.

The peace of life is a totally different thing from the peace of death.

Life forms the body—and then is subject to it!

If we were as afraid of being wrong as we are afraid of being serious, we would be so serious that we would not be so often wrong.

Eternity is not prolonged time, but a state.

Paralysis of the soul is the worst disease on earth, and the most common.

Love curves on itself and rewards the lover even more than the beloved.

Despair is the illegitimate child of Misfortune and Weakness.

Knowledge is often more lamentable than ignorance, because used wrongly.

MOST NEWSPAPERS persist in printing marriage notices despite the anti-lottery law.

### Notes on the Bible.

[Written for the RURAL PRESS by MAUDE S. FRASER.]

Some months ago, a short article from my pen on the subject of the old English of the Lord's prayer appeared in the columns of the RURAL PRESS, followed by a longer article by a fellow-worker.

Since then I have gathered considerable interesting information on the subject of the book of books, the Bible.

Viewed from none other than a literary standpoint, the topic is one of much interest.

It is over five hundred years ago since Wycliffe made the first translation of the scriptures into the language of the common people.

The word "Bible," given universally to the Old and the New Testament, is derived from the Greek *Ta Biblia*, the books. This name was first used by Chrysostom in the fourth century.

When the Jews, in about 535 B. C., returned from their captivity, Ezra collected and arranged all the sacred writings then known to him.

He divided these into three parts—The Law, The Prophets and The Hagiographa. Pentateuch, or five books of Moses, constitutes The Law. The writings of the prophets occur under the proper headings. Hagiographa means "sacred writings," and includes The Psalms, The Proverbs, Ecclesiastes and The Song of Solomon.

Between the completion of the Old Testament by Malachi, who was the last of the prophets, and the publication of the new, I find there elapsed nearly five hundred years.

A translation of the Old Testament into the Greek was made in the third century B. C. This is called the *Septuagint*, and is considered very valuable. An Egyptian monarch, Ptolemy, caused this translation to be made for the famous library at Alexandria. There are many conflicting theories as to the origin of this translation.

The most celebrated of the Latin translations was the *Vetus Italia*. The *Vulgate* was translated from the original Hebrew by Jerome, and has been for centuries the standard Bible of the Roman church. It was first printed at Mentz by Gutenberg. It was the first book printed with movable types, and although it came into existence somewhere between 1450 and 1455, is without a date.

During the reign of James I of England, what has since been known as "The Authorized English Version" made its appearance. It was the work of forty-seven learned divines appointed by the King.

The first translation of the entire Bible into English was made in 1380 by Wycliffe. Many other versions followed this before the advent of "The Authorized English Version" in 1611.

It is, without doubt, well known that the whole of the New Testament was not written at one time. Six of the apostles and two disciples who accompanied them worked upon it at different times.

The Gospels of Matthew, Mark, Luke and John were written and circulated among a chosen few shortly after the death of Jesus. All of the rest was written within the next century, and principally during the first half of that period.

In the next century several apocryphal writings were published, but were rejected by even the early Christians.

The first printed New Testament was that of Tyndale, 1525; the first printed Bible was that of Cloverdale, 1535. The former was printed at Cologne, the latter at Antwerp.

During the process of translation, the singular rendering of certain words of the text has caused odd names to be given the Bibles containing these mistakes. These are so curious and of such unmistakable interest that I will quote somewhat at length from my authority:

"In Matthew's Bible, 1551, the word *terror* in Psalm xvi: 5 is rendered *bugges*, making the passage read: 'Thou shalt not be afraid for the bugs by night.' This is called *The Bug Bible*. In the Geneva Bible, 1560, Adam and Eve are said to have made themselves *breaches* of fig leaves instead of *aprons*. This is designated *The Breaches Bible*. In the Bishop Bible, 1568, 'is there no *trayacle* in Gilead,' is found instead of *balm*; hence the name, *The Treacle Bible*. In the Douay version, 1610, this word is rendered *rosin*, from which we have *The Rosin Bible*. There is mention of one more Bible in which Paul is said to be called 'a *knave* of Jesus Christ,' Rom. i: 1, meaning thereby a servant; but this, which is designated *The Knave Bible*, appears to have had no existence."

It may be interesting to mention a few typographical errors that have crept into some of the versions of the Scriptures.

Cotton Mather tells of one in which David is made to say, Psalms CXIX, 161: "Printers have persecuted me without a cause." In a London edition of the Authorized Version, 1653, 1 Cor. VI, 9, reads: "Know ye not that the unrighteous shall inherit the kingdom of God." In an Oxford Bible is found, Heb. IX, 14, "Purge your conscience of good works," instead of dead works. In still another is the following, "Christ condemneth the poor widow," instead of commendeth.

I quote again: "In 1717, J. Basket published in Oxford an edition of the Authorized Version in which 'The parable of the vinegar'



at the head of Luke XX appears, instead of 'The parable of the vineyard.' It is not surprising that this was called "A Basketful of Errors."

The most startling blunder, however, was contained in the so-called *Wicked Bible*, where the word *not* is omitted from the seventh commandment. King Charles I fined the printers three hundred pounds and caused the whole edition to be destroyed.

Much care has been taken to rectify all mistakes, whether grave or trivial, and the *Revised Edition* now in use is believed to be the very best possible rendition of the original text.

It was not undertaken to settle any doctrinal points, but to more carefully render certain words and phrases that, it was thought, had been somewhat slighted at the hands of those first employed on the Authorized Version.

Whether this attempt will be the last made to attain a perfect translation rests in the future. It is certain that no time or money was spared to make the edition a success from a literary point of view.

### Chaff.

MALE BOARDER (giving an account of a banquet): We had a rare entree. You cannot guess what. It was a piece of ground hog.

FEMALE BOARDER: Horrible! Did you really eat it? What did it taste like?

MALE BOARDER: It tasted very much like sausage.

QUOTH TOM: "Though fair her features be, It is her figure pleases me."

"What may her figure be?" I cried.

"One hundred thousand!" he replied.

"I'm beginning to think my wife wants to get rid of me. Yesterday she made me get my life insured."

"That's only a sign of her womanly prudence."

"But at the same time she bought a new cook-book."

THE ROSE and calla side by side

Were in a bouquet pent;

"Ah! the rose exclaimed, 'you're fair to see.'"

And the calla said, "Of course, tee hee!"

But you cannot borrow aught from me,

For I haven't got a scent."

"THE climbing hills give strength unto the calf,"

Said Fitzaugustus Montmorenci Pugh,

And really did not like it—not by half—

When Alice asked "Why don't you climb a few?"

HUSBAND (gloomily): I lost fifty dollars

last night playing poker.

Wife: And yet you cannot afford to buy me

a bonnet.

Husband: Well, I should say not.

AN Exposition of Early American Statesman-

ship.—He: Why should you refuse him on

account of his not being your equal? Your

grandfather signed the Declaration of Inde-

pendence. Don't you believe that all men are

born equal?

She: Oh yes, of course I do; but some men

deteriorate after birth, you know.

ANGELINE: I will not marry him! He is

old and ngly. Mamma: Angeline, did I not

marry your father?—*Harper's Weekly*.

THE LITTLE DIPLOMATIST.—"Carl, it is not

very good of you to say bad things of your

friend behind his back." "Yea, but father,

when I say them to his face he licks me."

### Can Plants See?

The candid observer must admit that many plants act as if they had the faculty of seeing. At any rate, they manage to find food and support by some special sense, which the unscientific mind cannot name any better than to call it sight. Mrs. King describes a very curious instance of this habit of looking out for support on the part of a creeping plant in India.

"My husband has broached a theory that I cannot remember to have met with before, namely, that creeping plants can see, or at any rate have some faculty equaling sight. He was sitting in the veranda with one foot up against a large pillar, near to which grows a kind of convolvulus. Its tendrils were leaning over into the veranda, and to Robert's surprise he presently noticed that they were visibly turning toward his leg. He remained in the same position, and in less than an hour the tendrils had laid themselves over his leg.

"This was in the early morning, and when at breakfast he told me of this discovery, we determined to make further experiments. When we went out into the veranda the tendrils had turned their heads back to the railing in disgust. We got a pole and leaned it up against the pillar, quite 12 inches from the nearest sprays of convolvulus.

"In ten minutes they had begun to curve themselves in that direction, and acted exactly as you might fancy a very slow snake would do if he wished to reach anything. The upper tendrils bent down and the side ones curved themselves until they touched the pole, and in a few hours were twisted quite round it.

"It was on the side away from the light, and excepting the faculty of sight, we can think of no other means by which the tendrils could be aware that the pole had been placed there. They had to turn away from the light to reach it, and they set themselves in motion visibly within a few minutes of the pole's being there."

## YOUNG FOLKS' COLUMN.

### Bessie's Exhibition.

[Written for the RURAL PRESS by ISABELLA G. OAKLEY.]

The children had spent all the morning decorating the tent and reciting their pieces.

"Now, children," said Bessie, "you are all dismissed. Tell all the people they are invited at three o'clock precisely—Striped Tent, B Street, Cypress Beach, Pacific Grove."

But only the two little Brown boys heard her. The rest had heard the luncheon gong and were already half-way to the hotel. But they knew the invitation by heart—better, in fact, than some other things about the performance, which they were expected to know. Bessie stayed to put some finishing touches to the platform, which consisted of two rather unsteady boxes, and to settle upon the important matter of seats. She was alarmed to find so few.

"I wonder what I'm going to do. I didn't tell them to bring chairs, and now I can't go all around to the tents to tell them."

She stood looking rather anxiously toward the sea, and just then she fortunately saw a board half covered with sand. It was dirty and heavy, but she was determined that this should make a settee, so she tugged away, dragging it a little and dropping it a good deal. When Charley Stevenson, who was passing, saw her, he kindly offered to carry it for her, otherwise I think it would have never reached the Striped Tent.

When it was finally settled with its ends upon two boxes, it made a beautiful seat and Bessie regarded it with delight.

"That'll seat six. I guess some of 'em will bring camp-stools."

"Invite me to your show," said Charley, "and I'll bring two."

"Oh yes, certainly," said Bessie, politely; "but it isn't a show, it's an exhibition, and I guess you won't like it very much. But you must promise not to laugh."

She did not at all believe in inviting such a big boy, but then he had been so kind she didn't see how she could refuse him. Still she trembled inwardly for fear the children would be afraid of him.

Thus encouraged, Charley stayed and helped fix up. The "decorations" had tumbled over in most places and looked discouraged and withered.

"Wait till I go and get a hammer and things," said he; "I'll make 'em stay up, and I'll bring some fresh cypress boughs."

So they worked away until things looked quite "ship-shape."

Bessie was very late at luncheon and looked pale and tired. Her mother wanted her to lie down after lunch, but this was declared impossible.

"The children will come back and spoil the tent. I must go early and see to them."

"She takes more care of those babies than all the nurses at Cypress Beach," said Aunt Susie to her mother.

After lunch, Bessie was in a hurry to be dressed, and while her mother was doing her hair she described what was going on.

"You're invited at 3 o'clock, mamma dear, but," she added in a lower tone, "I don't want Aunt Susie, she's so sarcastic you know."

"Well," said her mother, "I don't see how you can invite some of the family and leave others out."

"I know it," said the child, "that's just the trouble, it worries me dreadfully; but I don't see how I can have her."

Her mother did not answer; she was thinking a long way off while she tied the bows upon Bessie's braids. But when she turned the little girl around and saw two long tears sliding down the round pale cheeks, "Why, daughter," she said, "what are you crying about?"

"I'm so troubled about Aunt Susie, and Charley Stevens, and everything!"

"Well, I think I shall undress you and put you right to bed! This will never, never do—you're all worn out with play!"

"Oh, please, mamma, please! The children have all learnt their pieces, and everybody's invited, and the tent's decorated, and everything! I'll stay home all day to-morrow!"

Her mother looked her over. Her eyes looked heavy, but the disappointment she saw gathering there would bring headache sooner than play, so she said: "Well, you promise to stay with me all day to-morrow, do you? I guess Aunt Susie couldn't come very well, anyway; she's going to ride."

"Well mamma, be sure you come," and after several embraces she departed, and was hurrying back to the striped tent. She didn't get there a minute too soon. The little Brown boys and Susie Culver were there, playing seesaw with the settee.

"Oh dear, don't; you mustn't spoil the seats, so. Now Dickey and Guernsey, you each go and get a camp-stool, won't you?"

"Yes," said Dickey. "My gran'ma's coming and she don't want to sit on a board settee!"

"Oh, Susie, how sweet you look," said Bessie, turning Susie around to bring all her flowers and ribbons into full view. "Come now, let me hear you speak your piece once more!"

Susie lisped off her verses at the rate of about fifty words a minute.

"That's nice," said the little teacher, encouraging her with a kiss, "only a little too fast."

Then she drilled her in making her curtesy and gave her a lesson in getting up and down the platform. This was a part they all liked. By this time they had all come, and it was about time for the visitors.

"Now don't run away; come now, all sit down; you'll spoil your dresses; come, I'll read you a story while we're waiting."

The pockets of Bessie's tent were always stuffed with story books and in a few minutes the whole dramatic company were crouching on the tent floor listening to the story of the Gryphon.

"You ought to be rehearsing, I know," said Bessie anxiously, "only you all act so, I guess I'd better read you another story."

But now the visitors began to come. Susie's mother, and the grandfather and grandmother of the little Browns, and Bessie's mother; that was all except Charley, who would not have stayed away for anything.

Bessie received them politely. They all admired the decorations, especially the platform, which was very artistically covered with a gray blanket bordered with sunflowers. The performers occupied the settee, where they sat swinging their little legs and looking hard at Charley; it was generally wished that he would go away, for all were sure that he would laugh.

Then Bessie rose and said, with great dignity: "It's time to begin; the children will sing 'Suppose a little dew-drop.'" But the choir did not so much as stand up, while Bessie, without the least hesitation led off in a clear, sweet voice, and sang the solo all through. The piece was solo and chorine, but no one joined in the chorine. However, by the time she got to the third verse, Dicky Brown, forgetting himself, burst strongly in with his part.

"So many a deed of charity  
A little child may do—o,  
Although it has so little strength,  
And little wisdom too."

This produced great applause, the children clapping loudly, with no seeming shame for their recent conduct.

"The first piece," continued Bessie, "is by Susie Culver—'Do you know what the birds say.'" Then Bessie took her seat, but Susie turned red and looked at Charley Stevens, and then ran and put her head in her grandmother's lap.

The next minute Bessie was on the platform making Susie's curtesy and reciting Susie's piece:

"Do you know what the birds say, the sparrow  
and the dove?

The linnet and lark say, I love and I love;  
In winter they're silent, the wind is so strong.  
What it says I don't know, but it sings a loud song;"

And so on; it wasn't very long, and when she stepped down there was loud applause, chiefly by Charley, who said he would like to "lam" Susie, or to "eat her up."

Then Bessie announced "The Children's Hour," by Guernsey Brown. Again, I blush to record it, there was a dead silence, during which Guernsey ran straight out of the tent, and the other children tittered; I'm not sure but that some of the grown people laughed too. Again, however, Bessie took up the part and never missed a word. When she got to the favorite verse:

"Do you think, O blue-eyed banditti,  
Because you have sealed the wall,  
Such an old mustache as I am  
Is not a match for you all!"

Guernsey was on hand to laugh as loud as any one at this favorite sally. Then the children were asked to sing "The morning bright" and they really did and so did the grown-up people; it really began to seem quite like an exhibition, or—a Sunday School.

"There are two more pieces," said Bessie. "Dickey Brown was going to say 'Twas the night before Christmas,' but I guess he can be excused (Dickey was creeping under his grandfather's chair), and we will hear Pinkey's piece, 'Which way does the wind blow?' by Miss Pinkey Scott."

But Pinkey did not stir; yes, Pinkey, who thought Susie had acted so meanly when it was her turn. She wanted to be good, but she looked at Charley and then at all the rest, and she couldn't, for all the world, get up on the platform. So she pulled her hat over her eyes and began to cry; but she stopped immediately when she heard her darling Bessie calmly reciting:

"Which way does the wind blow and where does he go?

He rides o'er the waters and over the snow,  
O'er wood and o'er valley and over the height,  
Where goats cannot traverse he taketh his flight.  
He rages and tosses, when bare is the tree,  
As when you looked upward, you plainly may see;  
But whither he cometh or whither he goes,  
There's no one can tell you—there's no one that knows."

"This is all," said the brave little conductor after she had made her curtesy.

The visitors all gave a long round of applause, and the other performers crept off in deep shame. In a few minutes they were all shoveling sand on the beach for a Grant monument.

"I wouldn't say my piece," cried Guernsey, "just 'cause Bessie invited Charley Stevens."

"Oh, yes," chimed in Susie, "that's just what I was afraid of, Charley Stevens would laugh at me. He's always calling us shrimps and kids and making fun of us."

Bessie lay with a wet handkerchief over her forehead in her mother's tent, while sarcastic Aunt Susan read to her.

"I suppose you always invite the gentlemen after you ask them to help you, don't you, anny?"

"Oh, certainly, but we have to be very careful how we ask them to help us."

"Well, when you can't lift the heavy things, and so on."

"Oh yes, certainly," said Aunt Susan.

## DOMESTIC ECONOMY.

APPLE CHARLOTTE.—Cut two dozen large cooking apples in thin, small slices, after peeling. Have ready, also, one pound of sugar, a quarter of a pound of sliced preserved citron, half a pound of hot melted butter, and a loaf of stale bread, also sliced very thin. Take a baking dish that will hold one gallon, line it with slices of bread dipped in melted butter, placing the buttered sides against the dish; now make a thick layer of apples, strew plentifully with sugar, and dot with bits of citron; now another layer of buttered bread, then another thick one of apples, sugar, citron, etc., until the dish is packed as full as it will hold. Steam for awhile to extract the juice from the fruit, then place in an oven to bake, applying the heat, however, gradually, so as to run no risk of breaking the dish. Allow the Charlotte to cook slowly for several hours, or until, by inserting a spoon, you find that the apples have become perfectly tender and transparent. When drawn from the oven turn out into a handsome dessert dish and sift over it a frosting of granulated white sugar. Serve with a sauce of simple cream.

FATHER ADAM.—This plain family dish is of English origin; it is one that is generally well relished by children. Probably the above name was given it because it is a very old dish. It is one of the many ways of using meat the second day. Take as much cold roast beef as will half fill a baking-dish suited to the size of your family. Add enough gravy, saved from the day before, or, lacking that, enough butter and water, in which to stew the beef until quite tender. Then having ready enough Irish potatoes, boiled, mashed, and seasoned with butter, pepper and salt, and made smooth with a little cream or rich milk, fill the dish with them to the top, and place in a well-heated oven to bake until nicely browned. It has a very inviting appearance. Tomato catsup or any nice store sauce may be served with it, but should be added at table as individual taste may suggest.

DINNER ROLLS.—Put one-half cake compressed yeast into a pint of warm milk and let it dissolve. Rub one ounce of butter into two pounds of flour, adding a pinch of salt; mix with the milk, cover closely, and stand in a warm place to rise, which it will do in about an hour; make into rolls and bake in a quick oven. Brown: Take one quart of brown meal, stir into it a tablespoonful of salt, dissolve one-half cake of yeast in warm water, make a hole in the flour and stir in; cover closely and stand in a warm place for the night. In the morning, break one ounce of butter into warm milk and dissolve; beat two eggs, stir them into the flour with one-half ounce of sugar; mix with the milk, let it stand 20 minutes, make into rolls and then bake.

SUPERIOR BREAD PUDDING.—Crumble up one pint of loaf bread; pour over the crumbs one quart of sweet milk. Stir in the beaten yolks of five eggs, one cupful of sugar, and one tablespoonful of melted butter. Season delicately with lemon. Bake the pudding until it is of the consistency of baked custard. When moderately cool, spread over a layer of jelly or preserves. Beat up the whites of the five eggs until very light, and add five tablespoonfuls of white sugar. Flavor this meringue with vanilla, put it on the pudding and brown slightly. When sent to table it is thought by some to be a great improvement to pour a little cream in each plate as a sauce. Yet this is just as convenience may dictate. It is good enough without.

BUTTERMILK PUDDING.—Two eggs, two cupfuls of sugar, half a cupful of butter, one teaspoonful of soda, sifted in two cupfuls of flour and three cupfuls of buttermilk. Stir this last into the flour, etc., and mix lightly. Grease a pudding-dish and bake an hour. To be eaten with sauce made of half a pound of butter, yolks of two eggs and nine tablespoonfuls of sugar. Beat the eggs well and cream butter with them. Put it on the fire to stew, having added to it two wine glassfuls of wine and part of a nutmeg grated. If preferred, any flavoring extract may be added and the wine omitted.

GINGERBREAD.—In making gingerbread it is essential to have good molasses; syrup will not give good satisfaction, and coarse black molasses is also objectionable. New Orleans is probably the best. Take one cupful of sugar, one cupful of sour cream, one cupful of molasses, four cupfuls of sifted flour, one tablespoonful of ginger, one teaspoonful of soda, the grated rind of one lemon, three eggs, well beaten. Stir the butter and sugar together, then add the eggs, milk and flour.

JELLY PUDDINGS.—These are to be baked in puff paste. Eight eggs, one cupful and a half of butter, one cupful and a half of pulverized white sugar, one cupful and a half of currant jelly. Season with essence of lemon. Bake the crust nearly done, and then pour in the batter. Bake until the puddings are slightly brown. This quantity will make three deep pudding plates full.





A. T. DEWEY.

W. B. EWER.

Published by DEWEY &amp; CO.

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## Our Subscription Rates.

OUR ANNUAL SUBSCRIPTION RATE IS THREE DOLLARS A YEAR. While this notice appears, all subscribers paying \$3 in advance will receive 15 months (one year and 15 weeks) credit. For \$2.00 in advance, 10 months. For \$1.00 in advance, five months. Trial subscriptions for three months, paid in advance, each 60 cents. All agents and clerks are required to adhere to these terms. No new names entered on the list without payment in advance. Our premium offerings are subject to these terms.

## Advertising Rates.

	1 Week.	1 Month.	3 Months.	1 Year.
Per Line (agate).....	\$ .25	\$ .50	\$ 1.20	\$ 4.00
Half inch (1 square)....	1.00	2.50	6.50	22.00
One inch.....	1.50	5.00	13.00	42.00

Large advertisements at favorable rates. Special or reading notices, legal advertisements, notices appearing in extraordinary type, or in particular parts of the paper, at special rates. Four insertions are rated in a month.

## SCIENTIFIC PRESS PATENT AGENCY

DEWEY &amp; CO., PATENT SOLICITORS.

A. T. DEWEY.

W. B. EWER.

G. H. STRONG.

Our latest forms go to press Wednesday evening.

Registered at S. F. Post Office as second-class mail matter.

## SAN FRANCISCO:

Saturday, January 31, 1891.

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Plentiful applications of cold water, forcibly applied from a hydrant or from a force-pump, is as good a treatment as we know of. Who can give a better?  
THE LUMBER CUT of the northern coast for 1890 is set down as follows:

## A State Weather Service.

We believe no subject now before the Legislature will commend itself more forcibly to the agricultural producers of this State than the establishment of a State Weather Service upon the plan embodied in a bill introduced in the Assembly by Mr. Robertson of Siskiyou. We have really made great progress during recent years in an understanding of our peculiar climates, thanks to the Signal Service officers and other earnest students of local meteorology, and it is now feasible to greatly extend such observations and render their results more available at an exceedingly low cost. We believe there is no proposition now before the Legislature by which so much can be realized at so small cost.

The proposition is to organize and equip a State Weather Service, and, as might be expected, Serg't Barwick, of Sacramento, is leading in the effort and ready to assume its extra responsibilities and duties without cost to the State. Secretary Smith, of the State Board of Agriculture, is ready to assume the direction of the service, in addition to duties already covered by his salary. The result is, that the service can be had for the pay of a clerk and the cost of necessary stationery—each of these items being placed at \$100 per month—and the cost of instruments, which are furnished to voluntary observers, taking from them personal bonds therefor. Thus the service can be realized for very small expenditure of public money, and is in fact what is called, a "Voluntary Weather Service." Such a service is rendered practicable, because the United States Signal Service co-operates with the State organizations and furnishes blanks, postage, instruction-books, etc., free of cost to the State.

California is late in organizing such a service, and yet we know that Lieut. Finley is right when he says: "No other State in the Union is more in need of a formal organization for meteorological work than is California. She has immense interests to be benefited by the work of such a service." New York began in April, 1889, and has published a report of 122 pages deeply interesting and important, and the whole cost of the service which is thus epitomized was but \$1737.34. Other States that have established local Weather Bureaus are Alabama, Arkansas, Colorado, Dakota, Illinois, Indiana, Iowa, Kansas, Kentucky, Louisiana, Michigan, Minnesota, Mississippi, Missouri, Nebraska, New Jersey, Nevada, North Carolina, Ohio, Oregon, Pennsylvania, South Carolina, Tennessee and Texas. By the bill of Mr. Robertson it is now proposed to extend the roster by adding California. The bill provides that the service shall be supervised by the Director of the State Agricultural Society. The central station to be at Sacramento, with a chief, an assistant and a sub-director, the first to be the secretary of the State Agricultural Society, the second an officer of the National service who may be detailed for that purpose, and the third to be the Superintendent of Public Instruction.

There are to be three volunteer stations in each county, and all teachers in public schools, if required by the county superintendents, who are to be county sub-directors, are to make and note daily observations and forward them. A weekly weather and crop bulletin is to be issued from the State printing office, from April to October, and each month a weather and crop review published, and annually the chief director is to publish, with the report of the State Agricultural Society, a review of the year's work.

This is in outline the proposition which is now before our Legislature, and one the enactment of which we believe our agriculturists should insist upon. Last summer, Serg't Barwick began a voluntary service, securing his local observers in part through invitation published in the RURAL and other journals. He succeeded so well that he received especial commendation from Gen. Greely, Chief of the U. S. Signal Service, who has instructed Serg't Barwick to make requisition for as much extra supplies, such as blank forms, franked envelopes, etc., as may be needed for an increase in the weekly crop service for the coming season. Serg't Barwick is now waiting before making such requisition for supplies until he knows the outcome of the bill, now before our Legislature, for if this bill becomes a law, he

will require much greater supplies than he could possibly use otherwise.

We have, then, the opportunity to enjoy more than ever before the benefits of the U. S. Service; we have a chance to produce a crop of trained weather observers and meteorological students; to bring the subject right into the schools, where it belongs; to inform ourselves upon crop prospects and to be warned of threatening weather conditions; to make better known throughout the world our glorious climate—all for a sum which is merely nominal in comparison with the benefits to be derived.

We can hardly see how a legislator can have a doubt upon the wisdom of the proposed legislation, and we expect to see it speedily realized.

## Small General-Purpose Farms.

We hear so much said, and generally truly said, of what is done on small areas of fruit in this State that it is very desirable to have it known that small farming is profitable in this State on lines in which fruit trees and vines do not enter. We say desirable, because not all localities are well adapted to fruit, nor do all tastes run to pruning or bag-killing. There are people who enjoy the perfumed breath of the cow and the melody of the poultry-yard. Their lives, perchance, have been spent in learning how to succeed with these valuable factors in agricultural production. They do not care always to come to California to take up lines of work of which they know nothing, although it must be acknowledged that some of our best fruit-growers were but recently cow-farmers and hen-farmers, and once little thought that they would take up other lines. Still, let it be known that it is possible to attain comfort and perhaps a competency in other undertakings than fruit-growing if one knows how to go about it properly.

We find in *Hoard's Dairyman*, published in Wisconsin, a little note which A. N. Hunt writes from Humboldt county, California, from which we quote as follows:

I am a small dairyman in Arcata valley. Have but 40 acres. Keep 23 cows. Buy pigs to eat the milk at \$1.50 when old enough to wean. Keep until six or eight months old and sell at 7 cents. Killed 20 in 1890 averaging 160 pounds. Sold 21 tons of hay at \$6.50 in the field; \$350 worth of beef; \$75 worth of eggs; \$20 worth of chickens; \$64 for pasturing horses, and many other small bills too numerous to mention. I am ashamed to put my butter account in beside some that I have heard of; but, to cut the thing short, I will say that my total production for the year of 1890 was \$2515. If any of my neighbors can beat that, I would be pleased to have them come to the front. I am a beginner—have only been here four years. I think that I can beat the above statement in a few years.

We would like to hear more from small farmers who are in other lines than fruit. We would like to compare their experiences and methods, that all of them might be advantaged thereby and that the proper opportunity in California for all kinds of small farming may be more widely known.

## Honors to an Agricultural Editor.

The election of an agricultural editor to a seat among the nabobs and millionaires in the U. S. Senate is startling and significant. The agricultural editor has occasionally risen above the proud eminence of the speaker's stand at the district fairs, which seems commonly to be the acme of the humble individual's aspirations. Such a person has even been Governor of a State, but never before to our knowledge has been like been called to the upper story of the great bonse at Washington. And yet we would not be greatly surprised if Agricultural Editor Pfeffer of Kansas should have others of his class beside him in the U. S. Senate before the close of the century. Agriculturists as a class are true to their friends and can recognize honest devotion to a purpose quite clearly. It is also a fact that agricultural editors, present company excepted, are as a rule most devoted, earnest and intelligent workers for the advancement of agriculture and the true interests of the farming classes. These classes have never been fairly considered in the conduct of public affairs, and it is the most natural thing in the world as they are gradually attaining their public rights they should send to Washington to plead for them in the nation's ear the same men who have been pleading and insisting and declaring for them through the type ever since agriculture began its upward course

among the world's industries. It is a grateful recognition of such service that we perceive in the action of the Kansas Legislature in electing Mr. Pfeffer, editor of the *Kansas Farmer*, to the U. S. Senate, and we sincerely trust that he may have strength and wisdom to honorably discharge the peculiar obligations now laid upon him.

## QUERIES AND REPLIES.

## Free Coinage.

EDITORS PRESS:—What does the phrase "free coinage" mean? What is the U. S. law bearing on the subject?—FRANK P. COOK, Stockton.

Free Coinage is what its name implies. You deposit the bullion and receive the equivalent for it in coin without charge for coinage. This would bring the value of silver bullion up to a gold basis; viz., \$1.29½ per ounce of 1000 fine. Under the present law, the Government buys 4,500,000 ounces of silver a month at its market value, which keeps the metal a commodity with a fluctuating value, but under free coinage no such condition can obtain.

## Routier's Peach Apricot.

EDITORS PRESS:—I am not in the habit of writing articles for publication, but I saw in the RURAL two unanswered questions by P. of Stillwater, and as it is in the line of my business, it may be proper for me to answer, as I have made fruit culture a special study for the last seven years. I have been traveling for W. R. Strong Company in the fruit interest for the last seven years and know that the Peach apricot does well both in the foothills and valleys north of Sacramento to Shasta. It is a good and regular bearer, and the demand this year is greater for that variety of apricots than ever before. Hutchens Bros. of Butte county are planting several thousands of the Peach apricot this season.

## To Prevent Wash of Foothill Orchards.

Sow 100 pounds or more of barley to the acre (rye is better) early in the fall and harrow it in; then smooth surface with board or roller. Early in spring, after the heavy rains, plow it under, and you have a cheap fertilizer which will add to tree growth.—ISAAC BIRD, Grass Valley.

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	Feet.
Puget Sound Mills (14).....	779,830,042
Gray's Harbor (7 mills).....	117,500,000
Willapa Harbor (2 mills).....	38,000,000
Columbia River (7 mills).....	87,000,000
Between Kalama and Tacoma (11 mills).....	93,000,000
All others (16 mills).....	108,000,000
Grand total.....	1,222,880,042

## Business Announcements.

(NEW THIS ISSUE.)

Harrows—Baker & Hamilton.  
Guano—A. C. Crawford & Co.  
Trees and Plants—J. T. Lovett & Co., Little Silver, N. J.  
Live-Stock—H. P. Mohr, Mount Eden.  
Incubators—The Hatch Co., San Jose.  
Grape Cuttings—F. M. Murch, Folsom.  
Trees—Ellwanger & Barry, Rochester, N. Y.  
Orange Trees—Domato Bros. Co., Oakland.  
Fume Candles—Ed. Lamberg, Nordhoff.  
The Home Mutual Insurance Co.  
Washing Machine—B. F. Leeds, Santa Clara.  
Poultry—H. Anderson, Rio Vista.

See Advertising Columns.

## The Week.

The open winter continues, and under clear skies and a balmy air the Californian and his tourist visitors are working or idling according to their needs or inclinations. Meantime come reports of the most severe storms and Arctic temperatures over the Atlantic side of this country and the broad continent of Europe. Even in the semi-tropical region of Southern Europe the rivers are running ice-floes, and the orange and olive have suffered severely, while numerous invalids who have flown to the accustomed mildness of the Mediterranean shores, have encountered winter such as recent records speak not of. But one question worries Californians: When will it rain and how much? This question need not be answered immediately, nor too long postponed.

THE Southern Pacific Co., after test trips to see whether wood or coal was cheaper for running their locomotives over the mountain division, find that there is a slight advantage in favor of coal.



## At the Northern Citrus Fair.

Written for the RURAL PRESS by N. E. BOYD.]

(Continued from page 69.)

The northwest corner of the pavilion was well occupied by the

## Chico Board of Trade.

Ninety varieties of grain, duly tagged, made a striking part of this exhibit. Some 30 of the sheaves were fixed to the north wall, with heads divergent, in the shape of an arch whose keystone neared the eaves, while others were massed at one side in a pillar decked with hearing olive-branches and having at its base big beets and squash.

On tables in front of the grain display were English and black walnuts, pecan and hickory nuts, chestnuts and almonds; a collection of elegant dried fruit—W. V. Groves'—including both white and yellow nectarines, apricots, plums, freestone and cling peaches, blue figs, both bleached and unbleached, Brown Turkey figs, apples, pears and raisins; Casaba melons and olive oil from Gen. Bidwell; Japanese persimmons and comb honey.

Cases of cocoons and reeled silk were shown by Mrs. E. Findley; and five or six kinds of winter pear, by John Guill, had kept excellently.

Against the west end of the building, rising to the roof of the wing, and at right angles to the display of grain in sheaf, was a two-storied representation of the front of the Agricultural Department at Washington, with grounds in miniature. In lieu of windows, its purple walls were set with a dozen clear mirrors, framed in wired oranges, and the effect was brilliant.

About six dozen big, fair seedling oranges placed on marble-topped stands completed this Chico exhibit, which was in charge of B. F. Allen; the balustrade in front of it was quaintly ornamented with little gourds and squashes.

Out on the floor embayed by Chico, Thermalito and Oroville, a plot 16 feet square was laid down to a "Winter Garden," with beds, borders and gravel paths, by Francis Gibson, whose object was to show that "Sutter County has flowers and vegetables in midwinter." (He attained that object, and a special award of \$20 into the bargain.) At one corner a tub of earth held a Flat Dutch cabbidge, the head proper being a foot across, which grew on Mr. Gibson's land a mile below Vernon. It was claimed to be a fair specimen of the crop then on the ground, from which potatoes were harvested July 15th, and peas in September.

## The Sutter Fruit-Train.

The Sutter County Fruit Co.'s train, stretching for nigh 50 feet along the Southern wall, consisted of locomotive, tender, and three cars. The locomotive—framed by a master builder in the proportions of a real engine, on a plan suggested by R. C. Kells—was elaborately plated with dried fruits, the boiler appearing in platted plums, the dome and sandbox of peaches and white figs, the smoke-stack of black figs, the pilot of raisins, etc. At night it carries a *bona fide* electric headlight. The cab and tender are finished in similar fashion, and the latter is heaped with French prunes instead of coal. The three cars typify the canning, the drying and the citrus seasons, the first being freighted with cans, the second with dried fruits in great variety and the third with oranges. The train seemed to be issuing from the eastward end of "Truckee Tunnel," the pine-clad mountain-side being piled with snow, which on closer view proved to be cotton grown in Sutter county.

Between the tunnel and Yuba's windmill the Sutter Cannery had reared a pillared temple-porch, the building material being cans labeled with gay chromes of the cherries, peaches, plums, etc., which they presumably contain, with a few glass jars of extra fruit by way of trimming. Near by stood Clara Pratt's nice exhibit of fruits in glass—about 40 jars—each, by aid of an ingenious wired frame, was disposed in the general form of a tall fruit-dish.

Mrs. Robert Keck of Yuba City made a highly creditable display of almonds, walnuts, raisins, figs and other dried fruit, apples and cotton.

Mrs. A. B. Van Arsdale had in a showcase some handsome Washington Navels plucked from three-year-old trees of Florida stock and several plates of dried White Adriatic figs, from trees set out back of the levee near Yuba City two years ago, when they were one year old from the cutting. These figs, merely sundried, so approved themselves to the eye, touch and palate that they were awarded the premium of \$20.

## Potted Plants and Flowers.

Mrs. R. C. Kells, of Yuba City, took the highest honors for potted plants and flowers. (Her exhibit was massed upon a table in the shape of a quadrant with an eight-foot radius.) Grouped around a central tuft of variously-dyed pampas plumes were begonias of half a dozen sorts, camellias white and red, umbrella plant (*cyperus*), kamquod, geraniums in variety, carnations, heliotrope, China primroses (four kinds), maiden hair and asparagus fern, sedum, stevia, tradescantias (two var.), oxtail (three var.), cyclamen, achyranthes, lobelia, diosma, abutilon, mignonette, fuchsias, alter-

nanthera and salvia splendens—all in pots—and cut cactuses.

## Other Yuba City Exhibits.

J. K. P. Elwell showed a lofty cone of oranges, with lower pyramids about the foot. Mrs. W. H. Lee had a handsome shaft of oranges, reared "In honor of N. S. G. W.," twined with smilax, capped with a vase of fruit and having violet horseshoes on the angles. The monument rested upon a turftopped base, adorned with roses and chrysanthemums, and having at its six corners little posts that upheld fence-chains of gilded walnuts.

S. C. Deane laid his seedlings in a bed of spruce-tips on a table seven or eight feet square, rising gently to the center, above which Mrs. Desner set up an easel of oranges wreathed in smilax and crowned with flowers and pampas-plumes.

A heap of very fine, smooth Bonnie Brae lemons was exhibited by James T. Bogue, the wide-awake nurseryman, who carries stock of that famed variety.

S. H. Ranb, of Meridian, showed six or eight boxes of extra nice-looking raisins; and P. V. Veeder, of Grimes, about 70 large Japanese persimmons, in just the right condition for immediate use.

The exhibits hitherto described lay to the left as one entered—that is, in the western half of the pavilion.

## Smartsville's Castle.

Glancing to the right, conspicuous near the stage, was Smartsville's great Moorish castle, mentioned last week as large enough to live in. Its outer walls and ogee roof showed thousands of seedling oranges, but monotony of yellow was relieved by occasional loopholes and frequent bands of glossy green leaves, with clusters of crimson berries at short intervals. High up on sides and gables appeared the names of D. C. McGanney, James O'Brien, Jr., F. D. Congdon and Excelsior W. & M. Co., in letters of citrus fruit on a green ground. There was a doorway in the middle of each of the four sides, and the interior—a tent of yellow cambric—was furnished with chairs and rugs, and afforded a grateful resting-place to the visitor who was weary of standing and walking about among the exhibits.

Beyond this towered the S. F. Chronicle building, all oranges, save the many windows and their leafy frames, until the eye reached the black figs at the eaves and the red apples beneath and around the clock. It looked its best at night, when illuminated from the inside.

## Placer's Pyramid.

Between the Smartsville Castle and the entrance—just at your right hands as you came in, and corresponding to Butte's pyramid on the left—Placer county filled a large three-cornered space with tables encompassing another orange-clad pyramid. The concave inner face was covered with oranges by the county's Board of Trade. Some of the fruit was yet noticeably shaded with green. C. M. Silva & Son, Newcastle, displayed Wolfskill, St. Catherine, Du Roi, St. Michael, Wilson's Best, Mediterranean Sweet, Konah, Florida Gem and other varieties, which took the first premium in Class 4 (best exhibit of budded oranges other than Washington Navels). Beside them lay a few Chinese quinces—long, smooth ovals, looking somewhat like dwarf watermelons, but giving out the quince's delicious fragrance.

On the Placer table F. Gillet, of Nevada City, had sample boxes of French dessert prunes (Mont Barbet and Lot d'Ete), that were uncommonly fine.

Sherman Bros., Newcastle, showed little Picholine olives, dry and pickled; almonds; White Adriatic figs, dried, pickled and preserved; fig marmalade; Zante currants and very nice-looking sun-dried peaches—Bilyen's Late October.

H. E. Parker of Penryn exhibited in a showcase variously packed specimens of the "Bulletin Smyrna" fig—his success with which has become so famous—and outranked all his rivals. C. L. Delamater's White Adriatic figs also appeared to advantage.

On the pyramid, L. H. Cary's choice raisins from Auburn, in beautiful fancy packing, won the first premium of \$100.

Robert Hector of Newcastle arranged his Konah, Wolfskill, Navel and other oranges in neat little stacks, which were kept well together at the base by plush-bound circles.

## Olives and Oil.

Mrs. Emily Robinson of Auburn, with mountain olives and oil from her "Olivins Farm," 1400 feet above sea level, bore away the highest honors in three classes. She had 13 varieties of named olive, displayed in glazed boxes; two varieties of olives, pickled both green and ripe, in glass jars, and oil both of 1890 and '91 from the Mission, the Regalia and the Rabra. She also exhibited fine persimmons and a growing Japanese tea plant, the seed of which is much the shape and size of a small filbert, but a trifle darker.

J. W. Smythe of Newcastle showed some dried Chinese dates. They were smaller than the fruit of the date palm, somewhat shriveled and of a brownish-yellow color. We presume they came from the tree spoken of in our "Agricultural Notes" for Sept. 22, 1888, as growing beside a Chinaman's hut at Horseshoe Bar and supposed to be a chance seedling from imported fruit. (According to Henderson's "Handbook of Plants," the name "Chinese date" is given by foreign residents in the

north of China to the fruit of an improved variety of jujube, *Zizyphus jujuba*.)

Citrus nursery stock and ornamental palms from F. C. Miles' Aloha Nursery, Penryn, added grace to the whole Placer-county output, which was in charge of Robert Jones of Newcastle.

Beyond—eastward—an orange-olad river steamer, "D. E. Knight, No. 2," shown in a tank of water by Mrs. A. F. Meyer, Marysville, drew much notice, and the splash of the revolving stern-wheel had a special fascination for the youngsters.

N. B. Kirtley of the Sutter Independent exhibited a collection of clean, fair-sized oranges, both seedling and budded.

T. B. Hall of Sutter county showed California, Phillips and Eastern black walnuts; paper-shelled, hard-shelled and bitter almonds; pecans, persimmons, alfalfa seed and a variety of grain in jars.

Mrs. Gee of Marysville had quite an extensive and various display of canned and preserved fruits in glass; but however excellent the quality of her preparations may have been, they were put up in vessels of so many diverse patterns that it detracted sadly from their appearance and they were awarded only the third prize in their class.

Wheatland's fantastic shed of evergreens, with a red cabbage at each corner and pillars of maize on the cob, sheltered a bale of the hops that "rivet the world," around which were grouped French prunes, oranges and samples of cotton raised on Bear river bottom.

The next row of exhibits to the eastward (on a line with the Chronicle building) embraced about 500 Sicily lemons, uncured, raised in Marysville by Mrs. Parks and Mrs. Coombs. This fruit was displayed on a level table, and was uniquely arranged in symmetrical figures underlaid by cedar tips and mirror-plate.

## Yolo Raisins.

D. A. Jackson, Woodland, showed a few boxes of fine raisins, very attractively packed, and superb French prunes 20 to the pound, which won prizes amounting to \$100. The copy of his account with Griffith & Skelley, from Oct. 18 to Dec. 4, 1890, footed up \$17,204.55, for which he has received their checks on the Pacific bank—net proceeds of some 70 scores, with the second crop to hear from. Clusters of well-kept Emperor grapes gracefully overhung the prunes and raisins.

Dr. L. B. Holmes, also of Woodland, sent a tall glass jar of pickled olives, both green and ripe, which had met with some accident by the way and so did not appear at their best.

C. B. Kimball, Marysville, had a magnificent exhibit of oranges, admirably arranged. From the center of a table 10 feet square, so dressed with spruce and Christmas berries as to give the effect of a solid base, rose a classic pedestal and obelisk 18 feet high, encased in highly-colored oranges, except where green lemons marked the angles and formed the vertical inscription (on the four sides of the shaft): "State—Citrus—Fair—1891." The table around the base of the monument was filled with fine oranges three layers deep, with openings for three separate exhibits in Classes 4 and 5.

## Siskiyou Apples.

Near by stood Siskiyou's special contribution—apples, green, yellow and crimson, 15 varieties, arranged in pyramids, in charge of James Vance. Mr. Vance, who is president of the 10th District Agricultural Association, said he sent out 25 letters asking for fruit, and the people responded so well that he received much more than he could display.

## Sutter's Fort.

For 30 feet across the eastern end of the hall stretched a mimic "Sutter's Fort," the roof of its block-house rising to the Pavilion's window-caps and surmounted by a huge citrus bear. The whole structure was mailed in oranges, with dividing lines in evergreen. Quaker guns looked at you through the outer walls, and just within the gate stood a real cannon that had actually been in the old historic fastness. (The design was entered by Capt. G. B. Baldwin and Maj. F. H. Greeley, Marysville.) A bust of Gen. Sutter, and two of his portraits—presented by him personally to Mrs. Walters, of Linda, and Chas. Covillaud—were interesting relics of the earlier days of California.

Just outside the fort, southward, J. P. Onstott, of Yuba City, had an ample and taking display of the Thompson's Seedless raisins, which he made his name so favorably familiar to older readers of the RURAL PRESS.

Next came Geo. S. Cooky, Marysville, with a choice little output of olives on the branch and pickled, and olive oil; to which latter the painstaking committee (who not only looked at but tasted) awarded the second premium.

G. W. Hutchins occupied the southeast corner with a singularly neat exhibit of citrus fruits, dried figs and nuts. The oranges—about 1000 of them—were set up against the wall in some 80 diamond compartments of uniform size, but holding each from 9 to 20 oranges, according as the variety was Navel or St. Michael. On the table below there were shaddock and pomelo; the nicely packed figs which took the third prize; black and English walnuts, bleached almonds and peanuts.

Mrs. C. N. Jenkins made a very tasteful display of oranges in Classes 3, 4, 5, 6 and 7.

The little schooner "California," built by Misses Pratt and Fisher, showed a hull (a yard long) of dried prunes, spars coated with raisins, rail of gilded walnuts, and strings of popcorn for rigging. She was laden with min-

iature packages of grain and other local products. Her name was imprinted along her side in letters of red peppers, and she rode in a sea of jelly.

Mrs. Sarah S. Rogers, Marysville, displayed her lemons to great advantage in a sloping row of moss-trimmed boxes. Above them was set up an enormous horseshoe of oranges, with a great background of the same fruit, among which, in letters of deep red apple, appeared the legend "Good Luck," and the luck was with her—those lemons took the first premium.

## Colusa's Table.

Here on the south side, not far from the entrance, was Colusa's table, in care of W. H. Jones. The exhibit from this county, although not large, was comprehensive. There were huge stock beets and pie squashes, red cabbages, raisins, dried fruits and nuts in considerable variety, threshed grain, many showy jars of grapes, pears, apples, plums and peaches in preservative solution, wines and jellies, besides fresh Japanese persimmons and citrus fruits.

## Acme Fruit-Picker.

George Biddall of Woodland showed a model of a clever portable contrivance, to be set either on level ground or hillside, by means of which one may seat himself securely outside a tree, or among its branches, and go to picking or pruning at his ease. Mr. Biddall has applied for a patent on his device. As he has a picture of it preparing to show our readers, we defer a more particular description until the illustration is ready.

Crossing the hall once more, to explore the regions north of Smartsville's castle, we found just east of the speaker's platform a neat little lot of citrus stock entered by Robt. Williamson of the W. R. Strong Nursery Co., Sacramento.

Back of that, a compact show of nice-looking oranges, by several Tehama county growers, among them two Washington Navels by A. A. Bromlee, a box of purple plums that H. Bressler had gathered from the tree Jan. 14th, and samples of handsome olives from Chas. R. Maynew—all of Red Bluff.

## A Superb Combination.

Along the north wall, eastward of the stage, there extended for 40 feet a superb trio of exhibits, by Mrs. M. Wearman, the Colmena colony and Mrs. Mary Karr—forming virtually one continuous display, and one of the handsomest pictures in the pavilion.

First of the three a plane of oranges, ten feet wide, with citrus buttresses at either end and "Wearman" in crimson apples across its face, slanted from the floor back and upward to a shelf, waist high, where a gigantic swan seemed resting on a lake of lemons. The breast of the great bird was of oranges and lemons imbedded in cotton; its wings and back of figs, black and white in alternate bands, and shaded with dried fruit; and the snow-white neck and head of rice and sugar. The whole figure was set off by a green backing of cedar sprigs, in a frame of arching oranges. (This design was arranged by Peter Engel and others.)

Adjoining this was another citrus slope, with "Colmena" written across it in red apples, surmounted by a cottage gable, in which oranges, lemons, apples, "Osage orange" and green mosses were skillfully combined around a gorgeous little colored-glass window, producing an effect that was very pretty.

Then the grand embankment of "Oranges and Lemons from the Grove of Mrs. Mary Karr, Marysville, Cal.," rising into pyramids at either end, with thousands of the large, bright fruit symmetrically placed behind and above, in boxes and heaps and in panels about the windows. A big horseshoe set aloft upon an easel—all citrus fruits—was the central design of her display, and corresponded in a measure with the swan on the other side of the esthetic cottage gable. (It was interesting to walk out one morning to 6th and F streets and view Mrs. Karr's thrifty orchard, with orange trees as large around as a man's thigh, growing on a city lot overlooking the slough. Seeing is believing!)

In the northeast corner Gottlieb Steber of the Marysville Winery had oaks of different sizes built up into conical stands, on which bottled wines and grape brandy were arrayed, and the adjacent walls were ornamented with several fine sets of entlers, from which late white and purple grapes hung in beautiful clusters.

Between this corner and the end of "Sutter's Fort" was a little flat, covered with oranges from the grounds of the Convent of Notre Dame. A large cross of Japanese persimmons stood in the midst, and lemons, olives and green grapes of several kinds completed a very pretty exhibit.

The interest which had its focus at the pavilion in Marysville was plainly seen and felt throughout the city. The air was full of it; the thronged hotels and sidewalks were alive with it; and the abundance of oranges displayed in the windows of shops and other places of business, and wrought into signs, devices and mottoes of welcome along the streets, bore witness to the common glow of enthusiasm over the Citrus Fair.

The influx of visitors from all parts of the State—for not only Central and Northern California, but Los Angeles, San Bernardino and San Diego also, came to see with their own eyes—tried the lodging capacities to their utmost; and when the hotels and usual boarding-



places had been filled to overflowing, the efficient Committee on Accommodations found sleeping-room at private houses for hundreds (literally hundreds) of stranger guests to whom the dwellers opened hospitable doors.

The exhibition, at first announced for Jan. 12th to 17th inclusive, was wisely kept open two days longer and did not close until 12 o'clock Monday night. Taking gate receipts as a basis for calculation, the attendance was estimated as follows: Monday, 1000; Tuesday, 1600; Wednesday, 5000; Thursday, 4500; Friday, 4000; Saturday, 8000; Sunday, 1000; Monday, 1500—Total, 26,600. The surplus receipts, which amounted to \$2000 or \$3000, will probably be used to promote the success of fairs to come.

Careful inquiry among those who had charge of the principal county exhibits led us to conclude that about 180,000 oranges, all told, were in sight at the pavilion. Viewed from the gallery by daylight, when the crowd was absent and the morning sun shone in, the wealth of golden glory was even more impressive than under the glamour of electric light.

Among the notable incidents of the week were the formal opening ceremonies, at which Col. John P. Irish made the chief address with his usual felicity; the oration of Gen. Chipman, reviewing the development of orange culture in the Northern citrus belt; the baby show, where 34 youngsters under three years of age vied in pronouncing distinctly the words, "State Citrus Fair," and the defeated, being solaced with picture-books, went off happier than the five who won the coin; and the reception and happy speech of Gov. Markham, who made the fair a flying visit on Saturday afternoon, when the crush of attendance was heaviest.

The Marysville Independent band received many compliments for the music which it rendered throughout the week.

The many representatives of the press in town Thursday were tendered a complimentary drive among the neighboring orchards and a lunch at the Western Hotel. We wish in this connection not only to testify to the excellent management of the fair in general, but also to acknowledge special courtesies extended by Messrs. O'Brien, White, Harney, Kells, Bogue and Tharing of the Executive Committee.

While a great deal more might be said, we will close our account with these words from the Marysville Appeal respecting the Northern Citrus Fair for 1891: "The good it has done can never be fully estimated, but it is certain that for years nothing has taken place in the northern part of the State which has done so much to advertise and otherwise benefit the country as this has. It has awakened many illurians to the fact that good oranges can be raised here in large quantities and at good profits. It has interested many farmers and horticulturists in the growth of this most important industry. It has directed the attention of many Easterners to this part of the country, and will serve to turn the tide of immigration hither."

## AGRICULTURAL NOTES.

### CALIFORNIA.

#### Butte.

**NORTH POINT FRUIT INDUSTRY.**—Chico Enterprise, Jan. 21: The town of North Point, with its postoffice named Ochasset, is coming into notice as a fruit-growing section. It lies to the extreme northwestern portion of the county, bordering on the Tehama-county line. As yet the orchards there are young, but some of them are repaying years of toil.

**SMARTSVILLE ORANGES.**—Marysville Democrat, Jan. 21: The Committee on Awards in the late fair was composed of men qualified by experience to judge of the quality of oranges, and who, residing at a distance, were entirely free from local prejudice, therefore their special mention of the oranges grown at Smartsville is a compliment to them worthy of more than passing consideration: "Your Mediterranean Sweets and Seedlings are just approaching perfection, and those raised in the Smartsville district are the best we have ever seen."

**SPRAYING FRUIT TREES.**—Chico Chronicle-Record, Jan. 23: In riding through Gen. Bidwell's large fruit orchards, one cannot help but notice the great number of white trees which have been recently sprayed. At present there are five teams—three men to a team—engaged in spreading a solution of sulphur, lime and salt over the trunks and branches of the trees. The men and horses are well covered and clothed to protect their bodies. To those who have orchards and are not posted on this important subject, it would be time well spent to watch the workings. It will require about three months more to complete all the trees on this famous ranch, and spraying will be continued until the blossoms begin to show.

#### Fresno.

**LARGE WATERMELON FARM.**—Selma Irrigator, Jan. 22: W. A. Calhoun has leased 20 acres near J. L. Lake's, on the McCall road, and will plant it to watermelons the coming season.

**WHEAT LOOKING WELL.**—Selma Irrigator, Jan. 24: M. Wasgett returned Thursday evening from the West Side. He reports the wheat looking well in that section, but the late frosts have dried up the stock feed, and unless there is rain in the near future, stock will have a

hard time of it there. In fact, he says, stock is not doing well now.

**TO MAKE THE FAIR ATTRACTIVE.**—Fresno Expositor, Jan. 21: The directors of the Fresno Fair Grounds Association are busy themselves with plans that will result in a more general interest being taken in their work by the people at large and the agriculturists in particular. They have decided, with commendable enterprise, to make the fair and races more attractive than ever, and believe that with the active support of the people of this county they will not fail to accomplish this.

#### Los Angeles.

**LARGE RANCH WITH MANY INDUSTRIES.**—Pomona Progress, Jan. 22: E. J. Baldwin's Santa Anita rancho has 1200 acres in grapes, 16,000 orange and lemon trees, 2000 pomegranates, 3000 English walnut trees, 5000 almond, 2500 peach, 4000 pear, 2000 apricot and 1000 fig trees, and subsistence is furnished for 25,000 head of sheep, 5000 cows and pigs, and several hundred head of horses and mules. There is also 17,000 acres of grain. One hundred acres more of orange trees are being set out.

**THE BEST ORANGE TO GROW.**—L. A. Express, Jan. 22: A member of the Earl Fruit Co., in answer to the question, "Which is the best orange to cultivate?" said: "I would say Mediterranean Sweets and the Late Valencia. This latter variety is new in this country. I know of only a few farms that have it. There are a few trees on Judge Ross' farm, some on Capt. Thom's place, and the Chapmans have some at San Gabriel. This is a seedling year. I mean by that that seedlings have their "off" and "on" years, and this is their "on" year. This fact partly accounts for the large crop this year. The seedling is the most profitable because the trees bear very heavily. The Washington Navel is a fine orange and brings a higher price than the seedling, but the trees are small and they grow few on a tree; you would get one or two boxes off a Washington Navel tree and 10 or 12 off a seedling tree. A great many Washington Navels have been set out recently. They ripen early, and this is another feature against the profit of raising them. I estimate that the present crop is 33 per cent larger than the crop of last year."

#### Mercedino.

**INCREASING ATTENTION TO FRUIT.**—E. W. King in Ukiah Press, Jan. 24: Fruit culture in Mercedino is no longer an experiment. Several enterprising farmers in Anderson Valley are raising very fine fruit. J. D. Ball, near Bonville, recently informed me that he intended putting up a drier the coming summer. All along the Russian river from its headwaters in Potter Valley and in Redwood Valley to Cloverdale in Sonoma county, are small orchards all bearing fine fruit when properly cared for. Probably more prune and pear trees will be set out this winter and spring than ever before. Were it not for the scarcity of prune trees quite a large acreage would be added to what we already have. Many are planting peach and almonds for stock to graze on.

#### Orange.

**LARGE SALE OF ORANGES.**—Anahelm Gazette, Jan. 22: On Tuesday, Col. F. H. Keith purchased the Gilman orange crop for Thacker Bros., the consideration being \$7700. There were several bidders for the crop. Mr. Littlefield, bidding for a San Francisco house, offered \$7600.

#### Placer.

**TREE PLANTING.**—Dutch Flat Cor. Auburn Republican, Jan. 21: Our orchardists are taking advantage of the fine weather to set out plenty of fruit trees. B. Huysiak has a large force of men at work on his orchard near the depot.

**ORANGE CULTURE.**—Marysville Democrat, Jan. 22: There are more orange trees being set out in Placer this year than last in the ratio of nearly five to one. The local nurseries are said to have been long since exhausted, and great difficulty is being experienced by the orange-growers in getting the trees required for planting purposes. The planting will be limited only by the supply, according to the statements of Placer county's representatives at the fair. The original orange plantings in Placer county were chiefly of Florida trees, but now the home grown shrubs are usually given the preference. The high coloring and early ripening of the oranges from that county have secured to the growers exceptionally high prices for their crops.

#### San Benito.

**A BIG PRUNE YIELD.**—Azusa Pomotropical, Jan. 22: One of the heaviest yields of prunes ever reported in this valley is at hand, from an exact account handed us by W. R. Barbour. The prune trees produced an average of 300 pounds to the tree, the fruit selling at 2½ cents per pound, making the cash receipts per tree \$7. The fruit was grown by W. R. Powell, and he is the recipient of \$750 per acre, a result we think almost phenomenal, even in this land of rich horticultural strikes.

**EXTENDING THE DITCH.**—Hollister Free Lance, Jan. 24: The eyes of the farming portion of our community have for several years been turned to the orchards on the west side of Hollister bordering on the San Benito river, and many who have lately devoted their capital to fruit-growing have been induced to do so by the phenomenal success of those who several years ago staked their capital on, at that time in this county, an untried business. The Hollister Irrigation Co. is now constructing

ing a branch of its main ditch through this productive section, and when complete, which will probably be in time for spring irrigation, the whole belt through which it will run will be devoted to fruit and vegetable raising.

#### San Bernardino.

**PRICES FOR SUGAR BEETS.**—Chino Champion, Jan. 23: The lowest price that will be paid is \$3.50, and that for 12 per cent beets; and if the growers do their duty, as the factory people hope they will, \$4 will be the lowest price, with an easy chance to obtain \$4.50 to \$5 and possibly still more. The rate of \$3.50 was fixed to insure compensation to those who from any cause grow beets two per cent below the standard of 14 per cent. This was quite a concession on the part of the manufacturers, who know that higher grade beets can be grown to the great advantage of the farmer as well as that of themselves. It was, however, thought that mistakes of one and another kind would occur the first year, whereby the standard would not be reached, and hence the rate of \$3.50 for beets 2 per cent below standard, with 25 cents a ton for every per cent above 12. Thus for standard beets \$4 is the lowest price; and those that run from 14 to 20 will command correspondingly increased prices. Any one can apply the figures.

#### San Diego.

**PINEAPPLE CULTURE.**—S. D. Union, Jan. 22: The pineapple plants with which Riley R. Morrison began experimenting last April, among the rows of his rose garden, are coming on vigorously. But four apples were produced last fall, and at the expense of these plants full vigor, as they should be a year old before being permitted to bear. Mr. Morrison has found that they can stand a temperature as low as 28 degrees. About a month ago he received 500 more plants gathered from Cuba, Georgia and Southern Florida. They represent 12 of the best-known 20 varieties, including the red Spanish, Sugar Loaf, Abakchi, Prince Albert, Egyptian Queen and Lord Carrington. He says that a year's test will determine which of these is best adapted to the climate and soil. By the 20th a shipment of 1000 more is due him from Tampa, Florida. These will be set out in South San Diego at the head of the bay, near the new Morrison station of the Coronado road. This tract is shell ground and the very best for such growths; it has just been plowed. Then about July a carload of slips, or 40,000, will arrive from Florida. These will be mostly the Red Spanish and Sugar Loaf varieties, and they are also to be set out at the head of the bay on a 10-acre tract about a third of a mile south of the station. It is the intention to plant with them Cocosnut, Chirimolla (custard apple), Star Apple, mango, breadfruit tree, coffee and tea trees. Eight of these latter were secured several weeks ago from Washington, and are already putting out new leaves. The object is to make this sand-dune-protected tract an experimental station.

#### San Joaquin.

**RAIN WANTED.**—Lodi, Jan. 22: Farmers are looking "blue" over the prospect for their grain crops the coming season. Not alone in San Joaquin county is the present dry weather felt, but also generally all over the State. The only thing for the farmers in this vicinity to do is to get in and keep the promoters of the old Mokelumne ditch along by bonding their broad acres and giving rights of way.

#### San Luis Obispo.

**PLOWING AND SEEDING.**—Cor. S. L. O. Tribune, Jan. 23: Seeding is about finished for this section (Creston), especially so for the grain crop. A few, however, of our rancheros are plowing and sowing for the purpose of securing a good crop of grain hay. A very large acreage for grain and hay is being put in this year. Stasuly & McDonald report 500 acres seeded to wheat; Steele & Green, 1100; Richard Barber, 700 to wheat, and about 40 to barley, and Johnson & Lind, about 500.

**ARROYO GRANDE.**—The Grangers and Farmers' Alliance men here had all the rain needed thus far agriculturally. However, a wet shower of say two inches would not come amiss at this time, which would set the wet-weather frogs to croaking, instead of croaks from the dry-season stifflings.

**ADELAIDE.**—Strolling over the country, I noticed every one busy from early morn till late eve rushing along with the plow and harrow. I learned that there are within 10 or 12 miles square on the plains, about 100 men who will sow from 150 to 2000 acres of land each. Joe Moody will sow from 1500 to 2000 acres.

**ESTRELLA.**—Many of the farmers have finished putting in their crops and are now summer-fallowing.

**SIMMLER.**—Mr. Dowling bought 1000 acres of land near here last fall, and is going to put in 150 acres of grain for hay and seed for another year, when he intends putting in the whole tract. Mr. Brumley is driving ahead with two large teams, averaging about 12 acres of ground per day. Shoenfeldt & Lane have put in a large crop and are going to summer-fallow 600 acres for next year for early sowing.

#### San Mateo.

**STOCKYARDS AND PACKING HOUSES AT SAN BRUNO POINT.**—Redwood City Gazette, Jan. 24: P. E. Iler of Omaha, as manager of the South San Francisco Land and Improvement Company and Stock-yards, has purchased 340 acres of land between the Mission road and the San Francisco Bay, extending from Baden Station three miles in a northeasterly direction to San Bruno Point, where will be located the

stock-yards and the abattoirs, packing-houses and other buildings. There will be two brick packing-houses, each seven stories high, and they will be thoroughly equipped with all the latest devices in time and labor saving machinery. The pens will be carefully constructed, some covered and others open. There will be accommodation for 10,000 head of cattle, 10,000 sheep and 8500 hogs. Stables with dimensions of 160x61 feet will be built, and here horses will be boarded, bought and sold. The superintendent has bored an artesian well 1380 feet in depth on the land near the railroad station, with a daily capacity of 400,000 gallons. Four or five other wells will be bored, and a reservoir constructed on a hill overlooking San Bruno Point. A sample of the water is now being analyzed in Chicago for the purpose of ascertaining the curative properties of the water, with a view to its use in curing meat. The contract has been let for dredging the course of a canal which will be 300 feet wide, enabling vessels drawing 22 feet of water to come up to San Bruno Point within a quarter of a mile of the San Bruno road, a distance of one and one-half miles. The canal will be constructed of wood and stone.

#### Santa Cruz.

**UTILIZING THE EUCALYPTUS.**—Santa Cruz Sentinel, Jan. 24: J. E. Armstrong has made good use of a grove of eucalyptus trees on the Sea-Side Home property by cutting them down to a height of 16 feet, then placing a five-foot board walk on the tops. The circle is 110 feet in circumference. A railroad surrounds the whole, and an easy ascent is made by means of steps. From the walk a fine view of the bay and mountains can be obtained.

#### Shasta.

**THE FRUIT INDUSTRY.**—Anderson Enterprise, Jan. 22: In looking through the different localities of this beautiful valley and observing the large number of men that are employed in preparing ground for and planting fruit trees, our anticipations are growing stronger and stronger for the brilliancy of the future that lies before us. Past experience has shown California that in fruit-growing is the future independence of her people, and that from it, with proper industry, care and training, will proceed a commonwealth not equaled on the globe, in like territory, of well-to-do, home-loving and home-living people. We start three miles northwest of town on the river bottom, on the west side, and proceed to four miles east of southeast of town, making seven miles up and down the river, and we find nearly every land owner, large and small, doing a planting of from five to 100 acres of fruit trees. Some are doing their first planting, while others are adding to already large or small, old or young orchards. In looking over this ground we are imbued with a new and much stronger feeling of faith for prosperity. But this is not our only ground that is being improved, for on the hills and slopes to the west of us for miles, and the plains to the north, the spirit of progression is before us.

#### Sonoma.

**LARGE ACREAGE SEEDED.**—Santa Rosa Republican, Jan. 22: The farmers took advantage of the first spell of good weather and sowed a large acreage, and then, when the rains slackened up, they went to sowing again and improved every available piece of ground. The grain that was sowed early is all up and looking fine, and prospects are exceptionally flattering for a good crop. Wheat, oats and barley promise splendid. Nearly all of the farmers will have their late sowing done this week. Last spring the weather was so unfavorable that they could not get their grain in, and the weather has been so fine this winter that they have improved it.

**FRUIT CROP PROSPECTS.**—Santa Rosa, Jan. 20: The fruit outlook is very favorable so far as can be seen. The frosty mornings have kept the buds back, and have been beneficial that way. Nearly all of the orchardists are busy pruning now, and are getting everything ready for a big season's work.

**PROFIT IN POULTRY.**—Santa Rosa Democrat, Jan. 24: J. S. McClemmy, lessee of a small farm on the Buena Vista tract, has raised, the past year, 527 chickens and 217 turkeys. Of the chickens, 317 are laying hens, whole, with eggs at 40 cents per dozen, the present market price, net a nice little sum daily. The chickens and turkeys were raised with very little care and attention. To the question as to whether the raising of poultry will pay in Sonoma valley, Mr. McClemmy's experience answers the question in the affirmative.

#### Sutter.

**GRAIN GROWING RAPIDLY.**—Yuba City Farmer, Jan. 23: The warm days are doing much toward bringing up the newly sown grain and warming the ground, thus allowing that which has been kept back by the cold, foggy weather to make a rapid growth. The fields sown early are now looking fine, with a thick covering of rich, verdant grain.

**A GOOD MOVE BY FRUIT GROWERS.**—Yuba City Independent, Jan. 23: The question of preparing for and arranging a permanent exhibit of Sutter county's products was discussed at the late Horticultural Convention with considerable enthusiasm. The members who spoke concurred in the belief that a start ought now to be made and unless formed around which might be gathered, from time to time, such products of Sutter county as might be deemed worthy of preservation for the purpose of exhibition as occasion might arise. If the people had a place where they could take and deposit



articles of their own production possessing peculiar merit, it was thought we would soon have material for a large exhibit which could be utilized at any time without the trouble and expense of making special collections for every occasion. To make a start in this direction, it was moved by B. F. Walton that the Chair appoint a committee of three to wait on the Board of Supervisors at their next meeting and ask them to set apart space in the Court House where stands and cases could be placed, for the proper collection and preservation of Sutter county products suitable for exhibition. The motion was carried unanimously, and the Chair appointed, as such committee, B. F. Walton, Mrs. H. S. Jones and Mrs. A. B. Van Arsdale. By request, Mrs. R. C. Kells was afterward added to the committee.

## Tulare.

**LARGE TREE PLANTING.**—Visalia Times, Jan. 22: Last Monday the Superintendent of the Visalia Fruit and Land Company, Captain C. J. Barry, took charge of the property recently purchased by the company, and this week the work of planting trees began. The ground had already been prepared and was in fine condition for the work. There will be planted in prunes one hundred and seven acres, 5000 peach trees and 500 pears. There are already twenty-three acres in raisin grapes, and more will be set out. There are forty-five men at work, using thirty-seven horses and ten oxen. The land was formerly cultivated to wheat and barley, and was grazed by hogs.

## ARIZONA.

**CATTLE FOR CALIFORNIA.**—Tucson, Jan. 17: The Bahacomoni Cattle Co. starts 2000 cattle on the trail to-morrow for Salinas, Cal. The trail is via Yuma and Los Angeles, then up the coast. The company's estimated cost of driving is \$2 per head, while the present railroad rate, with cost of feed, would be about \$6 per head. This and several other large drives soon to be made is owing to the inability of the cattlemen there to pay railroad rates. It is understood among cattlemen there that the California trail will be used exclusively in the future for large shipments of cattle.

Eminent physicians everywhere recommend Ayer's Cherry Pectoral as the most reliable remedy that can be had for colds, coughs and all pulmonary disorders. Ask your druggist for Ayer's Almanac; it is the best publication of its kind, and full of information.

## Lovett's Guide to Horticulture.

The improvement in Catalogue making has been so great of late years that sometimes we imagine that we have reached the limits of the possible in this direction. Especially is this the case with Lovett's Guide to Horticulture for Spring of 1891, which now lies before us. It is really a book of some 90 pages, profusely illustrated throughout, finely printed and adorned with several colored lithographs. It is full of practical information concerning Small Fruits, Fruit and Ornamental Trees and Shrubs, Vines, Cespices, Hedge Plants, Roses, Hardy Herbaceous Plants, Nuts and Nut Trees, etc., etc., with careful descriptions and valuable suggestions, making the book of much value to all who possess a foot of land. The illustrations are most elaborate and represent nature, not fancy; the text is truthful and accurate, unobtrusive and pleasing. Here is artistic taste united to practical information—both strikingly original. It is a guide indeed worth having and is mailed free by the J. T. LOVETT CO., LITTLE SILVER, N. J., or with colored plates for ten cents.

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TRAGEDY PRUNES, YEARLINGS; EARLY CRAW. Ford Peaches, yearlings; French Prunes, June buds. Call or inquire at 910 Fifth Street, SACRAMENTO, CAL. INGLESIDE NURSERY COMPANY.

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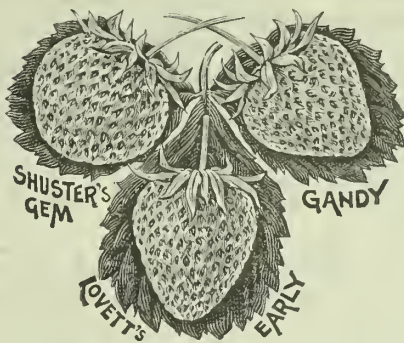
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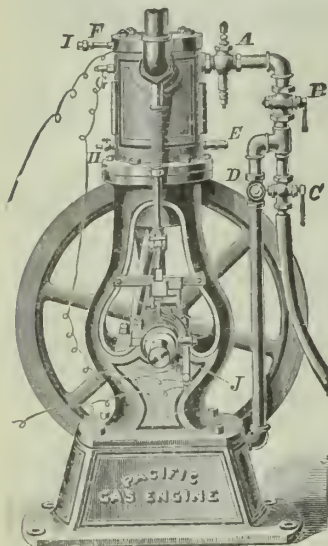
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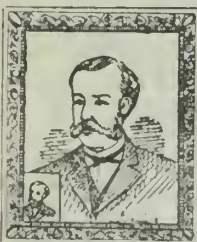
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BETTER, Both Horse & Hand, THAN EVER; better and more money saving. We cannot describe them here, but our new and handsome catalogue is free and interesting. A goodly number of new tools will meet your eye there. Among these, Gardener's Harrow, Cultivator & Pulverizer combined, adjustable teeth; Market Gardener's & Beet Grower's special Horse Hoe with Pulverizer; Special Furrower, Marker and Ridger, adjustable wings; Sweet Potatoe Horse Hoe, four tooth with vine turner; Heavy Grass Edger and Path Cleaner; new Nine Tooth Cultivator and Horse Hoe combined; Special Steel Leveler and Pulverizer combined; all interesting, nothing we have ever made so practical or perfect. Some improved things too are grafted upon our older favorites. A capital LEVER WHEEL, instantly adjustable for depth, is a great feature; put on all '91 goods unless ordered otherwise. Nor have our Hand Seed Drills been forgotten in the march of improvement, nor our Double and Single Wheel Hoes, Garden Plows, Grass Edgers, Etc. Some of them are greatly altered for the better; yet do not forget that no novelties are adopted by us without actual and exhaustive tests in the field. We therefore guarantee everything exactly as represented. Send for Catalogues now. S. L. ALLEN & CO., Philadelphia, Pa.



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## Squirrel Exterminator.

This is an apparatus for turning straw and sulphur and also forces the fumes down their holes which never fails to kill. I will give \$100 in case the exterminator does not kill (if properly applied) every ground squirrel that its deadly fumes comes in contact with. Thousands are in use. Price \$3.00. Send for circulars to

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"Greenbank" 98 degrees **POWDERED CAUSTIC SODA** (tests 99.8-10 per cent) recommended by the highest authorities in the State. Also Common Caustic Soda and Potash, etc., for sale by

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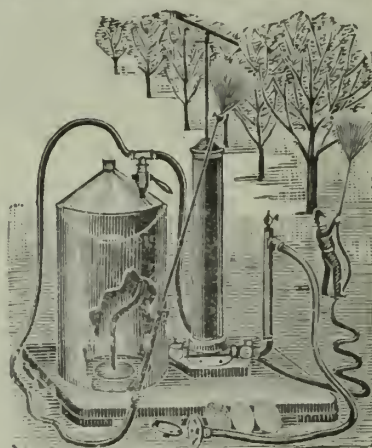
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### Acme Spray Pump.

This is a strong, light bucket pump, and is just what has been needed by small Orchardists, Farmers, Stock and Poultry Raisers. This pump will stand a pressure of from 50 to 75 lbs. to the square inch. When charged it will keep up a continuous spray from 5 to 15 minutes, without pumping, according to the amount of air in the reservoir.

Sample pump sent complete for Spraying, with Suction Hose, Strainer, Discharge Hose, Rod, one Lime and one Chemical Nozzle, for \$13. All my pumps have brass and Rubber Valves.

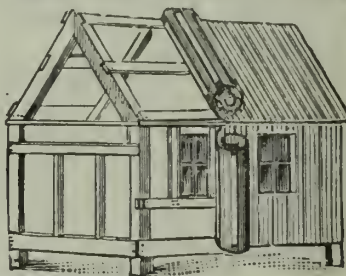
Spray Rods made to spray, from the ground, from 1 foot to 30 feet high and at any angle.

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Used extensively on Houses, Factories, Warehouses, Etc. Absolutely Water-proof. Send 2c for Illustrated Catalogues and Samples.

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The Best, Lightest, Cheapest Engine in the world. Can be arranged to Burn Wood, Coal, Straw or Petroleum. 5 or 8 H.P. Mounted on skids or on wheels.

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The only bit made that can be used on a gentle horse or the most vicious horse with equal and entire success. 50,000 sold in 1889. 75,000 sold in 1890.

**THEY ARE KING.**  
Sample mailed X.O. for \$1.00 Nickel \$1.50. Extra.

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J. P. Davis, Eng.



## List of U. S. Patents for Pacific Coast Inventors.

Reported by Dewey &amp; Co., Pioneer Patent Solicitors for Pacific Coast.

The following brief list by telegraph for Jan. 27, will appear more complete on receipt of mail advice:

California—Henry Albert, Crescent City, assignor of two-thirds to T. R. Hayes, of Pasadena, can-labeling machine; George F. Andrews, Riverside, extensible tree prop; Louis E. Baker, San Francisco, type-writing machine; Stephen S. Black, Pasadena, agricultural implement for irrigation; Milton Dehar, San Jose, invalids' bathing appliance; John E. Foster, Ferndale, harness; William S. Gage, San Francisco, coin wrapper; Henry O. Hooper, San Francisco, reverse movement attachment for type-writing machine; Edward M. Knight, San Francisco, filter; Joseph P. Magny, assignor of one-half to H. A. Davis and F. Wilson, Oakland, cash balance; William A. Todd, San Francisco, horsehoe; William B. Wall, M. I. Jones, Tustin, and A. D. Bishop, Orange, fumigating trees and other plants; Ruel W. Whitney, San Francisco, type-writing machine; Fred W. Wood and J. Fowler, Los Angeles, guard for street-railway cars.

Washington—Oleo F. Febrsson, Tacoma, folding paper bath; Nathan A. Wheeler, Alpowa, calendar.

NOTE.—Copies of U. S. and Foreign patents furnished by Dewey & Co., in the shortest time possible (by mail or telegraphic order). American and Foreign patents obtained, and general patent business for Pacific Coast inventors transacted with perfect security, at reasonable rates, and in the shortest possible time.

## A Veterinary Feat.

San Francisco will soon be able to brag of a big, strong, healthy draught horse with a glass eye, for yesterday Dr. Creely, the veterinary surgeon, performed an unusual operation on a horse owned by Le Roy Brundage, to make a vacancy for the artificial optical member. The glass eye will not be inserted for three or four weeks yet until the parts are thoroughly healed; but the horse, minus one eye, will be at work in three or four days.

A malignant cancer had grown on the membrana nictitans of the eye and the organ was badly diseased. Several times the knife had been used on the diseased part, but each time the cancer grew out again. Yesterday afternoon the big animal was strapped to the operating table, and after being placed under the influence of anæsthetics the entire eye was cut out and the optic nerve severed. The operation was performed as neatly, expeditiously and with as little inconvenience to the horse as a similar operation would cause a human being. Fifteen minutes after the operation the horse had fully recovered himself and was as lively and chipper as ever.—S. F. Chronicle, Jan. 10.

## Palermo.

During the time of the late Citrus Fair, the writer made a visit to Palermo, the picturesque village in the center of the Queen colony of the northern citrus belt of our State.

It was a very gratifying result to see trees only three years old bearing large Navel oranges and groves of small orange trees in any direction you might look. The feature of this section is that each orange-grower is preparing to enlarge his orchard, and the attraction of peerless Palermo as the home for increased immigration has stimulated a steady increase in building homes. The Palermo Progress, a very attractive journal published at Palermo, has a well-written article on the progress and growth of this colony, and what is most desirable to the promoters is, that the surrounding orange orchards outside of Palermo have made this a prominent point for the shipment of oranges this year.

The question of raising oranges as a crop for commercial purposes has been settled in this section beyond a doubt, and it is confidently expected that "Pretty Palermo" will become a large and populous city dotted with luxurious homes and the center of the most favored citrus belt of Northern California. J. C. H.

## A Healthy Showing.

The Home Mutual Fire Insurance Company of San Francisco was incorporated in 1864, which makes it one of the oldest companies in the State. It has just filed with the Insurance Commissioner its 27th annual exhibit, showing losses paid since organization of over \$3,000,000. Its assets at beginning of current year were but little short of \$900,000, and its surplus to policy-holders about \$850,000. After setting aside a reinsurance reserve of over \$260,000 and its capital of \$300,000, it has a net surplus over everything of \$279,000 which is almost equal to its capital. Its income in 1890 was about \$400,000. Its officers are: President, J. F. Houghton; vice-president, J. L. N. Shepard; secretary, Charles R. Story; general agent, Robert H. Magill.

## NEWSPAPER AGENTS WANTED.

Extra inducements will be offered for a few active canvassers who will give their whole attention (for a while at least) to soliciting subscriptions and advertisements for this journal and other first-class popular newspapers. Apply soon, or address this office, giving address, age, experience and reference. Special inducements to old agents.

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## Don't Fail to Write.

Should this paper be received by any subscriber who does not want it, or beyond the time he intends to pay for it, let him not fail to write us direct to stop it. A postal card (costing one cent only) will suffice. We will not knowingly send the paper to any one who does not wish it, but if it is continued, through the failure of the subscriber to notify us to discontinue it, or some irresponsible party requested to stop it, we shall positively demand payment for the time it is sent. LOOK CAREFULLY AT THE LABEL ON YOUR PAPER.

From our issue of Jan. 3.]  
Please Remit.

The beginning of a new year is a good time to settle up the debts of the old ones. We are obliged to remind those who owe the PRESS on subscription account, that it will be a great convenience to us if they will soon remit what is due. Those who can also pay in advance will also do us timely and well-appreciated favor. We are doing our best to present a very valuable paper, representing carefully, earnestly and conscientiously the welfare of its intelligent readers and the best interests of the arts, sciences and mining and mechanical industries of the Pacific States.

To do this we deprive ourselves of some of the most lucrative lines of patronage available to the average newspaper.

By paying as promptly as possible, friends, you will greatly encourage us in our sincere efforts to favor you and the best interests of your calling.

## Bogue's Nursery.

Three years ago Mr. J. T. Bogue, an experienced nurseryman, secured 105 acres of land lying 1½ miles west of the Feather river and 3 miles south of Yuba City that had been used only as a grain-field for the last 20 years, and on the 17th day of February, 1888, turned the first furrow with a plow. He had a well-stocked nursery to draw from in Seneca county, New York, his former home, and with large importations from France he has by sagacious and well-directed efforts turned this California grain-field into one of the best plants in this State. Previous to selecting this fertile spot he spent a year in travel, taking in the entire State. Results have proved the wise selection he made, as has been demonstrated by the growth of trees and plants which take in the entire list of deciduous and citrus trees.

A RURAL representative, in company with some distinguished lady visitors from the East, accompanied Mr. Bogue in a family carriage from Marysville during the late Citrus Fair to inspect his nursery. The route from Marysville across the bridge that spans Feather river through Yuba City, is skirted on either side with rows of evergreen and great stately eucalyptus trees, while the spacious yards surrounding the picturesque homes are stocked with orange trees loaded with yellow oranges and with other semi-tropical plants and trees. In one of these yards could be seen the orange and lemon trees, each having their respective fruits in bearing, the orange trees bending with their load of fruit beside the blooming magnolia and rose tree.

There were 25 men working in the nursery, a goodly number of them planting almonds on a 20-acre lot, while two freight cars loaded with fruit trees were standing on the sidetrack of the new railroad, lately opened from Knight's Landing to Marysville, and which runs along by the side of this nursery. One car was destined for Los Angeles and San Diego.

It is marvelous to witness the transformation of this California grain-field under skilled hands to such a wonderful development in the line of fruit trees and plants.

This is a very fertile section and the growth of tree and plant is beyond conception or belief, unless by eye-witness. Our reporter measured trees of two years' growth, four and five inches in diameter, and Bartlett pears from one year's growth, eight and nine feet high, and the Hungarian prune over 10 feet high in one year's growth from the scion.

Mr. Bogue has followed his present occupation continuously from boyhood, and has made the subject of horticulture and fruits an especial study. He has traveled extensively and made a personal inspection of the leading nurseries in the United States. The adaptability of this section in fertility of soil, climate and rainfall has been fully confirmed by his three years' experience in growing trees of unusual size and vigor without irrigation. During this season he will import a large stock of fruit trees from France and Europe with the design of making his, in quality and variety of tree and plant, the model nursery of the Pacific Coast.

## Bean Spray Pump.

During the recent Citrus Fair at Marysville, Mr. Crummy, the manager, had one of the Bean spray pumps at the Pavilion and on several occasions showed its merits in practical operation. Our RURAL representative saw more than a dozen of fruit-growers who had used the Bean spray pump in their orchards for over two years. Among them there was but one expression and that was in the highest commendation, and as one large fruit-grower said: "It is the best and most reliable pump ever used in an orchard." The company builds five sizes adapted to trees, grain-houses, chicken-houses, barns and fences.

Parties interested should send for circular. Address Los Gatos, California.

ASPINWALL POTATO PLANTER.—We have received a neat illustrated catalogue of the Potato Planter manufactured by the Aspinwall Manufacturing Co., Three Rivers, Mich. It gives clear descriptions and diagrams of the machine and its use, and strong testimonials from those who have used it. The catalogue should be read by potato-growers.

## Artesian IRRIGATED FARM TO RENT.

Over 100 acres of improved land, good 7-room farmhouse, barn, etc., plenty of shade trees, 7 acres of bearing orchard, 20 acres of alfalfa, to rent on shares or low for cash. Within 7 miles of Tulare city. A good offering for a dry season. Also 320 acres of volunteer grain or hay adjoining. Address E. M. Dewey, Porterville, or A. T. Dewey, 220 Market St., San Francisco.

## Alhambra Fruit Ranch.

The great fruit ranch one and one-half miles east of Martinez, belonging to the estate of Dr. Strentzel, is now being surveyed and subdivided into lots or parcels suitable for homes and small fruit farms.

This section is well known as one of the most favored portions of this State for raising table grapes, Bartlett pears and peaches for shipping and canning. This immense fruit farm has been the life work of the late lamented Dr. Strentzel, and is stocked with the finest varieties of grapes for table use; and owing to the favored location has produced a grape that was firm-fleshed, so that each year has increased the demand for shipment to all of our northern and eastern cities. The heirs-at-law are Mrs. Strentzel and Mrs. John Muir, his daughter, who wish to retire from the active duties of fruit-raising, reserving only the magnificent dwelling as a home. Prof. John Muir has been appointed administrator, and his field of travel and scientific research makes it an onerous task to carry on this extensive fruit ranch.

As soon as the subdivisions are made and mapped, they will be offered at private sale on terms of one, two and three years. It is stated that the product of this entire vineyard and orchard yielded over \$200 an acre last year.

We shall endeavor to record the progress of this desirable project of dividing this well-known fruit ranch into small parcels, as it seems likely to prove a popular proceeding.

## CHICAGO, MILWAUKEE &amp; ST. PAUL RAILWAY.

Electric-Lighted and Steam-Heated Vestibuled Trains between Omaha, Council Bluffs and Chicago.

Steam-Heated and Electric-Lighted Vestibuled Trains between Chicago, St. Paul and Minneapolis. Finest Dining Cars in the World.

Free Reclining Chair Cars between Omaha and Chicago.

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Pacific Coast Passenger Agent,  
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Office, No. 138 Montgomery St., under Occident Hotel.

## A Great Agricultural House.

The leading agricultural firm of Northern California, White, Cooly & Cutts, occupy a building 75x155 feet, fronting on First street, two stories high, besides two large storehouses adjacent thereto in the city of Marysville, and carry a complete stock of general hardware and agricultural implements. The individual members of the firm are interested largely in fruit-raising and take a lively interest in assisting in the development of the various enterprises of this section of our State.

Our reporter while in Marysville saw a number of the Wagner Cultivators, manufactured by the Judson Manufacturing Co., in their store, and learned from farmers, horticulturists and fruit-growers that in point of construction and adaptability for thorough and rapid cultivation it is one of the best cultivators they had ever used.

## Complimentary Samples.

Persons receiving this paper marked are requested to examine its contents, terms of subscription, and give it their own patronage, and as far as practicable, aid in circulating the journal, and making its value more widely known to others, and extending its influence in the cause it faithfully serves. Subscription, paid in advance, 5 mos., \$1; 10 mos., \$2; 15 mos., \$3. Extra copies mailed for 10 cents, if ordered soon enough. If already a subscriber, please show the paper to others.

JUDGE PHILIP KEYSER died at Marysville last week. He presided in many important cases, but is best known by his anti-debris decisions.

By a very ingenious and original process, Dr. J. C. Ayer & Co., of Lowell, Mass., are enabled to extract the essential properties of the materials used in the preparation of their famous "Ayer's Sarsaparilla," thus securing a purity and strength that can be obtained in no other way.

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INCORPORATED A. D. 1864.

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THE SONGS OF IRELAND. A new and carefully revised collection of the best and most celebrated Irish songs. Some of the best melodies in existence, and bright, spirited words, 66 songs. Price, \$1 in heavy paper, \$1.25 in hds., and \$2 in gilt binding.

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PIANO CLASSICS, Vol. 1, . . . 44 pieces.  
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From Sophia Island.

Put up in bags. For sale in lots at \$15.00 per ton, delivered on board car or vessel.

THE ANALYSIS OF THIS GUANO IS AS FOLLOWS:

Insoluble Phosphoric Acid.....	24.61%
Organic Matter and Ammoniacal Salts.....	32.64
Water.....	5.90
Silica.....	0.21
Peroxide of Iron.....	0.17
Lime.....	33.21
Magnesia.....	0.82
Carbonic Acid.....	2.01
Alkalies and loss.....	0.53

2.30% Ammonia, equivalent to 1.89% Nitrogen.  
(Signed) THOMAS PRICE & SON.

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For Exterminating Gophers and Squirrels.

Recently introduced from Europe. The smoke of a Fume-Candle, lighted and placed in a gopher or squirrel hole, kills all the animals in the hole. Cannot harm domestic animals. Twenty candles in each package. Price 25 cents. Sample package, by mail, 30 cents. Agents wanted. ED. LAMBERG, Nordhoff, Cal.

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Situation Wanted as Landscape Gardener by a German. San Francisco or vicinity preferred. Three years experience in parks on Coronado Beach. Address, W. VORTRIEDE, Coronado, Cal.



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Six lines or less in this Directory at 50c per line per month.

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**REGISTERED HOLSTEIN CATTLE**. Also best thoroughbred Poultry and Eggs. Address Hibbard & Ellis, Santa Rosa Breeding Association, Cal.

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**PURE-BRED HOLSTEIN FRIESIAN CATTLE** for sale. Bonnie Brae Cattle Co., Hollister, Cal.

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**M. D. HOPKINS**, Petaluma, importer and dealer in Eastern registered Shorthorns, Red Polled Cattle, Holsteins, Devons and Shropshire Sheep.

**GEO. B. POLHEMUS**, Coyote, Cal. Holstein-Friesian cattle, comprising males and females on advanced register. First premium in great milking test at State Fair, 1889, was won by a member of this herd.

**PETER SAXE & SON**, Lick House, San Francisco, Cal. Importers and Breeders, for past 18 years, of every variety of Cattle, Horses, Sheep and Hogs.

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**JOHN McFARLING**, 706 Twelfth St., Oakland, Cal., Importer and Breeder of Choice Poultry. Send for Circular. Thoroughbred Berkshire Pigs.

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**DELLWOOD POULTRY YARDS**, Napa. Light and Dark Brahmas, Buff Cochins, Langshans, Plymouth Rocks, Silver and Golden Wyandottes, Houdans, Minorcas, Spanish, Brown, Black and White Leghorns, Pekin Ducks. Birds for sale. Eggs, \$2 per 13.

**CALIFORNIA POULTRY FARM**, Stockton, Cal.; send for illustrated and descriptive catalogue, free.

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**W. O. DAMON**, Napa. Fowls and Eggs, \$2.00.

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**ANDREW SMITH**, Redwood City, Cal.; see adv't.

### SWINE.

**JOSEPH MELVIN**, Davisville, Cal., Breeder of Poland-China Hogs.

**WILLIAM NILES**, Los Angeles, Cal. Thoroughbred Poland-China and Berkshire Pigs. Circulars free.

**TYLER BRADSHAW**, San Jose, Cal., breeder of thoroughbred Berkshire and Essex Hogs.

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**APIARIAN SUPPLIES** for sale by Mrs. J. D. Enns, Napa City, Cal.

## IMPORTANT!

That the public should know that for the past Eighteen Years our Sole Business has been, and now is importing (Over 100 Carloads) and breeding Improved Live Stock—Horses, Jacks, Short Horns, Ayrshires, and Jerseys (or Alderneys) and their grades; also, all the varieties of breeding Sheep and Hogs. We can supply any and all good animals that may be wanted, and at very reasonable prices and on convenient terms. Write or call on us. **PETER SAXE and HOMER P. SAXE**. San Francisco, Cal., Oct. 22, 1888. **PETER SAXE & SON**, Lick House, S. F.

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DISHFACED BERKSHIRE PIGS,



IMPROVED POLAND-CHINA PIGS,

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Young Stock for sale at reasonable prices. Every animal guaranteed.

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SEED CO.,  
Grass, Field, Garden and Tree Seeds, Onion Sets, Etc.  
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**FRAUDULENT PARTIES** have been selling an article, claiming theirs to be the same, and, in order to mislead, have added a prefix to "Manhattan." Our genuine food is called simple "Manhattan Food," with the Red Ball Brand.

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Import Direct from Europe and sell Full-Blooded Yorkshire Cleveland Bay, Oldenburg German Coach and English Shire Draft Stallions. The best Coach and Draft Horses in the world. Stables permanently located.

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Imported, Registered Percheron Stallions  
FROM TWO TO FOUR YEARS OLD.

ALSO,

### FIVE SELECT MARES.



Having spent over one year in France selecting above stock, think I have a better grade than has ever before been offered for sale in this State. Having been here one year, they are thoroughly acclimated. For further particulars, address

**J. C. SMITH,**

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**H. WILSEY & CO., PETALUMA STABLES,**  
Main Street, opposite Plaza. We will sell all our imported French and English Draft Stallions, that have proven themselves good foal-getters, at a bargain, as we desire to close a partnership business. Parties intending to purchase will please examine our stock. No reasonable offer refused. Address H. WILSEY & CO., Petaluma, Cal.

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BREEDER OF REGISTERED  
Shorthorn, Aberdeen, Angus  
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Italian Queens, \$2.50 each; Black Queens, \$1 each. Swarms from \$2.50 each; Smoker, \$1. Comb Foundation, \$1.25 per pound; V-groove Sections, \$4 per 1000 Comb Honey wholesale and retail; Hives, etc. W. TITAN & SON, The Homestead Apley, San Mateo, Cal.

## POULTRY, ETC.

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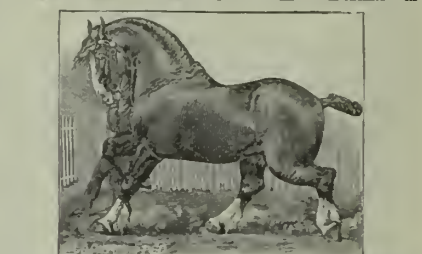
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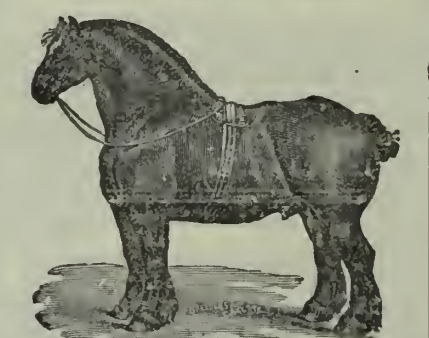
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is certainly the best preparation of its kind in the market. Ranchers, Stock Raisers and Horse Owners of every description will tell you that it does good work every time.

MRS. H. H. MOORE & SONS, Stockton, Cal.—GENTLEMEN: In answer to your inquiry, would state that I used your H. H. H. Liniment on my Holland prize-winning cow, "Lena Menlo," for a wrenched shoulder, and it relieved her very much. She calved the next day, and while still suffering from the sprain gave the largest authenticated quantity of milk ever given on this coast (104 gallons per day), showing conclusively the great relief received from your remedy. I consider it a necessity in my stables, and when away from home feel perfectly safe, as inexperienced men can do no harm with it, as they can with the more powerful blisters. Respectfully yours,  
FRANK H. BURKE,  
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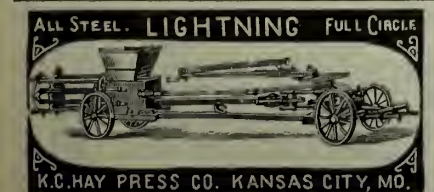
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Silver Medal Awarded by the State Fair of 1890.

This preparation is a Sure Destroyer of the SCALE, WOOLY APHIS and INSECT PESTS of any and all descriptions. It may be as freely used in the conservatory, garden or greenhouse as in the orchard or vineyard. It is non-poisonous and harmless to vegetation when diluted and used according to directions. It mixes instantly with cold water in any proportions. It is SAFE, SURE and CHEAP. No Fruit-grower or Florist should be without it. Send for Circulars and Price List.  
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BETTER THAN CLEANING A MUDDY TAIL. ALL Polished Metal. Samples, 25 cents. DES MOINES NOVELTY CO., 127 Fourth St., Des Moines, Iowa. Mention this paper.



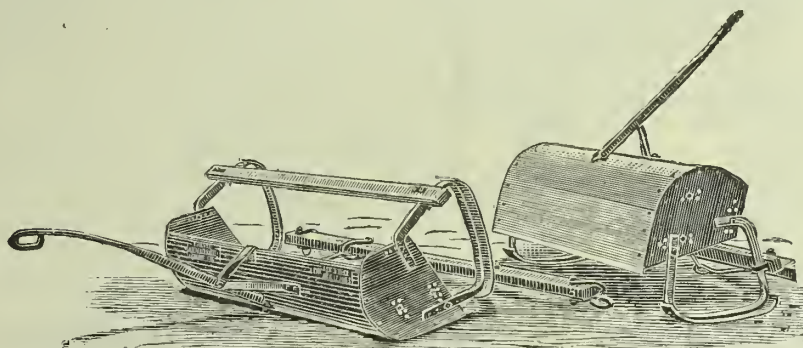
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Best and Strongest Explosives in the World.  
As other makers IMITATE our Giant Powder, so do they Judson, by Manufacturing a second-grade, inferior to Judson,  
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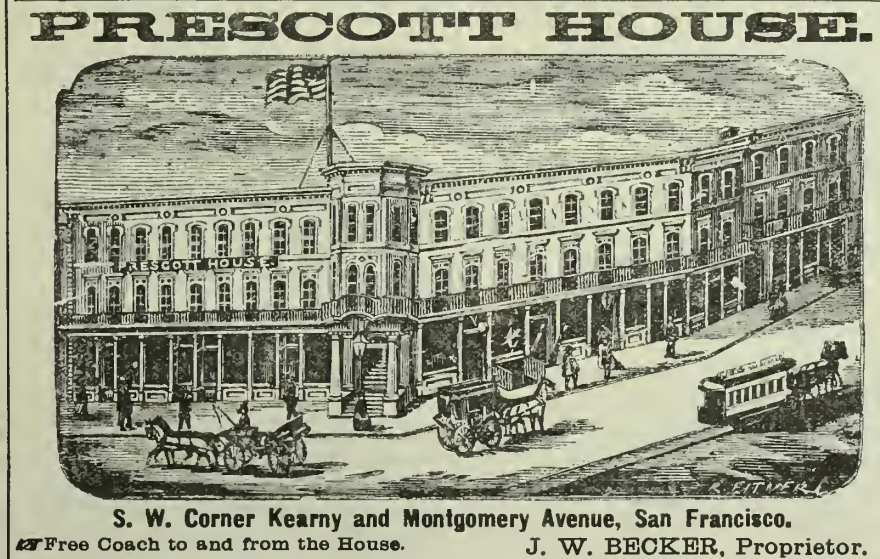
CONSIGNMENTS OF GRAIN, WOOL, AND ALL KINDS OF PRODUCE SOLICITED.  
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MR. JAS. PORTEOUS, Fresno, Cal.—DEAR SIR: In answer to yours of 6th inst., will say that I have found your new style four-horse Scraper the best all-round Scraper I have yet tried. Respectfully yours,  
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Wormy Fruit and Leaf Blight of Apples, Pears, Cherries, Plum Curculia prevented by spraying with the EXCELSIOR SPRAY PUMP. GRAPE and POTATO ROT prevented by using EXCELSIOR KNAPSACK SPRAYER; also injurious insects which infest Currants, Gooseberries, Raspberries and Strawberries. PERFECT FRUIT ALWAYS SELLS AT GOOD PRICES.  
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General Commission Merchants,  
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Advances made on Consignments.  
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SUCCESSORS TO  
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GREEN and DRIED FRUITS.  
Poultry, Eggs, Game, Grain, Produce and Wool.

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All Kinds of Green and Dried Fruits.  
Consignments Solicited. 324 Davis St., S. F.

**LOUDEN HAY TOOLS**  
IT WILL PAY.  
Write for our Large Illustrated Catalogue showing fruits of 25 years in the hay field, how to build hay barns and sheds, and other valuable information. Also new Self-Compressing, Center-Trip Hay Sling, which takes half a load of any kind of hay or fodder at a time, leaving no litterings whatever, and lays it on the now or on the stack, just as it lay on the load. Write NOW before losing address.  
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**THE KRIEBEL ENGINE**  
And Plain Vertical Boiler.  
Mounted on a Combined Base.  
A very Cheap and Economical Engine.  
Made of the very best material.  
2 & 3 HORSEPOWER.  
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**ORANGE CULTURE**  
A practical treatise by T. A. GARRY giving the results of long experience in Southern California. 196 pages, cloth bound. Sent post-paid at reduced price of 75 cts. per copy by DEWEY & CO., Publishers, S. F.



## S. H. MARKET REPORT

## Market Review.

## DOMESTIC PRODUCE, ETC.

SAN FRANCISCO, Jan. 28, 1891.

General trade in farm products shows more life. In cereals, there is more movement, largely due to the near approach of tax assessment day. Continued dry weather has a favorable effect on prices, but it is too soon to cry drouth, for the air is moist and cool, both in favor of the growing plant. The money market is easy, with low ranges for interest looked for after the first Monday in March. Many capitalists, to avoid paying taxes, send money out of the State or else put it away until after tax assessment day. Foreign and Eastern market advices report slightly higher prices for wheat. The following is to-day's cable:

LIVERPOOL, Jan. 28.—Wheat—Easier. California spot lots, 75 6d to 75 11 1/2d; off coast, 39s; just shipped, 38s 3d; nearly due, 38s 6d; cargoes off coast, nothing offering; on passage firm; Mark Lane wheat, firm; French country markets, quiet; wheat in Paris, quiet; flour, steady.

## Foreign Grain Review.

LONDON, Jan. 26.—Cargoes on passage and for shipment, quiet. Cargoes off coast, quiet. California cargoes for prompt shipment, 38s 3d. Cargoes nearly due, 38s 6d. Cargoes off coast, 39s. English country markets, slow. French country markets, steady and firm. Wheat in Paris, quiet. Flour in Paris, steady. Weather in England, mild.

## Liverpool Wheat Market.

The following are the closing prices paid for wheat options per cwt. for the past week:

	Jan.	Feb.	Mar.	April.	May.	June.
Thursday.....	78 9/16	78 9/16	78 9/16	78 9/16	78 9/16	78 9/16
Friday.....	78 9/16	78 9/16	78 9/16	78 9/16	78 9/16	78 9/16
Saturday.....	78 9/16	78 9/16	78 9/16	78 9/16	78 9/16	78 9/16
Sunday.....	78 9/16	78 9/16	78 9/16	78 9/16	78 9/16	78 9/16
Tuesday.....	78 9/16	78 9/16	78 9/16	78 9/16	78 9/16	78 9/16

The following are the prices for California cargoes off coast, nearly due and prompt shipments for the past week:

	O. C.	P. S.	N. D.	Market.
Thursday.....	38 6d	38 3d	38 6d	Firm.
Friday.....	38 6d	38 3d	38 6d	Quiet.
Saturday.....	38 6d	38 3d	38 6d	Quiet.
Sunday.....	38 6d	38 3d	38 6d	Steady.
Tuesday.....	38 6d	38 3d	38 6d	Steady.

## Eastern Grain Markets.

The following shows the closing prices of wheat at New York for the past week, per bushel:

	Jan.	Feb.	Mar.	April.	May.	July.
Thursday.....	104 1/2	104 1/2	104 1/2	104 1/2	104 1/2	104 1/2
Friday.....	104 1/2	104 1/2	104 1/2	104 1/2	104 1/2	104 1/2
Saturday.....	104 1/2	104 1/2	104 1/2	104 1/2	104 1/2	104 1/2
Sunday.....	104 1/2	104 1/2	104 1/2	104 1/2	104 1/2	104 1/2
Tuesday.....	104 1/2	104 1/2	104 1/2	104 1/2	104 1/2	104 1/2

The closing prices for wheat have been as follows at Chicago for the past week, per bushel:

	Jan.	Feb.	Mar.	April.	May.	July.
Thursday.....	92 1/2	92 1/2	92 1/2	92 1/2	92 1/2	92 1/2
Friday.....	92 1/2	92 1/2	92 1/2	92 1/2	92 1/2	92 1/2
Saturday.....	92 1/2	92 1/2	92 1/2	92 1/2	92 1/2	92 1/2
Sunday.....	92 1/2	92 1/2	92 1/2	92 1/2	92 1/2	92 1/2
Tuesday.....	92 1/2	92 1/2	92 1/2	92 1/2	92 1/2	92 1/2

NEW YORK, Jan. 28.—Wheat—\$1.07 1/2 for February, \$1.07 1/2 for March, \$1.04 1/2 for May, \$1.02 1/2 for June, and 98 1/2c for July.

CHICAGO, Jan. 28.—Wheat—96 1/2c for May and 91 1/2c for July.

## Eastern Wool Markets.

NEW YORK, Jan. 23.—Bradstreet's says: A quieter feeling has prevailed in the wool markets during the week. Prices, although about the same as a month ago, are much firmer. Concessions which were made then are being refused now. Choice lots are expected to show an advance as soon as the London sales open. American dealers will be well represented at the sales, and it is believed that they will buy freely because of the light supply here and the upward tendency of the American market. The movement in all grades has been fair. The demand for Australian and pulled wools has weakened and the aggregate sales of these grades is much below that of the preceding week. A slight improvement has been noted in Ohio and Michigan fleeces. One-quarter and three-eighths blood wool are in good request, and the slight supply has strengthened values. Fine staple Territories continue in strong demand and comprise the major part of sales. Texas wools are quite active, and California wools are gaining in strength. Some grades of carpet wools are more active. High prices and recent decisions of the Treasury Department are the principal causes of the slow movement in these wools.

## Stock of Honey East.

The New York American Bee Journal of Jan. 22: puts the stock in Boston at only 300 crates and in New York at about 600 crates and adds: There is no fancy, desirable stock in our market. The demand has almost ceased, especially for this class of goods. Our market is well stocked with extracted honey, especially with California honey, of which there are about five to six carloads. The stock of basswood, white clover and buckwheat extracted honey is light, and the prices are firm.

## Dried Fruits.

NEW YORK, Jan. 22.—The Commercial Bulletin says: Since the beginning of the year a report has frequently been circulated that Chicago and other Western centers would sooner or later be drawing on New York for supplies of California dried fruits, peaches and apricots in particular. Judging from the reports as to the position of the supplies and their distribution in the West, more goods will be required there should the demand continue relatively as good in the near future as it has been for the past two or three weeks. Up to the present we do not find that the Windy City merchants have made purchases here, except from that or other Western points. It is not that anxious inquiries for goods have been related as a matter of some interest in this connection that Chicago brokers have samples of the goods held in the East, and buyers no sooner express a desire to purchase than the brokers report that they are overwhelmed with offers.

NEW YORK, Jan. 23.—The improvement noted recently in the demand for California dried fruits seems to have rather more headway. There is more

convincing evidence that the Western trade wants peaches and apricots, if not prunes, from this quarter, and the demand from Eastern interior points is also picking up somewhat. On a line of two carloads of peaches offers were made here which came within 1/2c of the holders' figures and an advance of 1/4c has been made on actual sales. In Philadelphia this week apricots are decidedly strong, with a tendency toward 20c for a good average quality. It is doubted that really desirable prunes can be picked up at prices as low as some parcels were offered a short time ago.

NEW YORK, Jan. 24.—The Commercial Bulletin says: The latest reports on California dried peaches may be summed up thus: Chicago is buying in Philadelphia, Philadelphia is buying in Chicago, and both are buyers in New York. The reports may be accurate, but they certainly are peculiar.

## Hops.

NEW YORK, Jan. 22.—Cables report a fair business in hops in London and steady prices, and that 189s. is offered for choice Pacifics. The German market is firm and continues moderate.

LONDON, Jan. 27.—The reports are that English brewers are shy and are using hop substitutes as much as possible. The beer consumption in England thus far this winter is below the average, owing to the cold weather. Stocks of hops, however, are light, and the statistical position is favorable, the importations having been light.

## Miscellaneous.

NEW YORK, Jan. 22.—Choice California Lima beans are selling on the spot at \$3@3.05 per bushel in fair-sized lots.

## Local Markets.

	Buyer Season.	Seller 1891.	Buyer 1891.	Seller 1891.
Thursday.....	152 1/2	152 1/2	152 1/2	152 1/2
Friday.....	152 1/2	152 1/2	152 1/2	152 1/2
Saturday.....	152 1/2	152 1/2	152 1/2	152 1/2
Sunday.....	152 1/2	152 1/2	152 1/2	152 1/2
Tuesday.....	152 1/2	152 1/2	152 1/2	152 1/2

After August.

	Buyer Season.	Seller 1891.	Buyer 1891.	Seller 1891.
Thursday.....	148 1/2	148 1/2	148 1/2	148 1/2
Friday.....	148 1/2	148 1/2	148 1/2	148 1/2
Saturday.....	148 1/2	148 1/2	148 1/2	148 1/2
Sunday.....	148 1/2	148 1/2	148 1/2	148 1/2
Tuesday.....	148 1/2	148 1/2	148 1/2	148 1/2

BAGS—The market is dull at 6 1/2c for May-June delivery.

BARLEY—Receipts are free, but the bulk coming to hand goes into consumption, which tends to keep prices strong. The grade is good to gilt-edged. In futures, dealing on Call has been quite active. The following are to-day's reported sales on Call:

Morning Session: Seller 1891—200 tons, \$1.11 1/2; 100, \$1.11 1/2; 100, \$1.11 1/2; 100, \$1.12. Buyer 1891, after August 1st—200 tons, \$1.17 1/2 per cwt. Afternoon Session: Buyer 1891—100 tons, \$1.51 1/2; 100, \$1.51 per cwt.

BUTTER—The market, which showed considerable strength, is slightly easier, although the cool weather is calculated to check any downward move at present.

CHEESE—Choice mild is hard to get, and consequently high prices rule.

EGGS—The market has advanced under moderate receipts and a good demand. Selected are wanted for which full prices are readily obtained.

FLOUR—The market is quiet but firm.

WHEAT—The sample market is firm, but buyers fight against paying an advance. In futures, trading continues light. The following are to-day's reported sales made on Call:

Morning Session: Buyer 1891—300 tons, \$1.49 1/2; Buyer season—100 tons, \$1.43 1/2; 500, \$1.43 1/2 per cwt. Afternoon Session: Buyer 1891—100 tons, \$1.49 1/2; 200, \$1.49. Buyer season—1200 tons, \$1.43 1/2; 200, \$1.43 per cwt.

## Market Information.

## Produce Receipts.

Receipts of produce at this port for the week ending Jan. 27th, were as follows:

Flour, qr. sks.....	119,650	Middlings, sks....	3,809
Wheat, cts.....	363,795	Alfalfa, ".....	75
Barley, ".....	45,795	Chicory, hbls....	7
Rye ".....	734	Broomcorn bbls..	6
Oats ".....	20,063	Hops, bbls.....	111
Corn ".....	794	Wool, ".....	81
*Butter ".....	546	Hay, tons.....	2,351
do bxs.....	191	Straw ".....	85
do bbls.....	191	Wine, gals.....	255,130
do kegs.....	191	Brandy, ".....	19,990
do tubs.....	191	Raisins, bxs.....	1,516
do bxs.....	124	Honey, cs.....	60
*Cheese, cts.....	331	Walnuts, sks....	36
do bxs.....	41	Flaxseed, ".....	9,229
Eggs, doz.....	30,200	Mustard, ".....	6
do "Eastern.....	1,062	Almonds, ".....	6
Beans, cts.....	1,062	Peanuts, ".....	8
Potatoes, sks.....	28,356	Popcorn, ".....	50
Onions, ".....	1,469	Beet sugar, bbls..	50
".....	15,032	do do sks.....	602
Buckwheat ".....			
*Overland " cts.		*Overland 19 cts.	

## Cereals.

H. Kains Jackson, in London Farmer, Jan. 5th, says: Of late the markets have chiefly had to deal with full barley offers from farmers—double in quantity to that of wheat. This relative proportion usually alters with the New Year, dwindling down through spring until in summer the barley supply dries up and prices cannot be quoted. Considering that the wheat crop of 1890 is reckoned almost the same in quantity as that of 1889, while both harvests were well saved, it seems likely for the next three months farmers will send to markets a similar quantity to last season's current supply, some 60,000 to 80,000 qrs to 196 market towns. It is well to remember what happened. They sold about 3,000,000 qrs of their wheat at 29s to 30s per qr, leaving themselves in the position of having only 1,500,000 qrs for summer sale at 32s to 36s per qr. Much of the present system of crowding forward supplies at one time, and having but small reserves for better markets, is owing to the steam thrashing machine being substi-

tuted for the flail as the latter went on knocking out the grain all through the year, whereas the machine comes upon the homestead and riddles and cleans half the harvest at once, which is sold out at once. For barley the new system is well suited, since the maltsters and brewers like to make themselves safe by buying in autumn and winter all the farmer can sell. Millers are different, and refuse to buy, as a rule, except supplies currently required.

Advices from Oregon and Washington report the weather to be of the most favorable character for growing crops. In this State, although there is a continued absence of rains, yet the crops are not suffering. The fair, cool, moist weather helps to retain the moisture in the land. While crops are not suffering, still well-distributed rains would prove quite acceptable.

Oregon and Washington continue to send to us free supplies of barley, yet the market not only appears to take all coming to hand but cries for more. Gilt-edged grades for milling are not in oversupply, and when maltsters are forced into the market they find themselves compelled to pay full up. Choice feed is not in large supply. The demand continues free.

Oats continue to hold strong, notwithstanding heavy receipts from Oregon. The supply up north is said to be running light. The demand with us is fairly active.

Corn is firmly held. Receipts are light. There will be an increased acreage this year.

Rye is barely steady, while buckwheat is dull and easy.

The local wheat market has held fairly strong considering that receipts from Oregon and Washington are exceptionally large and that spot tonnage is in light supply. The prices ruling for Washington and Eastern Oregon range from \$1.32 1/2@1.35 for good to choice, with some gilt-edged going higher. Valley or Western Oregon wheat ranges from \$1.35@1.40. These are wharf quotations. When obtainable alongside of vessel the price is slightly higher. The tonnage situation as worked by the ring is against wheat sellers, and the higher duties on imported goods are not calculated to cheapen ships for outward cargoes of wheat.

To illustrate how important it is to have cheap tonnage, we cite the following: Red Winter wheat is quotable for prompt shipment in the London market at 35s. per quarter of 500 lbs, and California No. 1 White shipping at 38s. 3d. per quarter of 500 lbs. A difference in favor of California wheat of 39d. per 500 lbs, or 7 1/2-5d. per cental, equivalent to about 15 1/2c per cental or nearly 9 3/4c per bushel. Yet with this difference in favor of California wheat in the English selling market, still the wheat does not command as much at the shipping seaport as does the Red Winter wheat. The New York market was quoted yesterday at \$1.05 per bushel or \$1.75 per cental for Red Winter; the San Francisco market was quoted the same day for California No. 1 White shipping at \$1.37 1/2 per cental or 82 1/2c per bushel. On the Atlantic, vessels are engaged in other traffic, chiefly carrying passengers, and take wheat more for ballast than for profit, and therefore the freight rates are low, making the difference in other carrying lines. On this coast vessels come here chiefly for grain loading, and in doing so they bring inward cargoes more for ballast than for profit, and therefore make the difference in higher charges for wheat charters.

## Feedstuff.

The market for ground feed has held firm under a good demand. The Hawaiian Islands continue to draw freely of rolled barley.

Hay shows remarkable strength for the time of the year. It is generally claimed that pasturage is poor in almost all sections, with a scarcity in many. Rains are wanted. The light natural or green feed causes more general feeding of hay. The supply of hay in the State is light. Considerable is coming forward from Nevada.

## Fruits.

Receipts of apples are very heavy, and under a slightly lessened inquiry the market shows an easier tone, except perhaps for real gilt-edged mountain fruit. Dealers say that apples received this season from Humboldt and Siskiyou are not of as good quality and size as came to hand a year ago, but from Tuolumne they are good. Retail dealers appear to be taking more kindly to apples in barrels, for as a rule the consumers prefer the fruit in these packages to that in boxes. While \$9 a barrel is obtainable for gilt-edged apples, both yellow Newtown and Spitzenberg, yet very few come up to the requirements. The cold weather is in favor of apples, for when cold, consumers prefer them to oranges.

The crop of oranges in this State is larger than heretofore estimated, and as Florida oranges, owing to relative cheapness, have the run of the Eastern markets, our product is forced on the coast markets at low prices. The weather has been and still is in favor of growers, for the fruit is ripening slowly. Had oranges ripened as rapidly as they did last season, forced shipments to all distributive points would have been in order, and with forced sales, much lower ranges in prices would have followed than is now witnessed. The early fruit sent to this market was not ripe and being more or less sour, consumers soon had enough, and it may take a little while yet to convince them that receipts now coming to hand are matured. The cold weather is also against a free consumption.

Raisins have a strong tone, notwithstanding buyers are bearish, or, at least, they talk that way. Dried fruits show a gradually improving tone, under an enlarging demand and limited stocks on this coast.

## Live-stock.

Bullocks have a slightly firmer tone for the more choice conditioned. Mutton sheep are barely steady at higher quotations. Calves are still weak. Hogs have an easier tone. Milch cows are offering fairly free at from \$20 to \$30, with higher prices asked for selected.

Large sized, well-formed work horses can be placed readily, as can medium sized, but small, scrubby animals are hard to sell. General utility and fair to fast driving horses are wanted, but buyers huddle over prices asked. Matched teams, good steppers, easy motion, and kindly disposition find ready buyers.

The market for dressed cattle is quoted as follows: To obtain the price on foot, take off from the price for stall-fed one-third to one-half, according to the nature of the feed and time fed; and for grass-fed take off the price from 40 to 60 per cent.

HOGS—On foot, light grain fed, 4 1/2@4 3/4c per lb;

dressed, 7@8 1/2c per lb.; heavy, 4@4 1/2c per lb.; dressed, 6 1/2@7 1/2c per lb. Stock hogs, 3 1/2@4c per lb. BEEF—Stall fed, 7@—c per lb.; grass fed, extra, 6 1/2@—c per lb.; first quality, 5 1/2@6c per lb.; second quality 4 1/2@5c per lb.; third quality, 3 1/2@4 1/2c per lb.; bulls and thin cows, 2@3c per lb. VEAL—Small, 6@7c per lb.; large, 5@6c. MUTTON—Wethers, 8@9c per lb.; ewes, 7 1/2@8 1/2c per lb.; spring lamb, 15c per lb.

## Vegetables.

Garden truck is still in light supply, but the gardens are reported to be looking exceedingly well and not suffering from the want of rain. Early vegetables will soon put in an appearance from points around the bay. Los Angeles is still supplying us with tomatoes and peas. Garlic is in oversupply.

Onions are in good supply. The market is barely steady. A very large increased quantity will be grown in this State and Oregon, as the weather has been favorable for planting.

Choice smooth potatoes fetch full prices, with, at times, an advance obtainable on outside quotations. Knotty and otherwise poor potatoes are hard to sell except at concessions. Receipts continue large. Yesterday there was a good demand for River Reds, and as the supply was light a decided advance took place; as high as \$1.25 per cental was paid on the wharf. Very choice smooth Burbanks from Humboldt were sold on the wharf at \$1.25 and from store at \$1.50.

## Miscellaneous.

The poultry market is overstocked, causing low prices to obtain. Heavy overland receipts are the disturbing element.

Wild game fluctuates in price.

Mustard seed is stiff, owing to light stock and continued dry weather. It looks as if the area devoted to its growth is decreasing.

White beans continue to strengthen; other kinds are stronger in sympathy. The stock of all kinds is light.

Hops in first hands are exhausted. The trading now reported is chiefly from second and third hands. There is a disposition to contract for next crop delivery, but the prices are kept quiet.

Wool is still slow; no improvement is looked for soon.

Exports by sea the past week aggregate as follows: Flour, bbls, 10, 645; Panama, 200; Central America, 4264; Guayaquil, 500; China, 16,607; Hong Kong, 11,250; Kahului, 218; Honolulu, 710; Nanaimo, 155; Japan, 1170. Wheat, cts, Liverpool, 73-81s; Dunkirk, 61, 47s; Havre, 109, 134; Cork, 50, 328. Barley, cts, Hilo, 42s; New York, 218s. Bran, sks, Hilo, 1720; Honolulu, 330; Kahului, 1395. Beans, lbs, Hilo, 14,850; New York, 22,345; Panama, 1196; Central America, 14,630; Victoria, 14,418; China, 14,345; Nanaimo, 1050; Honolulu, 696. Dried fruits, lbs, Hilo, 700; China, 647. Hay, bales, Hilo, 825. Brandy, gals, New York, 1597. Wine, gals, New York, 44,446; Central America, 7500; Japan, 578; Victoria, 1665. Hops, lbs, Calcutta, 8918. Corn, cts, Central America, 1264. Raisins, bxs, Calcutta, 100; barley, cts, 1403. Rolled barley, cts, Honolulu, 981; Kahului, 155. Sugar, lbs, Japan, 6750; Hong Kong, 500,000; Victoria, 17,580.

From the Commercial News of Jan. 28th the following summary of tonnage movement is compiled: On the way to 1891. 1890. San Francisco.....282,566 179,159 San Diego.....15,475 11,273 San Pedro.....6,519 1,831 Oregon.....34,832 20,782 Puget Sound.....19,599 19,405

Totals.....358,961 232,450

In port at San Francisco, disengaged.....15,242 24,424 " engaged for wheat.....44,965 73,570

San Diego..... San Pedro..... Columbia River.....11,811 Puget Sound.....

Totals.....72,018 101,729

To get the carrying capacity, add 65 per cent to the registered tons as given above.

From July 1, 1890, to Jan. 21, 1891, the following are the exports from this port: 1891. 1890. Wheat, cts.....6,832,665 7,454,381 Flour, bbls.....652,418 628,730 Barley.....192,550 836,183

## Domestic Produce.

Extra choice in good packages fetch an advance on top quotations, while very poor grades sell less than the lower quotations. WEDNESDAY, Jan. 28, 1891.

BEANS AND PEAS	Softshell.....	14 @ 15
Baro, cts.....	Paper shell.....	15 @ 16
Butter.....	Butter.....	19 @ 20
Butter.....	Pecan small.....	12 @ 14
Red.....	do large.....	15 @ 18
Pink.....	Peanuts.....	5 @ 6
Small White.....	do.....	12 @ 13
Lima.....	Hickory.....	7 @ 8
Flid Peas, Mokeye.....	do.....	12 @ 15
do green.....	do.....	7 @ 8
do Niles.....	do.....	15 @ 16
Split.....	do.....	20 @ 30
CHOICE CORN	Early Rose, sks.....	70 @ 80
Choice to Extra 70 @ 80	do.....	80 @ 90
Fair to Good.....52 50 @ 65 00	do.....	90 @ 10



Wild Oats.....12 50 @15 50	EGG FOOD.
Tame do.....12 00 @14 50	Manhattan, 1/2 lb. 12 @
Barley.....11 50 @14 50	PROVISIONS.
Barley and Oats 11 50 @14 50	Cal Bacon, heavy, 10 @
Alfalfa.....11 00 @13 00	Light.....13 @
Straw bale.....70 @ 80	Lard.....9 @
Extra, City Mills 4 10 @ 4 25	Cal Sm'd Beef 11 @
do Co try Mills 4 00 @ 4 25	Hams, Cal.....12 @
Superfine.....3 00 @ 3 50	do Eastern.....13 @
GRAIN, ETC.	SEEDS.
Barley, feed, ctl. 1 47 @ 1 53	Alfalfa.....7 1/2 @
do Choice 1 53 @	Oats.....3 @
do Brewing 1 55 @	Clover, Red.....9 @
do do Choice 1 57 @	White.....9 @
do do gilled 1 57 @	Cotton.....20 @
Chevalier case 1 57 @ 1 62	Flaxseed.....2 @
do com to good 1 40 @ 1 52	Hemp.....3 1/2 @
Buckwheat.....1 40 @ 1 65	Italian Rye Grass 10 @
Corn, White.....1 30 @ 1 35	Perennial.....7 @
Yellow, large.....1 32 @	Millet, German.....5 @
do, small.....1 30 @ 1 35	do Common.....5 @
Oats, milling 2 05 @ 2 10	Mustard, yellow 2 00 @ 2 35
Surprise.....2 05 @ 2 10	do Brown.....2 1/2 @
Feed, Choice.....2 00 @ 2 05	Rape.....1 1/2 @
do good.....1 95 @	Ky. Blue Grass.....25 @
do fair.....1 85 @	Sweet V. Grass.....75 @
do Gray.....1 80 @ 1 92	Orchard.....14 @
do Black.....1 70 @ 1 90	Hungarian.....7 1/2 @
do do for seed 2 25 @ 2 50	Mesquit.....27 @
Rye.....1 30 @ 1 35	Timothy.....5 1/2 @
Wheat, milling 1 43 @	TALLOW.
do Choice.....1 41 @	Crude, lb.....3 @
do fair to good 1 38 @	Refined.....6 @
Shipping, choice 1 38 @	WOOL - SPRING, 1890
do good.....1 35 @ 1 37	Humb't & Merino 19 @
do fair.....1 30 @ 1 32	Sac to valley.....15 @
Sonora.....1 32 @ 1 36	Free Mountain.....18 @
HIDES.	S. Joaquin valley 12 @
Dry light to h'vy 9 @	do mountain.....17 @
Salted.....5 @	Cal's & F's th'l.....17 @
HOPS.	Oregon Eastern.....13 @
Oregon, 1890.....30 @	do valley.....20 @
Cal 1890 Choice 37 @	do Coast, def.....16 @
do Fair to G'd 30 @	So'n Coast, free.....19 @
NUTS - JOBBING.	FALL - 1890.
Walnuts, Cal. lb. 8 @	North'n, choice 16 @
do Ch'ce.....10 @	do defective 14 @
do paper shell 11 @	Mountain Free 13 @
do Chili.....9 @	S. Joaquin, def.....9 @
Almonds, hd shl. 6 @	Southern do.....9 @

Fruits and Vegetables.	
Choice selected, in good packages, fetch an advance on top quotations, while very poor grades sell less than the lower quotations.	
WEDNESDAY, Jan. 28, 1891.	
Bananas, bunch 1 50 @ 2 50	Apples, com box 50 @
Cranberries.....10 00 @11 00	do good.....75 @ 1 00
Limes, Mex.....5 00 @	do choice.....1 25 @ 1 75
do California.....@	do Gilted.....2 00 @ 2 50
do * do.....50 @ 75	do M'tain, hbl. 5 00 @ 9 00
Lemons, box	VEGETABLES.
do Riverside.....2 50 @ 3 00	Okra, dry, lb.....10 @
do Los Angeles 1 00 @ 2 50	Parasols, ctl.....1 25 @
do Sicily, bx.....6 00 @ 6 50	Peppers, dry, lb 12 @
do Malaga.....7 00 @ 8 50	do green.....8 @
Oranges.	Turnips, ctl.....75 @
do *Winters.....50 @	Beets, sk.....@ 1 00
do *Vacaville.....50 @	Cabbage, 100 lbs 50 @
do Riverside 1 75 @ 2 50	Carrots, sk.....30 @
Seedling Oranges	Marrowfat, ton 15 00 @
do Riverside 1 75 @ 2 50	Hubbard.....20 00 @
do Los Angeles 1 50 @ 1 75	Garlic, lb.....@
Navel Oranges.	Asparagus, lb.....20 @
do Riverside 2 75 @ 4 00	Mushrooms.....15 @
do Los Angeles 2 50 @ 3 00	Common, lb.....15 @
do Duarte.....3 00 @ 4 00	Choice.....20 @
Pineapples, doz 4 00 @ 5 00	Celery, per doz. 50 @
* Small box. † Large box.	Cauliflower, doz 50 @

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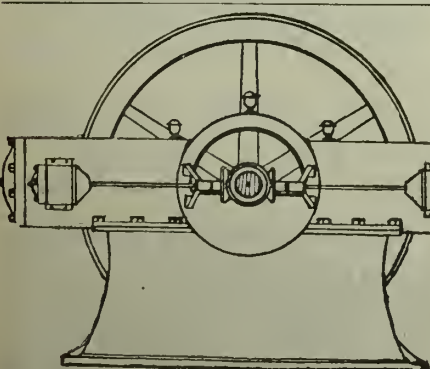
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**Price's Field Locomotive.**

The item below from the Haywards Journal relative to steam plowing in Alameda county refers to the Jacob Price Field Locomotive exhibited at the last State Fair. This engine has now been plowing steadily for almost four months without a breakage, and at present is demonstrating that the smaller farms of our valleys can be advantageously cultivated by steam as well as the large ones.

Truman, Hooker & Co. will soon have a supply of these machines.

**STEAM PLOWING AND SEEDING.**—Haywards Journal, Jan. 2: A steam plow is in operation on a number of the fields of Irvington, and is attracting a good deal of attention. It does its work very speedily and effectively; but some of our old-time farmers think it looks rather uncanny walking over the fields.



PACIFIC COAST WEATHER FOR THE WEEK.														
(Furnished for publication in this paper by officer in charge of branch Signal office, Division of the Pacific.)														
DATE.	Olympia.	Portland.	Eureka.	Red Bluff.	Sacramento.	S. Francisco.	Fresno.	Keeler.	Los Angeles.	San Diego.				
Jan. 21-27.	Rain.	Temp.	Wind.	Weather.	Rain.	Temp.	Wind.	Weather.	Rain.	Temp.	Wind.	Weather.	Rain.	Temp.
W.	.00	44	NE	Cy.	.00	52	NE	Cl.	.00	52	SW	Fy.	.00	54
T.	.00	44	0	Cl.	.00	48	SE	Cl.	.00	52	N	Cy.	.00	58
F.	.T	43	S	Cy.	.T	43	SE	Cy.	.00	52	N	P C	.00	64
S.	.06	48	S	Cy.	.01	54	SW	Cy.	.06	52	N	Fy.	.00	62
S.	.30	52	SW	Cy.	.T	54	E	Cy.	.00	52	N	Cy.	.00	68
M.	.02	48	W	P C	.T	48	W	Cy.	.08	50	N	Cl.	.00	60
T.	.14	42	S	Cy.	.12	42	S	Rn.	.T	48	N	Rn.	.00	56
	.52				.13				.14				.00	

EXPLANATION. Cl. for clear; Cy., cloudy; Fr., fair; Cm., calm; - indicates too small to measure. Temperature wind and weather at 5 P. M. (Pacific Standard time) with amount of rainfall in the preceding 24 hours. T indicates trace of rainfall. P C, partly cloudy. Rn., rain.

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ered as soon as cut. All parties who used this Grafting Compound last year the only successful compound they have ever used. Send for a sample can.

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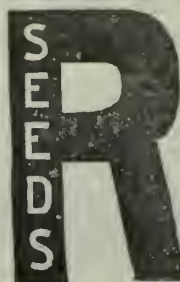
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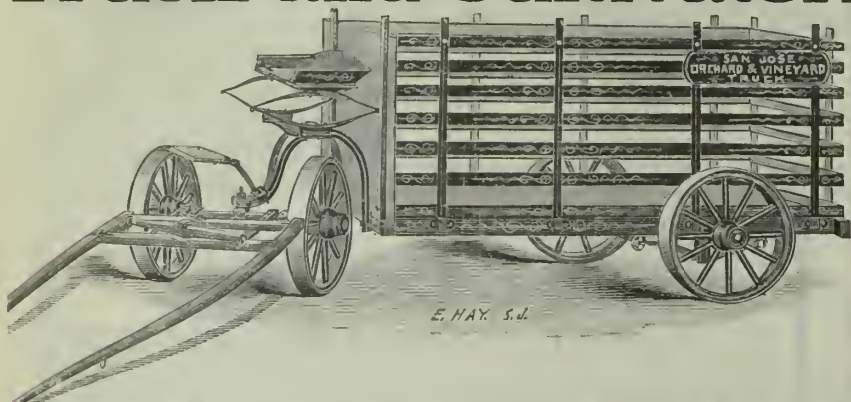
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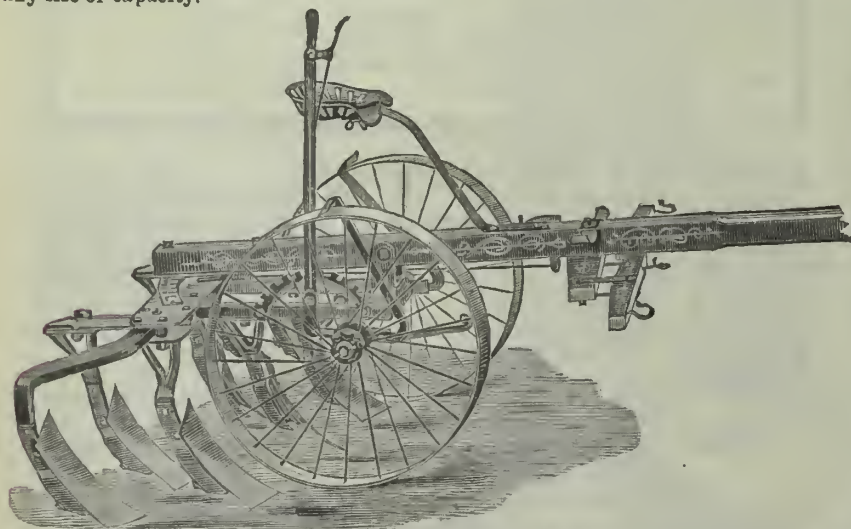
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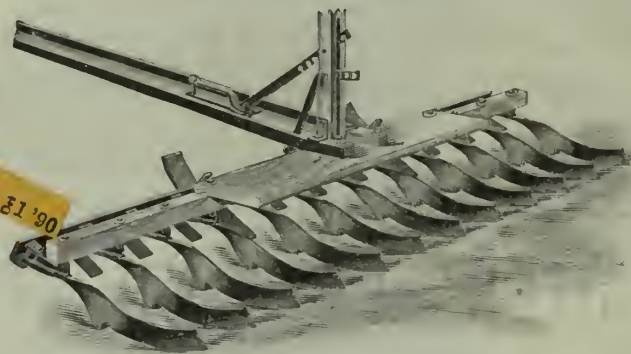


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WHEN WORN ON ONE END THE COULTERS CAN BE TURNED  
END FOR END, THUS SAVING EXPENSE.

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THEIR ACTION IS THAT OF A STEEL CRUSHER AND LEVELER,

— AND THEY ALSO —

CUT, LIFT AND TURN THE GROUND BY MEANS OF THEIR DOUBLE  
ROWS OF CAST STEEL COULTERS.

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Is the GENUINE Compound of the MEXICAN PHOSPHATE & SULPHUR  
COMPANY prepared from GUANO and rendered soluble by the application  
of acids.

This manure is an ENRICHER of the soil and not, like others, a  
STIMULANT only; it will do for the land what no other can in rendering it  
PRODUCTIVE without IMPOVERISHMENT.

Its analysis is reliable; its work is immediate and effective, and for  
results we point with confidence to the ORCHARDS of RIVERSIDE, where  
it has been liberally used for the past three years.

It can be prepared to suit any land, with or without potash, as occasion  
may require. It is rich in PHOSPHORIC ACID, and can be made as rich in  
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WE GUARANTEE ALL WE CLAIM FOR IT,

Viz.: TO BE THE MOST COMPLETE FERTILIZER ON THIS COAST.

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N. B.—By courtesy of the Southern Pacific Company we have low rates  
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## THE SUCCESS TRAP

Will hold Animals from a Gopher to a Coyote.  
Price for 30 days, postpaid, 25 cents. One dozen, \$2.00.

**SUCCESS TRAP CO.,**  
Stockton, Cal.





Vol. XLI.—No. 6.

SAN FRANCISCO, SATURDAY, FEBRUARY 7, 1891.

DEWEY & CO., Publishers,  
Office, 220 Market St.

#### A Fine Group of Polled Angus Cattle.

We have on this page a very handsome portraiture of very fine cattle, the property of a brother publisher with agricultural tastes and acquisitions, Mr. M. T. Brown of Davenport, Iowa. Mr. Brown's herd is at Gridley, Kansas, and he enjoys the delights of farming at long distances, but the stock shown in the engraving is evidence that he uses good materials. His Angus blood of the Pride of Aberdeen family shows that he has struck high in the breed he has chosen. The *Breeder's Gazette* says that the career of the foundation cow of this branch of the great Queen Mother tribe is without a parallel in the history of the breed, and that her descendants have found places of honor in nearly every prominent herd on either side of the water. As to the popularity of this strain of Aberdeen-Angus blood, sale-ring prices on both continents bear convincing testimony, and no breeder counts his herd complete unless it contains a representative of the famous Prides. The favorite tribe at Tillyfour (and their name is linked with some of the greatest glories of the breed) bid fair to maintain permanently their commanding position among the families of Aberdeen-Angus cattle.

To the left of the group, as it appears on this page, stands Pride of Aberdeen 45th, one of the purest bred of the tribe now living, descending from the famous Pride of Aberdeen 5th. The cow in the illustration is now a four-year-old, bred by R. C. Anld; got by Heir of the Shire (4458) out of Pride of Aberdeen 38th

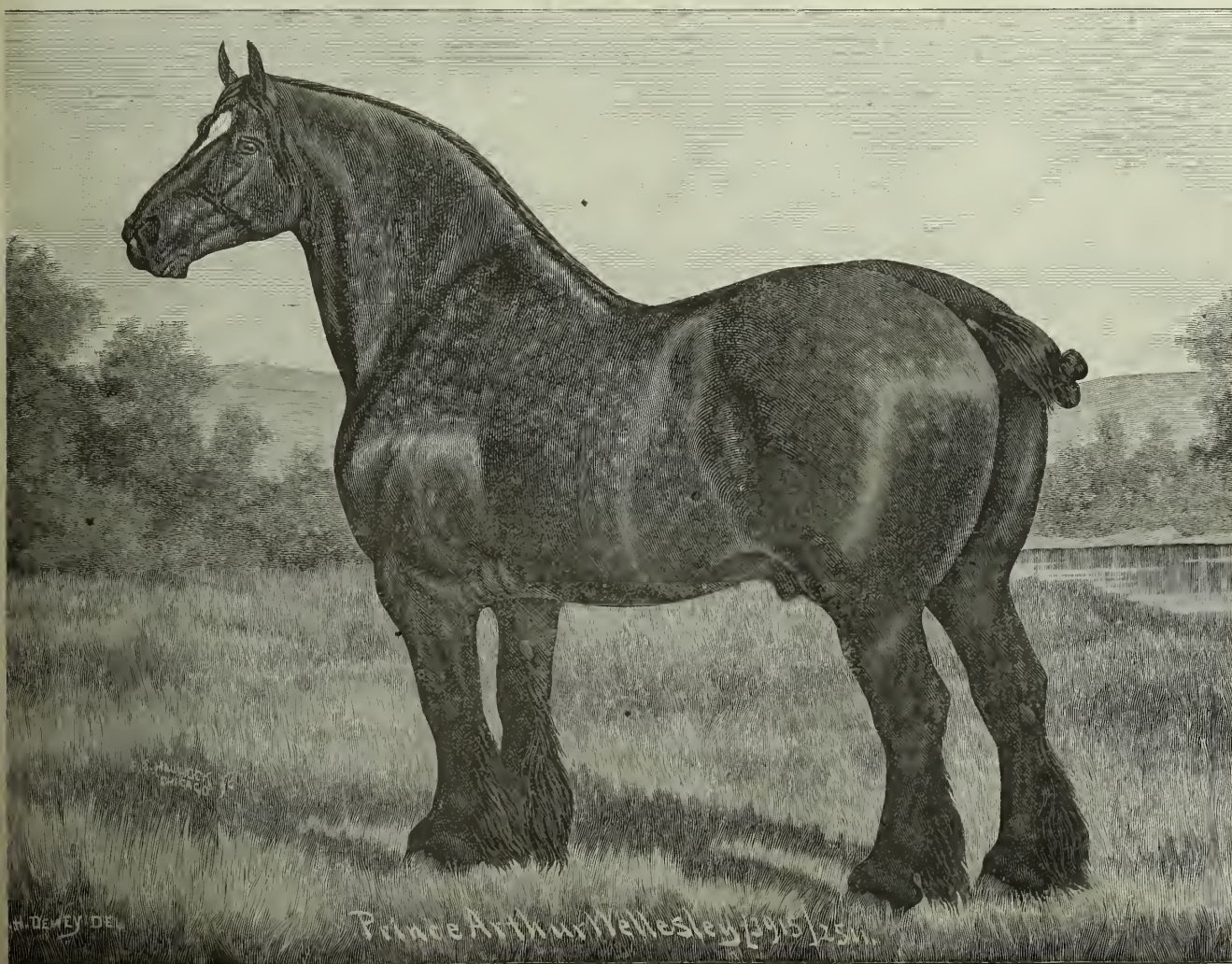


A GROUP OF THE PURE ABERDEEN FAMILY OF POLLED ANGUS CATTLE.

5282 by Wedgwood (2409). She is the dam of the two-year-old heifer in the center of the group—Pride of Brannbrest 9466, which has for sire Stratbogle 4567. The calf is Pride 2d of Brannbrest 10926. Upon the right is Pride 2d of Big Island 2905, for which Mr. Brown paid \$645 at the dispersion of the Big Island herd of Mossom Boyd & Co. She is a daughter of the famous Erlea sire Ermine Bearer (2082) and her dam is Pride of Findborn 3d (4758) by the Pride bull Black Watch (1242.) She was many times shown when in the Big Island herd and never failed of a first prize. Mr. Brown is to be congratulated on his possession of such a well-bred group of the famous Pride of Aberdeens.

#### A Royal Clydesdale.

We have not recently shown a Clydesdale, but the interests of this draft breed are progressing, and we are pleased again to show a good representative animal. Prince Arthur of Wellesley is an imported stallion, and was foaled in May, 1882, on the farm of D. McKay of Hurlisdale, Scotland. The horse has been described as one of the handsomest horses ever imported to America, of fine quality and style, good disposition and perfect in shape. He won second prize at Annan, Scotland, in 1883. His dam, Jean 610, only twice shown, won first prize both times at Annan, Scotland, and her sire, Young Pop 593, won first prize at the Royal Northern Agricultural Society show, at Aberdeen, 1870; second prize, 1870, and second at the Highland Society show, 1871. Prince Arthur was imported by the Brookside Farm Co. of Fort Wayne, Indiana, an establishment owned by Scotchmen, and operated in connection with a breeding farm owned by the same parties in the old country. Prince Arthur has played an important part in their operations.



A REPRESENTATIVE IMPORTED CLYDESDALE STALLION.



## HORTICULTURE.

## Planting and Pruning Deciduous Fruit Trees.

At the January meeting of the Redlands (San Bernardino county) Horticultural Society, Prof. C. R. Paine, an experienced fruit-grower, read an essay on pruning deciduous fruit trees which is so full of practical suggestions that we publish it entire as follows:

My aim will be to outline the methods of planting and training peach, apricot and prune trees, as ascertained from my own work and the observations and recorded experience of growers generally in the interior valleys of California. Another object is to open a discussion, as you request, which shall result in presenting to the numerous new growers about to begin in this vicinity the planting of orchards of these valuable fruits, plain and definite ways of beginning and carrying on this work, trite enough, doubtless, to the old and observant grower, but of sufficient value to the class named to warrant attention.

I realize that it is of little use to advise the planter to let the subsoil plow follow in the furrow of the surface plow, because it will be rarely done except by those of ample means who know that profit will come from deep and thorough working; every one should plow at least eight inches deep, without balks, and thoroughly fine the soil, usually after each half-day's plowing, that the lumps may not become hardened. Thorough cultivation at any period of the work is not alone for killing weeds and providing a mulch to retain moisture in this dry climate, but unknown and unnamed good results from frequent aeration of the soil, which is found to be worth more than it costs.

It is the experience of every irrigator that perfect grading saves subsequent labor and annoyance, and the novice will do well to heed dear-bought experience in this and other points that pertain to his enterprise.

In laying off a ten-acre block for planting trees, leave a border all around of at least 12 feet for turning teams and cultivation of outside rows; stinginess in this respect is always regretted.

Perfect accuracy of alignment of rows in every direction is so satisfactory, and lessens so much the hard hoeing after the horsework is done, that you must secure it, even if you have to employ an expert. Methods of laying off an orchard have been frequently published and can be readily understood and applied, and I need not, therefore, be explicit.

On upland soils 20 feet apart is a good distance for peaches, wider on lowland, while 25 feet is better for apricots and prunes, which, when fruiting, have a broader spread. However, if I were planting a block of two kinds, 22 feet would answer, if the trees were grown stocky; and the stubby form is the fruitful form.

When the distance between trees is not less than 20 feet, I would always employ the hexagonal or triangular method of arrangement. Cultivation and driving about are not hindered, as I know from my own orchard; every tree is equi-distant from every other, and, better than all in a business point of view, 15 per cent more trees can be planted to the same area. To illustrate: In one ten-acre tract I have, with streets cut off on two sides, as is always done here, and a border left unplanted, as I have described, there are planted 31 rows of 27 trees each, 22 feet apart on the hexagonal plan, in number 537 trees. Had these been planted in squares 22 feet apart, there would have been about 729 trees; the difference is 108 trees in favor of the hexagonal system. Suppose you get 100 pounds of fruit per annum from each tree, these extra 108 trees on the ten-acre tract—so called—will yield five tons of fruit, a difference that will well-nigh pay the cost of cultivation.

Provide a well-made and well-laid flume, with metallic gates; a V flume is best on sloping ground, because in it the outflow of water to each furrow can be regulated most readily.

The use of a planting-board and the process of staking to make ready for digging the tree-holes are doubtless familiar, or can be so. All the holes should be dug before beginning to plant, unless two sets of workmen are employed. If the sides of the holes should become dry before the tree is planted, a cement has formed which should be broken before the hole is filled. Openings two feet across and two feet deep with the bottom loosened shovel deep make a good home for the new tree; in sandy soils, as small a hole as will receive the roots is good enough, and a larger is no better.

In lieu of the top soil which may have been placed on one side in digging, to be replaced about the roots, it may answer to break down the surface earth round about the holes to fill the bottom and supply the first nutriment to the roots. All soil filled back should be free from lumps and put in gradually, one man holding the tree and spreading the roots and two shoveling; the one who holds the tree should cut out the broken roots and trim the ends of all the larger roots unless they have formed a callus. Of course care should be taken, especially late in the season, that the roots are not long exposed during the work. The tree should be planted only as deep as it stood in the nursery, and water should follow in a furrow to settle the earth closely around

the roots and give the needed moisture. If planting is done without water, greater care must be taken to pack the earth in all the spaces between the roots, particularly beneath the center of the tree; soil shoveled into the hole to form a mound on the bottom before placing the tree will serve the purpose. When the work is complete, only dry, loose earth should surround the tree on the surface.

All these and other details of planting needful to insure success may be rapidly done. No necessary care or attention to minutiae in handling or protecting the tree should be omitted. Attention to details is a large element of success in the greatest enterprises. The death of the tree or slowness of development will attest the faults of your work. In buying your stock accept no tree with knotty roots; plenty of good roots is of prime importance.

Yearling buds are better for the inexperienced than dormant, which in the hands of the old grower do well. The method of treating these little trees the first season lays the foundation for their after shape; the first two years is the formative period, and the mistakes of early treatment can never be remedied without serious loss.

When I first planted a little peach orchard of a few acres, I shortened the side branches and let the tree grow with central trunk, just as Eastern growers do, and as others still do here, and as they may do to advantage in the coast counties. In time the lower branches hung down decidedly in the way of horse work, as they became burdened with fruit and had to be cut off; the long exposed stem became seriously affected with sunburn on the southwest side. They stand "monuments of my ignorance." After grafting some undesirable varieties by sawing to a stump about three feet high, I was strongly impressed with the kind of top formed by the four or five branches from the scions inserted. They formed an acute angle with the perpendicular of the tree, making such trees the easiest to work near with a horse, and the tree most symmetrical.

When I planted again, I cut at once the tops of all the young trees knee-high from the ground, growing them without a central stem, forming easily a far better and more useful and healthy tree. I had really made an improvement on my old method, and shaped a tree fitted to stand the burning sun without harm, and allow the horse to approach without damage in making water furrows, and in after cultivation, while I was at the time unaware that extensive growers were using a similar method.

About this time, Mr. Wickson, while preparing his work on "California Fruits," wrote to me, as to others all over the State, requesting me to detail my practice in training deciduous fruit trees, and he has embodied my reply in his volume on page 160. As my practice agrees, in the main, with that recorded in his work of those orchardists who make the raising of this fruit a business, I feel the surer that it is well founded. Wickson's "California Fruits" is indeed, as the title-page declares, "A manual of methods which have yielded the greatest success," and "An index to the horticultural experience of the State," and fruit-growers will be the gainers who consult its pages in any department of their calling.

I quote, with some modifications, the method of training I there described: I train the stem to a single cane in the nursery, and just after planting I cut them all off at a uniform height—I then said two feet, but now I think 12 inches better. When the young growth, which will appear chiefly from latent buds on the remaining lower part of the stem, is a few inches long, I select from three to five shoots—preferably three in the peach—near the top, leaving a space of several inches between them, and pinch back all the others below, forming a tuft or rosette of leaves, whose presence will aid in the development of the young tree and serve to shade the trunk. There is nothing more important in the treatment of the tree in this climate than the last-named point of shade to the trunk. I would rather let the whole stem be enveloped with its unchecked growth than allow it to be scalded by the direct and reflected glare of the heat, and its bark tunneled by the busy borer, for this is sure death to the prospects of future profit from deciduous fruitage. Artificial protection of paper, cloth or thin boards must be used where shade enough is not given.

I repeat this work several times during the season of growth, and it is a very speedy operation. The following spring I cut back these three shoots to stubs, and not all of the same length, but varying from four to eight inches, for the double purpose of making these limbs stocky to bear their future burdens of fruit and of controlling the shape of the tree. Shortly a quantity of young growth will cluster about each of these short stubs, which can be thinned out by thumb prunning to two shoots to each of the three branches, tending obliquely upward from inside buds mostly; these will make lusty growth, which should be cut back to about 12 inches. The next season the branches should be shortened to about 18 inches, and every succeeding winter the wood grown the previous season should be pruned back at least one-half, as well as such branches be removed as impair the symmetry of the tree and threaten to overburden it with fruit, and likewise those that may start to grow in a somewhat horizontal direction outside of the three main branches and their prongs.

In the third year the tree has attained the shape it is ever after to keep—a short trunk less than one foot high, having no central stem

beyond, and from along its summit branches divergent at an angle of about 30 degrees, strong to support their destined weight, not declined so as to interfere with your work of cultivation and not needing to be removed as would be the case when age and length and many annual loads would bear downward branches supported on one long central trunk.

The fruit-producing spurs have ever a tendency to grow up and beyond reach, and for this reason the heavy cutting back of the first two years was done to bring the fruit wood nearer the base of the tree and the aim should be to keep it there, not pruning the prongs of the tree clean, but thinning out so that the branchlets may not die, and shortening the remainder that fruit buds may form. These fruit spurs along the larger branches of the tree should be left on prune and apricot trees especially. The main trunk of the prune and apricot could well be grown four inches longer—that is, 16 inches—to afford room for the attachment of the main forks, for in the prune there should be a greater number of prongs and in the apricot the limbs should grow out so independent of each other that there may be little danger of splitting down as the brittle character of its wood tends to make it.

This system of training is so simple and so easily followed from year to year that an ordinary workman may follow it and uniform effects be produced. The trees escape sunburn and the resulting attacks of borers, the fruit is more accessible, shorter ladders are used, fewer props are needed, teams can work more freely among the trees, and the renewal of the whole top by heavy cutting back of the principal limbs is postponed or rendered needless. After methods of treatment of the full-grown tree are beyond the province of this paper.

On motion of Mr. Love, the plan outlined in Prof. Paine's essay was indorsed by the society.

## ENTOMOLOGICAL.

## Work with the Codlin Moth, Woolly Aphis and Peach Borer, in Oregon.

[Paper by F. L. Washburn read before the Oregon State Horticultural Society at their annual meeting in Portland, Jan. 13 and 14, 1891.]

A matter which should be of importance to all orchardists is the success or non-success following treatment of fruit trees for insect pests, and I beg leave to hereby submit to your society a brief outline of the results of work at the Experiment Station during the past season, in this direction. This brief summary, treating of work with the codlin moth, the woolly aphis and peach borer, will be supplemented later by a complete report.

In the first place, to silence skeptics and to prove the efficacy of spraying for the codlin moth, two experiments in this line were entered upon, directed against the moth as well as against the leaf-eating caterpillars.

Experiment No. 1.—About 36 trees (apple and pear) in the orchard north of the college building were sprayed with a solution of water and Paris green. One lb. of the poison (good quality) to 200 gals. of water for first spraying and one lb. to 300 gals. for all subsequent sprayings. About six lbs. of soap (whale oil or soft soap) were added to every 50 gals. of the liquid with good results, causing an even spreading of the solution over fruit and leaf, and apparently rendering the poison more tenacious.

In every case one tree was left unsprayed of a similar kind as sprayed tree to serve as check on the latter. Six sprayings were given the early varieties. Summer Sweets, for instance, viz: on May 13th and 21st, June 10th, 21st and 28th, July 11th. An interval of seven days elapsed between the first and second sprayings and about 19 days was intended to be the interval between subsequent sprayings. Later apples, like Rambos and Baldwins, received eight and nine sprayings respectively. The last spraying of Baldwins took place on Aug. 19th. The final result shows that, had there been a later spraying of Baldwins, say Sept. 5th, or thereabout, they would have shown a cleaner record. When the first spraying was given, May 13th, the bloom had all fallen and the apples were "standing," and approximately the size of peas, some, of course, being a little larger than others. After the fifth spraying, the wormy apples were all carefully picked from sprayed and unsprayed trees and gathered from beneath the trees, and the number from each tree accurately counted. The tables show a clean record at this date (July 7th) for sprayed trees, hardly a wormy apple or pear being found upon them, while from unsprayed trees very many wormy specimens were taken, ranging in number all the way from 1 to 60, the higher numbers being most frequent. This favorable comparison was fairly well maintained during the season, the wormy apples and pears being recorded at regular intervals (5 days). The total number of wormy and sound apples from each tree was summarized. A glance at this summary convinces one of the advantage of spraying with Paris green. A very few of the results are given here:

No.	Tree	Sound apples.	Wormy.	Per cent wormy.
1	Rambo sprayed.....	3,492	124	25
"	" unsprayed.....	248	195	45
24	Summer Sweet sprayed.....	819	58	7
61	" unsprayed.....	492	189	25
18	Winesap sprayed.....	2,917	274	10
"	" unsprayed.....	340	513	30
17	Baldwin sprayed.....	2,076	1025	33
"	" unsprayed.....	97	199	66

A large Summer Doyenne pear, loaded with

fruit, and receiving five sprayings (the last June 25th), had hardly a wormy specimen upon its branches. A Winter Nelis receiving eight sprayings yielded 1014 good pears, and only 12 wormy pears. Experiment No. 2.

## Fungicide and Insecticide.

A combination to kill scab and at same time to prevent the ravages of the moth, was suggested by Dr. Sharpless of Eugene, but is in use as a combination in the East. The fungicide used was sulphide of soda and whale-oil soap. Recipe:

- a { 10 lbs. whale-oil soap,  
20 gals. water.
- b { 1 lb. Am. concentrated lye,  
2 lbs. sulphur,  
1 gal. water.

When *a* is heated enough to become thoroughly liquid and *b* has been boiled until it is thoroughly mixed and dark-brown, add *b* to *a*. Heat for one-half hour. Add 30 gals. of water and use warm.

Cost of mixture { Whale-oil soap, 30 cts.,  
1 lb. American Con. lye, 15 cts.,  
2 lbs. sulphur, 10 cts.

The cost is 55 cts. for 50 gals., which will afford one spraying for 35 pretty good-sized trees. Paris green was added in the same proportion as in Experiment 1, i. e., 1 lb. to 200 gals. of the mixture for first spraying, and 1 lb. to 300 gals. for subsequent sprayings. When used at a temperature of 125° F., better results were obtained than when used warmer.

A Red Astrachan, a Ballflower, a Spitzenberg and two Baldwins were sprayed five times with this mixture. This number of sprayings was sufficient, for this mixture is more tenacious than the simple solution, and has a strong, obnoxious and enduring odor. No scab was found on any of these trees, though the preceding year both Ballflowers and Spitzenbergs were badly affected.

The apples were all wonderfully free from worms, showing a far better record in comparison than in Experiment No. 1. In Experiment No. 2 the cost of material and labor given to one tree for season's spraying was 45 cents, and the apples from same tree would have brought in home market \$3.60 or \$3.15 net profit on one tree. It should be borne in mind, however, that in the above experiment the cost did not enter into computation. Where spraying is done on a large scale, the cost is greatly reduced. A Nixon machine No. 2 and the Nixon nozzle were used, the latter doing fairly good work, though I regard two Cyclone nozzles and ten feet of bamboo extension, costing (the three pieces) \$5, as better for this work.

The Marsh test for arsenic as applied to some of the sprayed apples by the station chemist, from time to time, gave interesting results as bearing upon the permanency of the poison.

## Summary.

The results of the above work point to the feasibility of spraying as soon as blossoms fall, when fruit is standing, with Paris green, as above outlined, allowing seven days to intervene between first and second spraying, and about 18 days between subsequent sprayings unless rain necessitates more frequent application. Seven sprayings (not counting extra sprayings necessitated by rainfall, should that accident occur) should be enough for all but the very latest varieties, Baldwins, for instance, and they should receive eight. If carefully done, this will save from 70 to 80 per cent of your fruit.

If the sulphide of soda, whale-oil soap and Paris green mixture is used, five sprayings on even late apples are all that is necessary, and hence preference would naturally be given the latter.

Canvas bands about the trunk were examined every five days and larvæ concealed beneath killed were found to be valuable adjuncts in fighting this pest. In this, as in everything else undertaken by an orchardist, "eternal vigilance (and diligence) is the price of success."

## The Woolly Aphis.

This pest, to be dreaded almost, if not quite, as much as the codlin moth, demands constant attention from the fruit-grower. The branch form has been worked upon to some extent during the past season by the Entomologist, but imperative duties in classroom and lack of assistance prevented continuation of work. Briefly, tobacco water, lye, whale-oil soap in solution, carbolic acid, whale-oil soap made by adding one half pint of carbolic acid to one-half pailful of soap, thinned with strong solution of washing soda, and resin wash, were all used as a spray. The last three were fairly effective, but the crusade must be unremitting and the orchardist nursing in his efforts.

One thing is imperative in this work, viz.: the liquid should be sprayed against the insects with great force in order to remove the woolly secretion and reach their bodies, and spraying should be very frequent (or awhile at least) say every few days in a badly infested orchard. One encouraging fact in connection with this insect has come to our attention in the practical work of the season just passed. The trees sprayed five times with the whale-oil soap and sulphide of soda mixture and Paris green in Experiment 2, though infested the year before when not treated and showing some of the pests this year before spraying, were nearly or quite exempt after two or three sprayings, the woolly pest not appearing on these trees until two weeks or later after last spraying. While this may not be conclusive, I regard it as good evi-



dence in favor of mixture used in Experiment 2 above mentioned.

#### The Peach Borer.

In Southern Oregon, Mr. Carson reports no larvae of *Sanina Pacifica* are found, but he says that the larvae of the flat-headed borer (*Laperda candida*) is an enemy to the peach. Here in the valley I find both at work on the peach trees, but the moth larva is more abundant than the larva of the beetle. On the College grounds about 20 three-year-old trees were treated with carbolated whale-oil soap, thinned with solution of washing soda (carbonate of soda, cost about 2½ cents per tree, two, three or four years old, for each application). Five trees treated with resin wash (full strength, as given in report from California). Seven trees wrapped with newspaper, several thicknesses wrapped around trunk from crotch to two or three inches below collar, and earth heaped about bottom of paper. This was all done between July 24th and 29th. The trees treated with the two first mixtures had their trunks from crotch to collar, and a little below, liberally slashed. Every tree was carefully examined before being treated and found exempt from borer.

Dec. 10th and 11th the trees were examined. Those wrapped with newspaper were entirely exempt from attack, and those treated with carbolated whale-oil soap nearly exempt. Those treated with resin wash showed a better record than those treated with carbolated soap. The trunks of all were in a fine condition.

Summarizing: Newspaper wrapping seems to be the most sure though possibly the most difficult to apply. Either of the mixtures referred to does good work in keeping away moths. One point here is extremely important, viz.: the earth should be removed from around the tree for three or more inches below the collar, and a liberal supply of the mixture (supposing a mixture were used) poured or "slushed" with brush around the base of the tree. The necessity for this is shown by the condition of a large number of seedling peaches which were dug up at the college a few days since.

Many large borers (*S. pacifica*) were found way down in the roots, on trees where one would not expect their presence. They had in many instances entered at a Peach plum bud on side of seedling (destroying bud) and then worked down to roots. Our dry season seems to call for but one treatment if trees are examined faithfully at proper intervals. The summer season is so long, however, and in consequence the moth is on the wing so much later than its Eastern cousins, it would seem advisable to make two applications, one after the latter part of May and one about the middle of August. The newspapers, once on, are good for the entire season. F. L. WASHBURN, Corvallis.

## THE FIELD.

### What Secretary Rusk Thinks of California Agriculture.

WASHINGTON, January 22.—The Secretary of Agriculture has issued his report on the crops of the year, in which special reference is made to California. Of the products of last year the secretary says: "The corn crop was good—above the average; the hay crop was also good, but the prices are low. The hop crop has been good in quantity and especially good in quality, and the product is bringing good prices."

"The fruit crop, though not generally so large on account of the wet weather, was perhaps the most profitable ever harvested, on account of the prices realized in the Eastern markets. Large additional plantations will be made during the coming winter. The grape crop has also been unusually good in quality and quantity wherever the vineyards were healthy."

"The raisins and dried grapes were damaged in some sections by early rains, but not to any serious extent. As near as can be ascertained, the wine crop of the State will be about 15,000,000 gallons of more than average quality, and as the old stocks were mostly cleaned out before the vintage, the demands of trade are constantly increasing, and we may hope for a revival of the industry in the next few years."

"The prices of grapes for winemaking have advanced fully one-third, and a hopeful feeling prevails. However, the ravages of the phylloxera and the southern vine disease have been very serious, and the area of productive vineyards will be very much decreased. The planting of American resistant vines offers the only effectual remedy."

The financial condition of California farmers is dealt with at length, and the same compliment is paid to the farmers of no other State, and there are only kind words for the State, though it is really an argument in favor of fruit-growing and against farming for grain.

The Board of Bank Commissioners of California, says the report, undertook an investigation into the financial condition of the farmers of the State, especially as to whether the result of last season had assisted them in freeing themselves from debt. An inquiry was made through the county banks and local financial institutions doing business directly with the farmer, authorities best able to speak accurately and from facts.

Their statements, backed by their business operations, are valuable indications of the general financial position of the agriculture of the coast. A circular from the Board of Bank Commissioners asked in a general way whether

the farmers of the county in which the recipient was located were getting out of debt. The responses which have been submitted to the board almost without exception are in the main gratifying, indicating a decrease of indebtedness, especially during the past year, in almost all lines of rural industry.

Fruit and vine growers have been especially prosperous, canceling rapidly obligations heretofore assumed for the purchase and development of orchards and vineyards, and investing still more extensively in their plants. Quite as marked as the prosperity of these branches of industry is the lack of improvement in the condition of the grain-growers. For several years the margin of profit in wheat-growing has been very small in all parts of the State, while in many districts it is believed that it has been grown at a positive loss.

"In this investigation," continues the report, "the searching and merciless test of the banker's ledger only confirms what this office has long believed and frequently said. Wheat-growing at the prices of recent years, for anything except home consumption, is not a paying occupation for the American farmer. The market of the world is too limited, too easily glutted and too eagerly sought after by the rude and primitive agriculture of other wheat-growing countries, whose laborers are satisfied with a scale of living far beneath that enjoyed by our rural workmen."

The report then gives extracts from responses received from several counties, and continues: "Out of the whole, San Joaquin county alone reports no progress toward settlement. This county, located at the head of a great wheat-growing valley of the same name, is a striking example of the folly of growing grain which can only be sold abroad after long transportation and in keen competition with the product of every wheat-raising country."

"California has all the conditions for an agriculture peculiar to itself. All the products of the temperate zone flourish, and many of those of the tropic habitate at home under its summer sky. There is a possible range and wealth of agricultural production that is hardly equaled by any land. Its possibilities are yet scarcely known. Settled originally by a class of farmers accustomed to the agricultural methods and products of other less favored regions, it is not strange that the first efforts should have been directed to the development of an agriculture in harmony with their previous experience."

"During the past few years the development of special lines of rural industry for which the State is especially adapted has taken place rapidly. Her citrus fruits, with those of Florida, which they so admirably supplement in time of marketing, are beginning to supply the domestic requirement. Her raisins have largely driven the famous Spanish product from our market, and her prunes are supplanting and supplementing the French article."

"Her dried and evaporated small fruits, such as nectarines, apricots, peaches and pears, supply new delicacies to the already broad dietary of our people. The delicacies of today will become the staple necessities of tomorrow. Her farmers now realize the wealth-producing lines of their industry, and it is apparent that hereafter agricultural development will be along those lines peculiar to the Golden State."

"We may expect more of figs and fancy fruits, of almonds, walnuts and other nuts, for which the demand will enlarge with the supply, and less of wheat and other crops grown in competition with the States which are not suited for other products. The growing of crops worth \$10 per acre upon soil capable of producing crops worth hundreds of dollars is a waste of resources that will impoverish any people."

"That the production of wheat in California has reached its limit under the present conditions is shown by the recorded production of the last few years. During five years, 1880 to 1884 inclusive, the average annual product of the State was 36,394,200 bushels of wheat. For five years, 1885 to 1889 inclusive, it averaged but 33,083,600, or an absolute decline of over 3,000,000 bushels in the face of an increase in population between 1880 and 1890 of more than a third of a million."

"These figures show that California farmers are realizing the folly of growing wheat for the glutted foreign market upon a soil better suited for the production of special products steadily demanded at remunerative prices."

THE CALIFORNIA BEE.—The February *Overland Monthly* will contain the first article of its illustrated series upon the industries of the coast. This will be "Bee Culture in California," by Ninetta Eimes. It will be both popular and statistical, giving the figures of this industry, and describing, with illustrations, the bee pastures and ranches, the methods of hiving and handling the honey, the habits and varieties of the bees, etc.

ACCORDING to the *Visalia Delta*, Tulare has within its borders more reserved land (mostly timber land) than any other county in the State. In the Tulare River reservation are 48,666.69 acres; in the Sequoia National Park, 161,596.53 acres; and in the south half of the General Grant Park, which is in this county, 1256.60 acres; the total being 211,515.82 acres.

DURING 1890 the value of buildings erected in Visalia was \$111,200. Among the most important was a \$30,000 schoolhouse.

## POULTRY YARD.

### Poultry at St. Helena.

James Mitchell writes the following interesting letter to the St. Helena *Star* concerning the poultry interests of that region of Napa valley: Of course our poultry interests are small in comparison to the leading industries of the place, yet they are worthy, I think, of notice in your paper; and while there is not as much done as might be, yet there is a sufficiency of encouragement to stimulate an increased interest in the matter, and this should be done in the raising of poultry in general as well as in that of pure-blooded stock.

Our local market as well as in San Francisco shows how there is a demand for both eggs and chickens the whole year. Some of us who confine our attention to the raising of pure stock find a market as far north as British Columbia and south as Arizona and across the Pacific to Japan; and should the attention be given to poultry that might be in this place, we would only be following in with that which is being done on the whole coast, and this is the case, we might say, throughout all the States. Few people imagine the extent of the poultry business in America. The statistical records of our country for 1882 show that the value of ootons raised was \$410,000,000; hay, \$436,000,000; dairy products, \$254,000,000; wheat, \$484,000,000; poultry and poultry products, \$560,000,000. We here see how it surpassed all these others for that year, and we might venture to say that it has increased to a greater extent every year since. Its general nature, being the work of the many, easily accounts for the greatness of the results as seen in the above figures. Of all industries, it is indeed that which has the most people identified with it. It is carried on in town and country, in hill and valley; in cold and hot as well as temperate regions, and by rich and poor; looked after for the most part by the women of our land.

Some make it the special business for their living, but the many have poultry only as something collateral and that which can provide for itself. This is especially the case with the farmer. A mistake is often made in this way. Did farmers give but the one-half of the attention to their chickens that they do to their hogs, cows and other things, they would reap as good, if not better, returns from them as these others. We are as favorably situated in this place for raising poultry as in other parts of our State. The climate is no worse than in other sections and feed can be readily procured; and while we see hens at almost every house, still there might be more. Though we find many of the best breeds in their purity, there is yet room for much improvement in this respect. We are a strong advocate for the pure stock. No matter what breed we fancy, we believe in keeping them pure. Of course a flock of common fowls can be much improved by maturing them with pure stock. Still it is better to have them all pure; both as regards looks and pecuniary results it is better.

I think I may take the credit of doing as much, if not more, in raising fine breeds as any other in this community. When I began some seven years ago, we thought it would take no more to feed a fine thoroughbred than a common dung-hill chicken, and if we could dispose of them we would be more likely to get a better price for both eggs and chickens. To procure our stock, of course it cost more, but in the end it pays best. We keep poultry only to raise fine stock from. Had we an extensive range like a farmer, we would have a large flock for general purposes. I only keep Wyandottes. I fancied them from their beautiful appearance and general usefulness. I began with the silver, and last year I got the golden and white. Of the three varieties I have imported from the East to get my starting stock, I have given every attention in the way of careful mating to produce as fine birds as possible, and to show that my efforts have not been unsuccessful, I have been supplying some of the most noted poultry men on this coast with chickens to fill their orders. Over 20 trios of my silver went to one man last year for his Japan trade. Had my chickens not been A. No. 1, these men in the business would not have patronized me in this way. My silver were also tested at the State Poultry Show held in San Francisco in 1889. This was my first opportunity to exhibit. I secured one first and one second premium on two pair of fowls. The next month I received one first and two seconds on three different birds at the Los Angeles display. I have sent a trio of the silver to the Los Angeles Show held last week and am anxiously awaiting results.

I will have breeding hens of all these varieties this season and am in hopes of having a good market. The Wyandotte chickens have obtained a high position in this and other countries as one of the most useful we have. They make good mothers, are excellent layers, especially in winter, and are much admired on the table.

You will please pardon my dwelling so greatly on my own poultry. My only excuse is I know most about them. Did time and space permit, I might describe other kinds (as fully as I have my own) that we have in this place. There are, for instance, those of Mr. Lewelling's. He has a dozen pens fitted up in the best of style and has them stocked with very choice fowls—White Leghorns, Golden Wy-

and Pekin ducks. He raises by artificial means, having three incubators of the most improved make. This is his second season in raising in this way, and he is much encouraged by his success last year. Mr. Charles Blom, who lives on that gentleman's place, has also a fine yard of Brown Leghorns. Farther down the valley, at Mr. Ink's place, there is to be seen a large flock of the Black Spanish breed. Mrs. Ink is one of our most successful poultry ladies. Mr. Ritchie, on Mr. Norton's place, and Mrs. Hopkins, near Oakville, have fine flocks of Brown Leghorns.

## FRUIT MARKETING.

### That Bogus Fruit at the East.

In our issue of January 3, was an essay by C. H. Allen, read at the State Horticultural Society meeting which gave the writer's observations at the East. Reference was made to a specific instance of fraud in which the name of Porter Bros. Co. was seen on the box. The following, read at the meeting of the State Society January 30, is a further statement on the same subject:

To the State Horticultural Society: I beg leave to transmit to you the correspondence with Porter Brothers, of Chicago, with regard to fraudulent sale of California fruits in the East, in accordance with my last communication, as follows, viz.:

SAN FRANCISCO, Jan. 7, 1891.  
Porter Bros., Chicago, Ill.—GENTLEMEN:—At the State Fruit-Growers' Convention held at Santa Cruz, in this State, Nov. 20, 1890, Prof. Chas. H. Allen, late Superintendent of "California on Wheels," gave his observations as to the methods practiced in the East in putting up what he believed to be Damson plums and marked and sold as "California Spanish prunes." This name is of course entirely unknown in this State and such a fraudulent practice does injury to the fine fruit produced in this State, and which is shipped to the East in very large quantities. Prof. Allen also reported that he saw dried egg plums sold as "Silver prunes," and also marked "egg prunes," and that the brand on the box bore your name. While Prof. Allen said in his remarks that he did not believe that you sold any fruit that was not raised in this State, and palmed it off for California fruit, an explanation is due to the fruit-growers of this State, as such practices are a direct injury to their industry.

In accordance with a resolution adopted at said convention, I have forwarded to the State Horticultural Society the remarks there made by Prof. Allen, and also the report of the committee who had the matter under consideration. I also transmit to you both the remarks of Prof. Allen and the report of the committee as published in this State, which I hope you will consider, and send us an explanation as soon as possible, that it may be laid before the coming meeting, and yourselves righted if you have been wronged.

The fruit-growers request that you send a sample of such fruit as is sold in the East, and as Prof. Allen saw with your stencil, marked "California Spanish prunes."

Hoping to receive from you a reply in order to lay the same before the coming meeting, I remain, etc., etc. B. M. LELONG, Secretary of the State Board of Horticulture and of the State Fruit-Growers' Convention.

The following is the reply received in answer to above communication, from Porter Bros.:

CHICAGO, Jan. 12, 1891.  
B. M. Lelong, Esq., Sec'y State Board of Horticulture, San Francisco.—DEAR SIR:—We are in receipt of your favor bearing date of Jan. 7th, wherein you inclose a copy of the speech made by Prof. Allen at Santa Cruz, Nov. 20, 1890. In reply we beg to state that after an experience of twenty-one years in the California fruit trade, we have no knowledge of ever having sold any egg plums for Silver prunes or egg prunes, neither do we have any recollection of ever having seen any California fruit marked "Spanish prunes."

If Prof. Allen has seen these varieties of fruit in boxes bearing our stencil, it is clearly a forgery so far as we are concerned, for we believe we know the different varieties of fruit grown in California, and we also believe that no gain could ever come out of a misrepresentation of goods of any character, and especially of California products. There is no firm that is more justly proud of California and its products than we are, and there is no firm that would go further and do more to advance the fruit interests of California than we would, as we make almost entirely a specialty of California products, and are known as the leading house in that line throughout the entire United States. We do not think it would be to our advantage to commence at this late day to deceive either the grower or the consumer, and we would be very much obliged to you if you could find out through Prof. Allen, just who the parties were, where he saw this fruit, when they got it and of whom they bought it, as we feel justly indignant at any such practice in marking fruit contrary to its real name, or any reflection upon our house in that direction.

We know Prof. Allen very well, and believe him to be a thoroughly honest and conscientious gentleman. While we do not doubt that he saw what he said he did, yet we think if this matter is probed to the bottom he will find that we were in no way a party to the transaction or in any manner to blame. We have known some unscrupulous retailers in the past to take California boxes and put home-grown products in them, and attempt to palm them off for California fruits, but of late years we have not seen very much of that done.

If there is anything that we can do to ferret this matter out, please give us the exact date, and the firm and place where the Professor saw these goods, and we will do all we can to ferret out the matter.

We trust you will give us the same publicity in the contradiction as you have in the accusation.

PORTER BROS. COMPANY,  
By WASHINGTON PORTER, President.



## PATRONS OF HUSBANDRY.

In our Rural Press Official Grange Edition, issued every week, will be found additional matter from this and other jurisdictions, of interest and importance to Patrons. Any subscriber who wishes can change free to that edition.

### The Master's Desk.

R. W. DAVIS, W. M. S. G. OF CALIFORNIA.

Appoint your committees for the new year at once, then see they get right down to business. I earnestly hope each Grange will appoint a Committee (of say five) on New Members. At each meeting call on that committee for a report, and if no mistake is made in selecting the members, you will find one or more applications at each meeting of your Grange. Do you think the suggestion worth a trial?

It is said that the oldest field in cultivation on this continent is in the Old Bay State of Massachusetts. Report has it that for 200 long and successive years, old Mother Earth there has responded to the chorus of the plow, spade and hoe.

Won't all the Granges which meet Feb. 21, 1891, have something good to say about George Washington? If the Father of his Country were living, he would certainly be a Patron of Husbandry.

Arrange your plans for some solid Grange work. Get into the campaign for the Grange. Let us double the number of enlistments this summer. The farmers' fight is on. Now don't wait for your neighbor to do all the work. He needs your help. 'Tis your duty to help him. Join the Grange, and thus help your neighbor, yourself, the Order, and your country.

There is no doubt of the organization of two or three Granges in Merced county at an early date.

More than a host of bills has been introduced at this session of the Legislature providing aid for Tom, Dick and Harry. How nice it would be for some Granger to introduce a bill for the relief of the people! Don't you think less appropriations should be made? How about saving some of the hard earnings for the wife and babies, instead of stinting the family in order to meet the tax-gatherer's claim? Watch your representative, and see that he votes to keep within the 50-cent limit!

At a recent Grange meeting three Patrons promised to present three applications for membership at the next meeting. That Grange will report a successful year when we meet at Haywards next October. How many such reports are to be heard? When is the next Grange to report progress?

The many friends of Sister J. Strentzel of Alhambra Grange, at Martinez, will be pained to hear of her sickness. The writer paid a fraternal and social visit to the aged and venerable sister a few days since, and though she was confined to the bed, she was yet as pleasant and instructive as in the days of her youth. Her whole heart, soul and love still cling to the grand old Grange. May God, in His love, restore her to health, so that she may be spared many, many years for the good that she will do to family, to friends, and to humanity.

Let us then be up and doing, with our hearts in the work, for the night will soon be upon us and the toiler must go to his rest.

Corn is selling in the Eastern States at fifty cents per bushel. One year ago it was worth but twenty-eight cents. That is a pretty good gain. Fewer grain trusts and pools, and all farm products will advance in price. Patrons, to the front! Let's down with the combines!

And how the turkeys gobbled (no more) which our commissaries fiddle for the many Harvest Feasts. The Grangers believe in home consumption of turkeys, chickens, rich oaks, crisp pies, hot coffee, and ten hundred other goodies. If you don't believe it, attend a few of the Grangers' "spreads."

The State Grangers' picnic seems to meet with much favor. What county in the State wants the picnic? Let us hear from some of the Pomona Granges. They can handle the picnic in good shape. Seems to me it is just in their line of business. Pomona, don't be afraid to strike your Steele with the Grangers' Flint. Sonoma's Martin may be caught, but no ordinary trap can hold him long at a time. Hurrah for the State picnic!

How to make money, did you say? Save it after you have earned it. Spend only when absolutely necessary. Saving is making, but don't save to be stingy and miserly. Spend money when it will buy better things than money!

The busy season for the majority of California farmers is, for the present, over. Till harvest is ready there is but little for the farmers of San Joaquin, Merced, Fresno, Tulare, Kern, Stanislaus, Colusa, Yolo, Solano and Tehama counties to do. This is just the time for these farmers to put their heads together for their common good. Now is the time to

enjoy what you have acquired and to prepare to protect what you expect to harvest. There is no better place for farmers to meet than at the Grange. There they can reason together, talk together, sing together, eat together, plan together and act together for their social, political, financial and moral welfare. Won't some person, who once belonged to the Grange in each of the counties above named, go to work and reorganize the Granges in his county? There is good pay and pleasant work in store for such a person. Full information and all blanks required can be had of A. T. Dewey, 220 Market St., San Francisco, Cal. Send for full outfit, and send at once.

Don't let your Grange meetings drag! Keep something before the meeting all the time. Patrons do not go to the Grange for a nap. They want some sort of entertainment, and if they have it they will not only attend promptly, regularly and constantly, but they will add to the profit of the meetings by "participating in the proceedings thereof." Try to keep things going at your meetings and note the result!

Arrange for Bro. Hayes! Do all you can to get the farmers to hear him. He will convince them that it is good to belong to the Grange. Send special and personal invitations to your farmer friends to come to the meeting.

The country schools will soon open for the spring and summer terms. Our Order prides itself on education, therefore let every Patron see to it that his district school is as good as the best, and that the teacher of that school is competent in every particular to teach—not alone arithmetic, grammar and history, but to teach manners, morals, politeness, industry and the use of a whole lot of sound common sense. Common sense is an article always in demand. It will sell in any market at a good price, either wholesale or retail. Did you ever try to find somebody who had a big supply on hand? If you found such a person, he was in no hurry to sell his stock. He knew it would keep and would enhance in value with age. See to it that the children have a chance to absorb some common sense. It matters little what source it comes from, so they get the pure article.

Now is the season for work in the flower garden. The department of flowers in our noble Order is under the keeping and control of worthy Flora. In behalf of the thousands of sisters in the Grange, we call on Sister Flora for advice and instruction to aid us in the work of our ornamental gardens. Flowers are ever welcome. Their culture is a pleasing study. Won't Sister Flora give us some information? How would a bouquet look on the Master's Desk, about now? A bouquet of words as well as of flowers, for the good Patrons and Matrons of California, is what this calls for.

When about to confer degree work, be sure to see that the hall, the candidates and all the paraphernalia and regalia are in proper place and in perfect order.

### He Could Not Withdraw.

Past Master John Sites made up his mind to withdraw from Antelope Grange. He attended a recent meeting with that intention. It happens that Antelope Grange has been considerably revived lately through the influence of Bro. Chapin and other good Patrons. Some 20-odd young members have been taken in. A number of them were filling the chairs. Good music was provided and new life and enthusiasm pervaded the Grange circle. Bro. Sites had seen these young people grow up in his neighborhood, and could not otherwise than feel an interest in their company and achievements. Finally, instead of withdrawing from the Grange, he made one of the best and most encouraging speeches he ever delivered in favor of the Grange.

We are glad to hear these good things of Antelope, and print them for the benefit of other Granges that may follow its example. Let them take into consideration the matter; see that a committee is appointed to canvass for young recruits, or make the Grange a Committee of the Whole to revive itself by such a happy process as Antelope is now reaping the benefit from.

We think Bro. A. D. Logan's visits to Antelope Grange lately have not done him or the Grange cause any harm, but really a notable amount of good. We believe both feel younger. May they continue to prosper together.

FARMER'S INSTITUTE.—We have information that the Board of Regents of the State University will most likely grant the petition of the State Grange for the appointment of a Lecturer, with salary and expenses paid, for supporting and encouraging Farmers' Institute meetings which may be called in different parts of the State. When the matter is finally determined, the necessity of a call of the Farmers' Institute Committee will be determined.

PLUMAS GRANGE.—R. A. Heriot, Master of Plumas Grange, writes: Our officers and members are encouraged at the prospect of having a good year in the Grange, as there will be quite a number of applications put in as soon as the weather clears up. Though small in number, our Grange is strong in the cause.

### Master Hayes' Meetings.

Worthy Master Hayes of Oregon arrived at Auburn from the East about 1 o'clock A. M. Thursday, Jan. 29th, and gave a public lecture on Grange, farming and public matters in the afternoon. The meeting, although not largely attended, was an exceedingly earnest one. The speaker was well appreciated and urged to come again before leaving the State.

After a brief call at Sacramento, he was received and entertained by Past Master Overhiser, Bro. Beecher and others, and addressed a good meeting of Patrons at Stockton Saturday afternoon. His speech and the discussions following were animated with good cheer. On the same evening, at Waterloo, a large public gathering was addressed in Bro. Hayes' square and plain manner. Questions were asked and answered, and no doubt a good and beneficial result will follow the farmers' progressive movement at Waterloo.

We had the pleasure of Bro. Hayes' presence in S. F. on Monday. He visited the State Horticultural Commission rooms, the New City Hall and other places of interest, and on Tuesday morning started for Pacheco, where he met a good number of Patrons, including representatives from other Granges of Contra Costa Co. Bros. A. D. Logan and N. Jones were among the P. M.'s met on the way by Bro. Hayes.

Wednesday evening, Santa Rosa no doubt gave Oregon's lively representative a noble, fraternal reception at the residence of Past Master S. T. Coulter. Every old Granger knows that it must have been a splendid time, and unfortunate was the Santa Rosa Patron unable to attend.

Thursday morning, bright and early, Bro. Coulter volunteered to take Bro. Hayes to Two Rock Grange, where, we trust, he met a liberal delegation from Sebastopol Grange and all neighboring farming districts. Two Rock Grange has some of the most active members among the working Patrons of the State.

At Yuba City, Saturday, Feb. 7th, The Oregon Captain will meet many old veterans and friends in the cause, as well as other progressive farmers who are becoming wide-awake to the interests of their calling and the public welfare. We hope to hear of a splendid meeting there.

In Solano Co., Next Week, Special Deputy F. B. Logan, who has successfully accomplished the organization of more Granges in this State during the past many years than any other one individual, has promised to visit Solano county and make appointments for lectures for Bro. Hayes, to be delivered next week, from the 9th to the 13th, speaking, probably, as often as every other day to public gatherings of farmers called for consultation of their material and fraternal interests.

Wherever Bro. Hayes is announced to speak, there should be a good gathering from all the neighborhood around, of both organized and unorganized farmers and their friends.

He will also, by farm visits, become more familiar with our people and farm-doings and wants in California. It is a noble and generous work that Bro. Hayes is doing for the Patrons of his neighboring State. We think he will go home enlivened and encouraged, and, after a little rest, accomplish more work than he might otherwise be able to do for his own people, who are already anxiously looking for his return.

Sacramento, Saturday, Feb. 14th.

Bro. Hayes will visit the California State Capital and Legislature, probably in the A. M., and give the Patrons and farmers a rousing address, at Grange-hall, at one P. M.

### For the Week Following.

The program is not yet definitely laid down for Bro. Hayes, but we hope that Bro. Frisbie will arrange a series of Grange meetings, north of Yuba City, which will accommodate all farmers, together with the following Granges, (two or more uniting, in some instances, in a union meeting, perhaps), viz., South Sutter, March, North Butte, Gridley, Grimes, Orland and Antelope (at Maxwell or Sites). Some of these are new Granges, which should be especially encouraged by the inspiring words of such a good old veteran in the cause as Worthy Master Hayes of Oregon.

### To Oregon.

In this connection we wish to say to the brothers and sisters of Oregon, you may well be proud of the sterling representative work of your Worthy Master in California. He has already won laurels of friendship for you and himself, and California will not be so unappreciative as not to try to return Oregon as great a favor, if possible, in reciprocation of Bro. Hayes' good work.

### Oregon's W. M. at Our State Capital.

Bro. Hayes will address an open meeting at Sacramento Grange-hall, Saturday, Feb. 14th, at one o'clock P. M. Let the Grangers throughout Sacramento Co. visit their State capital and listen to Oregon's foremost Grange worker.

We have received from the Secretary, J. A. Newcomb, a copy of the Annual Proceedings of Colorado State Grange.

GRASS VALLEY GRANGE installed its officers Jan. 24. The Grange has no debt and its prospects are bright.

### Do Not Repeal the Railroad Commission.

EDITORS PRESS:—I am exceedingly sorry to see that there is an effort in our Legislature to disorganize the Railroad Commission; also that some well-minded men are vociferous for such a change on the ground of economy. In my opinion, this process would be "saving at the piggy bank and losing at the bank." Just go back to the time the Railroad Commission was established. See what the railroad rates and fares were then. Can any man believe that they would have been lowered one-half as much, or at all, had there been no Railroad Commission? Certainly when Gov. Stoneman was in the commission it did some good, although nothing to what it ought to have done. The passenger fares to-day are double what they ought to be, over a majority of the lines in this State. In several instances the people have come very near electing men who are out and out in favor of doing them justice. As it is, we have been no doubt some better off than without any commission at all. The cost of the commission so far is but a trifle as to what the saving has been to the public at large. In my opinion, more than half the blame for not correcting the abuses prevailing against the patrons of the roads is due to the sufferers themselves because they do not combine and unitedly help each other to get their wrongs redressed.

They endeavor to go single-handed to grapple with the united enemy. There ought to be a Citizens' Union to employ attorneys to cope with those of the railroad before the Commissioners, it would seem.

I more than half believe it is in the railroad interests that this movement for removing the Commission is made. The signs of the times are in favor of the people soon electing men who will serve them instead of their enemies in public affairs. The rumbling thunder in the East has possibly admonished some folks on this side that the lightning indignation of the people may also strike here.

I would urge the Executive Committees of the State Grange and Alliance, and also the Legislative Committees of those bodies, to lose no time in investigating this matter, by comparing facts and figures and candidly contemplating the future. See if they have not a duty to perform in preventing the doing away of the Railroad Commission.

Put in the right hands, with everything established as at present, it need not be expensive to continue a truly guardian commission in so important an interest. Certainly no honest man who is trying for this repeal is getting much hurt by the Commission, if not being in a measure at least benefited.

Let us hold on to the Commission another term and see if we cannot force it to do its honest duty, and then elect successors who will not need watching. AN OLD GRANGER.

### State Lecturer Steele on Pure Food.

G. W. Steele, Lecturer of the California State Grange, sends the following vigorous denunciation of adulterated food, etc., to the National Grange Legislative Committee:

The adulteration of food and drink, designed for human consumption, is among the villainies practiced for which there is no excuse save the greed of those engaged in the nefarious business of manufacturing or compounding these spurious articles.

There have been mutterings and complaints uttered by people all over the land—and their name is legion—who condemn these counterfeit products, which, perhaps, for the want of organized effort on the part of the complainants, have not reached the ears of our legislators in Washington in an authoritative manner.

Not only have the consumers of the adulterated articles, such as lard, butter, cheese, etc., reason to complain, but the producers of the genuine article feel that they are being defrauded of their just rights and robbed of the fruits of their labor, by being compelled to compete in the markets with these spurious articles labeled and sold as genuine.

It is time that the farmers and dairymen, who are producers of pure lard and butter, should rise as one man and speak in a voice that shall be heard by our legislators in Washington against the adulteration of these articles, and petition Congress for the passage of stringent laws prohibiting the same.

If oleomargarine and spurious lard must be manufactured, at least compel them to be sold on their own merits. We have stringent laws, imposing severe penalties, for counterfeiting the currency of the country. If we protect money, with much more reason should we protect foods and drinks, for the health, as well as the pocket of the user, is affected thereby. The rich and well-to-do can largely protect themselves against the use of these spurious articles, but the poorer classes need the protecting care of the strong hand of the Government, which should not fall them in time of need. Let us have pure butter, pure lard and pure food, in the interest of good health, and the financial advantage of both producers and consumers, is the cry of the people all over the land.

WORTHY MASTER DAVIS is in correspondence with Dixon parties in reference to reviving the Grange at that place. Several prominent farmers favor the project.



## FARMERS' ALLIANCE.

SUBSCRIBERS wishing fuller information of the Alliance can have their names changed to the Grange Edition of the RURAL PRESS free, much to their advantage, this department being continued in the same.

## The New U. S. Senator from Kansas.

Following is a brief sketch of William Alfred Pfeffer, recently elected to succeed Senator Ingalls:

William Alfred Pfeffer was born in Cumberland county, Pa., in 1831, and is of Dutch parentage. In 1850 he caught the gold fever and went to California, where he remained two years. He made considerable money and returned to Pennsylvania, soon after removing to Indiana, and later to Missouri. He served during the war in the Eighty-third Illinois Volunteers. At the close of the war he settled at Clarksville, Tenn., practicing law, and in 1870 he moved to Kansas, taking up a claim. At different times he edited various papers, served in the State Senate, and was a delegate to the National Republican Convention in 1890. In that year he moved to Topeka, assumed editorial control of the *Kansas Farmer* and afterward bought the paper. He has been engaged in the publication of that paper ever since. It has a wide circulation among Kansas farmers, and exerts much influence over them. He joined the Farmers' Alliance movement a year ago. Up to that time Pfeffer was a staunch Republican. He continued his policy as Senator to the Associated Press representative, saying that he favored the absolute, unlimited coinage of silver and the conservative expansion of currency along other lines. He was in favor, he said, of protection to home industries, but believed that the best protection did not always result from a high tariff. Protection by tariff, as a general principle, he said, is wrong. A high tariff should be called in to aid only individual struggling industries. He now favored an average ad valorem duty of 20 per cent. He was opposed to the Force bill.

## Seventeen Alliances in San Joaquin County.

In less than a month and a half seventeen subordinate Farmers' Alliances have been organized in San Joaquin county, with a total membership of over 400, and the work of organization is still progressing steadily.

State Deputy Cook begins work next week in Sacramento county, and J. H. Duncan of Linden takes Mr. Cook's place as deputy for San Joaquin county.

Other organizers will begin work soon in Calaveras, Tuolumne and Amador counties. The County Alliance meets at Lodi, February 12th.

The secret work of the Order has been considerably changed, and the new work will soon be exemplified by Colonel J. S. Barbee, who is now on his way north for that purpose.

Wrightman Alliance was organized at Lincoln schoolhouse Tuesday afternoon with a charter membership of eighteen. John A. Swain was elected President; L. D. Wakefield, Vice-President; Robert G. Williams, Secretary; Mrs. M. Hammer, Treasurer; John Garnett, Chaplain; Charles Swain, Lecturer; Miss Jennie Williams, Steward; Charles McMurray, Doorkeeper.—*Stockton Independent, Jan. 29.*

## Elsinore Alliance.

EDITORS PRESS:—As a result of the recent lecture of Mrs. Anna F. Smith, Elsinore Alliance has been formed, with 15 members and 12 applications. The following are the officers:

Geo. S. Irish, President; Lafayette Yates, Vice-President; T. S. Painter, Sec.; Norman L. Dickson, Treas.; James Stewart, Chap.; Mrs. E. Beck, Steward; P. W. Mintorn, Leot.; Geo. W. Haskins, Doorkeeper; Miss Mabel Yates, Ass't D. K.; Mrs. P. W. Mintorn, Ass't Leot. The prospects are that we will go ahead lively now. Our subject for discussion at next meeting is the Australian Ballot system and Sen. Stanford's Farmers' two-per-cent mortgage bill, which I believe would be one of the best things possible for the farmers if other classes could be kept out of it. But there is where the trouble would be—every one would own a little land if it was on the top of some mountain or off in the desert, anywhere so they had the land to mortgage from year to year. There would be so many thousands of these that never were farmers that the matter would be overdone.

L. YATES.

## Hines in Humboldt and Sacramento.

Bro. J. W. Hines, State Organizer, called on us Friday last and informed us that he would start for Humboldt county Jan. 31st, in answer to a call for a Farmers' Alliance there, very encouraging correspondence having been received from Arcata and other points. Bro. Hines is a former resident of that county, and we feel confident that good work will be done there very soon. He had just returned from Sacramento, where the work is prospering, and a County Alliance will be organized in a short time. Sufficient Alliances are now in line to insure a good and speedy organization of the county. We bespeak for Bro. Hines a warm reception and good success among the progressive people of Humboldt county.

## Hayseed Is Risin'.

[Attendants at the Alliance banquet at St. James hotel, San Jose, last October will recognize the following, written by A. T. Worden and recited by Bro. C. W. Pedlar, Secretary of the State Alliance.]

We kin all of us remember how 'long about September

The papers used ter tell about the caucus or the fair,

End them fellers from the city used ter get almighty witty

On the feller with the duster what had hayseed in his hair.

They hed fun in Legislatures with the man what raised petters,

If by any hook or crook or chance elected and sent there,

End the reportorial friskers used ter comment on the whiskers

End the carpetsack of Billson, what had hayseed in his hair.

Yes b'gosh! he rid his pass out end he used ter blow the gas out,

End he used to drink hard cider when he went out on a tear,

End he used ter pinch a dollar till the buzzard used to holler,

End the man cut up roe-e-diklous what had hayseed in his hair.

But, by gum! if you've been readin' you observe a strange proceedin'—

It's the feller with chin whiskers that is slowly gettin' there.

End it won't be too surprisin' ef by slowly organizin' Old parties may wake up tew find the hayseed in their hair.

When the fashions change you fellers will all carry green umbrellas

End trowsers wide across the seat to make the dudelets stare;

In them times of you pass muster you must wear a linen duster,

End ef you want ter throw on style put hayseed in your hair.

FOREST PRESERVATION.—The Santa Barbara County Alliance has adopted strong resolutions condemning the great waste and thefts of California's timber supply; urging upon the Legislature the imperative need of increased protection and control of the forests; demanding the enlargement of the powers of the State Board of Forestry, to include supervision of the State school lands, with authority to sell at auction the timber on said lands when it reaches maturity; and strongly censuring the Legislature for voting over a million dollars toward the erection of public structures of ornate architecture, and refusing an efficient appropriation for the care and preservation of our forests.

THE Farmers' Alliance meeting last Tuesday night was not only well attended but quite a large number was initiated into the Order. T. O. Gallup, the county organizer, was present, and assisted at the initiations. He had just received the new secret work of the Order and imparted it to the members present. Price-lists were received from the Alliance agent at San Francisco, and on application to the Secretary they will be furnished to any member of the Order in good standing. Orders for goods should be made through the Alliance agent at this place, who will probably be appointed at the next regular meeting.—*Williams Farmer*

FARMERS' ALLIANCE OFFICERS.—A Farmers' Alliance was formed Saturday evening at Roberts Island with officers as follows: William Pile, President, Undine; A. C. Fick, Vice-President; Oscar Pile, Secretary, Undine; J. A. Reynolds, Treasurer, Stockton postoffice; A. J. Lund, Chaplain; C. P. Kalning, Lecturer. The Alliance meets at the Garden schoolhouse.—*Stockton Independent, Jan. 20.*

NEW ALLIANCES have been organized at Oak Park, Enterprise and Brighton, Sacramento county, and at Bellota, San Joaquin county. President Cannon has appointed the following deputy organizers: J. H. Duncan for San Joaquin, Edward Davis for Calaveras, and D. M. Towne for Amador county. The San Joaquin county Alliances are receiving large accessions to their membership.

C. W. HATCHER furnishes a well-written contribution to the *Yolo Democrat*, urging the farmers of that county to join the Alliance and rid themselves of the burdens now oppressing them. The condition of affairs is stated so clearly as to be comprehended by all.

H. C. DAUNTLESS, Santa Cruz County Organizer and Lecturer, addresses members of the Order in the Watsonville *Pajaronian*, recommending their personal of the State Constitution, and stating that he will furnish them with copies of Alliance documents.

AN ALLIANCE has been organized at Yuba City, with J. J. Pratt as President and H. D. De Gaa Secretary. The Marysville *Democrat* heartily favors the organization and offers the use of its columns to further the farmers' cause.

HEALDSBURG ALLIANCE has been formed, with D. G. Jewett President and Mrs. Allie Brown Secretary. Mrs. Squire has been actively at work in that vicinity.

CITRUS FAIR ALLIANCE No. 1 has been organized in Sutter county, with F. Hauss as President and Wm. Stewart Secretary. Its location is in Barry school district.

STANISLAUS COUNTY ALLIANCE has adopted strong resolutions denunciatory of the Force bill.

## The Santa Clara County Fruit Buyers.

The Santa Clara valley fruit buyers and fruit driers have pooled their issues and formed the "Association of Fruit Buyers of the Santa Clara Valley."

The two associations thus fused have, according to the *Mercury*, submitted the following contract and system of grades for the consideration of the association, saving that the measurement of grades could be decided upon if those in the contract submitted were found to be faulty:

All fruit delivered ungraded shall be graded by buyer, which grading shall form the basis of settlement. All fruit delivered graded, which on examination shall fall below the grade claimed, may be re-graded by buyer, for which seller agrees to allow buyer ½ cent per pound.

## APRICOTS.

Extra—Shall measure not less than 2½ inches in diameter, shall be sound, clean, free from blemish or imperfection, not over-ripe and fully matured.

No. 1—Shall measure not less than two inches in diameter, shall be sound, clean, free from blemish, not over-ripe and fully matured.

No. 2—Shall measure not less than 1½ inches in diameter, shall be sound, clean, free from blemish and not over-ripe.

No. 3—Shall measure not less than 1 inch in diameter and shall be of good merchantable quality.

## CHERRIES.

Extra—Shall measure not less than ¾ inch in diameter, shall be sound, clean, free from blemish or imperfection, not over-ripe and fully matured.

No. 1—Shall measure not less than ½ inch in diameter, shall be sound, clean, free from blemish, not over-ripe and fully matured.

No. 2—Shall be sound, clean and of good merchantable quality.

## PEACHES.

Extra—Shall measure not less than 2½ inches in diameter, shall be sound, clean, free from blemish or imperfection, of uniform ripeness, not over-ripe and fully matured.

No. 1—Shall measure not less than 2½ inches in diameter, shall be sound, clean, free from blemish, of uniform ripeness, not over-ripe and fully matured.

No. 2—Shall measure not less than 2¼ inches in diameter, shall be sound, clean, free from blemish, not over-ripe.

No. 3—Shall measure not less than 1½ inches in diameter, and be of good, merchantable quality.

## PEARS.

Must be delivered as soon as picked.

Extra—Shall measure not less than 2½ inches in diameter, shall be sound, clean, free from scab, scale, blemish or imperfection, not over-ripe and fully matured.

No. 1—Shall measure not less than 2½ inches in diameter, shall be sound, clean, free from scab, scale, blemish or imperfection, not over-ripe and fully matured.

No. 2—Shall measure not less than 2¼ inches in diameter, shall be sound, clean, free from blemish and not over-ripe.

No. 3—Shall measure not less than 2 inches in diameter, and to be of good, merchantable quality.

## PLUMS.

Extra—Shall number not more than — to pound, shall be sound, clean, free from blemish or imperfection, not over-ripe and fully matured.

No. 1—Shall number not more than — to pound, shall be sound, clean, free from blemish, not over-ripe and fully matured.

No. 2—Shall be sound, clean fruit of good, merchantable quality.

## PRUNES.

Extra—Shall number not more than — to pound, shall be sound, clean, free from blemish or imperfection, not over-ripe, and fully matured.

No. 1—Shall number not more than — to pound shall be sound, clean, free from blemish, not over-ripe and fully matured.

No. 2—Shall be sound, clean fruit of good, merchantable quality.

Fruits not enumerated in the above schedule shall be specially graded as per agreement between buyer and seller.

We hereby certify that the terms, conditions, and grades, above named, were adopted by the Santa Clara Valley Fruit Buyers' Association, Jan. 20, 1891, as the standard.

On the back of this are two contracts, known as the seller's contract and the buyer's contract, similar in wording and the same in effect. The seller's contract is as follows:

In consideration of the sum of \$1 to me paid, the receipt of which is hereby acknowledged, I, John Doe, hereby sell and agree to deliver to the Jones Drying and Canning Co., subject to the terms, condition and gradings herein-after stated, the quantities and varieties of fruit named below, at the prices specified for the respective grades. Delivery to be made at the factory of the Jones Drying and Canning Co., in condition suitable for — purposes, unless otherwise specified. Read grades and conditions on back of this contract. Terms, 30 days, or one per cent discount for cash.

Below this contract and above the signatures is a table giving fruit, variety, minimum estimate, maximum estimate, quality, determined as Extra, No. 1, No. 2 or No. 3, according to the grades on the other side.

Mr. Dawson stated that the extra grade had been placed on the contract because there is

such a thing as extra fruit, and the producers of such fruit should be given an opportunity of getting an extra price. For those fruits not enumerated, grades could be established between the buyer and seller.

A Committee on Contract was appointed as follows: E. L. Danson, W. H. Mantz, W. W. Cozzens, W. H. H. Wright, W. E. Ward, Geo. A. Fleming and J. Z. Anderson.

## Premiums at Southern California Citrus Fair.

The next great event in horticultural circles will be the Southern California Citrus Fair, which will be held in Los Angeles, opening March 3 and continuing during the week or longer. The following list of premiums has been arranged:

Exhibit of citrus fruits from any county, first premium, \$400; second, \$200; third, \$100. In order to compete for the county premium, authority must be given some person or persons at a regular called meeting of fruit-growers to enter the exhibit and receive any premium awarded.

Exhibit of citrus fruits from any locality, first premium, \$150; second, \$100; third, \$50. Any city, township, school district or well-known town will be recognized as a locality. Organization to be formed as for county exhibit.

Exhibit of Washington navel oranges by an individual, first premium, \$75; second, \$50; third, \$25.

Exhibit of budded oranges other than Washington navel, by an individual, first premium, \$75; second, \$50; third, \$25.

Exhibit of seedling oranges by an individual, first premium, \$75; second, \$50; third, \$25.

Exhibit of budded lemons by an individual, first premium, \$80; second, \$60; third, \$40.

Specimens of Washington navel oranges, not less than one box (quality), first premium, \$20; second, \$10.

Variety of budded oranges, other than navel, not less than one box (quality), first premium, \$20; second, \$10.

Specimens of seedling oranges, not less than one box (quality), first premium, \$20; second, \$10.

Specimens of budded lemons, not less than one box (quality), first premium, \$20; second, \$10.

Variety of late-budded oranges, not less than one box, \$15.

Exhibit of Japanese variety oranges, not less than one box, first premium, \$10; second, \$5.

Exhibit of limes, \$10.

Exhibit of olivons, \$5.

Exhibit of shaddocks and pnmelo, \$5.

Exhibit of raisins from any county, first premium, \$150; second, \$100.

Exhibit of raisins from any locality, first premium, \$75; second, \$50.

Exhibit of raisins by an individual, first premium, \$50; second, \$25.

Exhibit of five-pound box of raisins, first premium, \$10; second, \$5.

Exhibit of two and one-half-pound box of raisins, \$5.

Exhibit of dried figs, first premium, \$25; second, \$10.

Exhibit of pickled olives, first premium, \$20; second, \$10.

Exhibit of olive oil, first premium, \$20; second, \$10.

Exhibit of walnuts, first premium, \$40; second, \$20.

Exhibit of dates, \$5.

Exhibit of pomegranates, \$5.

Most artistic display of plants and flowers, first premium, \$30; second, \$20; third, \$15.

STATE BOARD OF AGRICULTURE.—The State Board of Agriculture met Feb. 3d in annual session. Secretary Edwin F. Smith submitted the annual report. Senator Fred Cox of Sacramento was elected President of the Board for the ensuing year. The dates for the State Fair were set for September 7th to 19th inclusive. The usual two, three and four-year-old trotting stakes were ordered to be given, and two additional pacing stakes for two and three-year-olds. The Board decided to offer a stallion purse of \$2500 and to offer a California State Fair Futurity Trotting Stake, guaranteed to be worth \$7500, for the colts of mares to be named March 15th, to trot at the State Fair of 1893 as two-year-olds, and as three-year-olds the following year.

HISTORY OF COLUSA COUNTY.—From such a cursory examination as we have thus far been able to give to it, we should class the History of Colusa County by Justus H. Rogers as among the best of the county histories produced in California. It is a handsome volume of 475 pages large octavo, fully illustrated with scenery, buildings, portraits, etc. A large part of the engravings are by the Deway Engraving Co. of this city. The text seems to be prepared with care, and many facts are presented which are of far more than local interest.

CALIFORNIA ON WHEELS.—"California on Wheels" will leave Portland, Or., February 8th, and stop at the following places: Oregon City, Salem, Albany, Eugene, Roseburg, Medford, Ashland, Redding, Red Bluff, Chico, Marysville, Woodland, Sacramento, Stockton, Livermore and West Oakland. The cars left San Francisco Dec. 3, 1889, and will be home February 28th.





## Grassvale.

Grassvale lay hidden in the hills in indolent repose, it lay there like a snowflake in the bosom of a rose. Against the mountains on the east, the east winds vainly pressed, and the mountains stopped the fury of the storm-burst from the west.

But the Grassvale people waited for a railroad to come down and tunnel through the mountains and wind grandly into town; through the weed-grown streets of Grassvale, men would saunter to and fro and tell how when the railroad came the little town would grow.

Every night to Durkee's grocery came a crowd of men to talk it, with big empires in their fancy and two nickels in their pocket; but the cows trod down the dahlias in each housewife's small front yard, and whole droves of pigs went rooting down the village boulevard.

Every morn the magic sunrise all the eastern hills would streak, and God flung His sunset banner from the topmost western peak; but moss grew on the houses where no paint had yet appeared, as the face that has no beauty is the first to raise a beard.

The chimney of the old town hall was thrown down by the rain, and they stuck a rusty funnel through the bottom window pane; at the Baptist church the steeple blew off one tempestuous day, and they left it as a rendezvous where hens could go and lay.

The great dream of the railroad banished their uneasy fears, although they had a suit of clothes but once in thirteen years; for they reasoned when the railroad should come winding down their way they should have a pair of trousers almost every other day.

And we all wait for our railroad while our front yards grow with thistle, lay and listen in our valley for the locomotive's whistle; yes, we build up mighty railroads in our super-heated brain, while we ought to climb our mountains and just foot it to the train. —Yankee Blade.

## A Stir in the Henhouse.

[Written for the RURAL PRESS by LCPA.]

There was a nestling, a fluttering, a scramble or two, an emphatic, almost wrathful voice, a protest and a confirmation, but few of the inmates of the henhouse seemed to realize, while they listened for an admonitory "Tut tut tut!" that it was the slow crowding of Sir Chanticleer's fat sides and the spreading of his big feet that had unbalanced his next neighbor and rippled the disturbance from end to end of the roost. But how could he help it if he had become too big for his usual place? It seemed a pity if he must be refused room in which to grow, though, to be sure, his life had been one of such ease and he had been the subject of such tender care from all the barnyard world that had listened to the music of his voice without attempting competition, that it did seem almost unreasonable for him to ask more.

When, less than a week before, brisk, money-making Miss Leghorn heard him express a wish to accomplish something for himself, she had merely told him to "Shut, shut, shut, shut up!" and then gone about her business, thinking she had ended the matter. When he discontentedly lingered near portly Madame Brahma as she fluffed herself over the fence eggs and dreamed of the beauties yet to be, or later, when she strolled about with the dear, "tweeting" midgets, she complacently pitied him a little, but admired herself more; for of course he shouldn't have been a rooster if he didn't think he would like it; but she immediately crossed herself at that thought, for she knew the Lord made him so, and he ought to fulfill his mission and be thankful. It was a beautiful thing to sit on the fence flashing his colors in the sunshine or sending his morning song echoing over the hills.

However, Madame Brahma was a trifle lazy and might have had more reason to sigh if her indolence had not been taken advantage of, because it could be made profitable, and also if Miss Leghorn and Miss Spanish had not furnished the raw material for her to work up. When she produced any young of "her very own," they had too little energy to dress themselves till they were nearly grown, but so long as she was comfortable she did not feel bound to distress herself about her neighbors or the next generation; therefore Chanticleer's un-

easefulness seemed foolish and almost annoyed her.

When Miss Leghorn reached the field she told one of her friends what a good joke she had on Sir Chanticleer, how he wished he was a hen—actually wanted to unsex himself—but the best of it was its impossibility. Who wanted any more hens in the field? All he was good for was to sing and look pretty and see that the race did not die out. "His society!" Oh yes, they presumed that would be pleasant if they had time for its full enjoyment, but there was too much work to do in these days of incubators and cock-fights, so they chattered and stratched.

The days went by and every one except the head of the family seemed busy and happy, but he took to moping in fence-corners and on the south side of the shed, showing little interest in his fast-growing-up descendants. Indeed, he appeared to have had more than he wanted of them and to feel disgusted with the whole plan of creation, at which they greatly wondered and respected him less than ever. Sometimes when he was sulking near where the maids and matrons were having a spirited discussion concerning the properties, hidden and unhidden, of an enormous angle-worm, he would suddenly drop his head lower, snatch the morsel and swallow it before they could say, "Well, I never!" and sometimes in the dark he would slyly push them off the roost, as we mentioned in the beginning, for he had the spurs and he was bigger.

At length these little retaliations forced themselves into serious notice, and so it came about that whenever two or three hens were gathered together the subject of discussion was sure to be the strange, unroosterlike performances of Sir Chanticleer, such as slipping on a nest when the owner was out getting her dinner, though there was not the least need of it, for she knew very well how long it would do to be gone, or trying, in a very odd, improper manner, to call the chickens to the top of the fence with him, or teaching them a more musical style of clucking. It was all nonsense, too, for him to hint that they might keep their combs brighter and their feathers tidier when they were sitting. Didn't they know their own business best and know that the very nature of things made such changes impossible? Why couldn't he be contented to stay in his proper sphere? How ridiculous, too, it was for him to complain that King Man always spoke only of keeping hens, thereby overlooking him! As for following a career and making a record for himself, he was not capable of such exertion. If he wanted to make himself useful he might find worms and grain for them. He really ought to be reminded of this duty of which roosters had grown very neglectful in these degenerate days.

Sir Chanticleer heard many of these remarks, but they made him no happier, and the more he was found fault with the more he moped, till King Man began to talk of capital punishment and the substitution of another, as he feared that the descendants, if there chanced to be any, of one with so little ambition would be worth nothing; then he wondered what was the cause of this condition; if civilization had changed the nature of both sexes, till that of one was left simply progenitive and the other over-devoted to the various occupations of life, almost contemptuous toward its more ideal enjoyments, till, at least during the busy season, the "spheres" of each had grown to be as clearly defined and as separate as the paths of different planets, yet bringing little individuality to the one that lived merely to be attractive. He remembered that wild birds paired; watched the doves as they gracefully bowed themselves in and out of the doorways, continually sharing labors and pleasures; listened to the loud-voiced sociability of the geese and gander all by themselves in the wagon-shed and—wondered.

Just then a long-legged Shanghai mounted the division fence between that and a neighbor's yard and screamed at the top of his voice: "Now you see how it is yourself—l-f."

"And He Spoke unto Them in Parables."

My dear sisters, where were we in our conversation? We have been considering housework, more especially cooking, have we not, and thereby made quite a stir among ourselves? We have expressed some positive opinions and we have characterized the occupation as womanly and unwomanly, manly and unmanly. May it not be that we are separately wrong, combinedly right? Is not a glorious comradeship possible in the work of this world, and if things were rightly understood would one say to the other "that task is yours but this is mine" instead of "Both are ours." Is not this very inclination to keep far apart as to matter and manner of employment at the foundation of many misunderstandings, jealousies and disgraceful schemes that too often involve a tragedy.

As to whether or not a man should stand by the kitchen stove till his wife has baked enough cakes for both, or whether they cook for each other, or he cuts wood instead, let them settle that between themselves. Any division or co-operation may be pleasant or unpleasant, according to the animating spirit, the intention, and no less to the good judgment of the parties, which will decide that the one best qualified by nature and education should, whenever it is possible, take the appropriate part, but be also careful not to keep the attention so exclusively fixed in one direction as to become narrow-minded and bigoted. Man need not learn to consider woman a household scavenger, and woman need not think that marvelous cookery,

any more than marvelous language, is the only attraction she can offer.

I use that expression for the purpose of quarreling with it, for, in my estimation, no work is so degrading and should be considered so thoroughly unwomanly as a persistent effort to attract men merely because they are men, even by learning useful accomplishments. It is waste of time to talk of our fathers and grandfathers, and picture the "good and noble young man" of the present languishing for a fitting helpmeet, when a half-day on the street will convince any one with observing eyes that the lack is quite as often on the other side of the scale; nor is it so much of a lack, comparatively, in either case, as some would have us believe. Two oxen are yoked together; they may keep step, or one may pull while the other drags, but their heads cannot be more than the length of the yoke apart; neither can man and woman, though they strain at their bonds and glare at each other ever so viciously.

Have we reason to fear that a change in the program would "ruin the homes of the middle classes"? Are those homes perfection at the present time? Get yourself appointed Census Marshal, then watch the faces and treasure the words of the women of these middle classes. You may learn more than you expect, for the idea may come into your mind that something besides hatred of cooking is "in the air" of these stopping-places that are often no more truly homes in the country than in the city. There is rebellion against various forms of what was not always felt to be bondage, but because the call to the cook-stove sounds oftenest it is oftenest resisted and with good reason. If we lived simply to eat, could not eat until we cooked, and only women could learn to cook, our duty would be plain; but some of us deny all three of these propositions and defy the opposition to prove them. If there is any design in our existence, that design is not merely the consumption of provisions, although our physical life must be so sustained, and we need no such elaborate process of preparation as it has grown to be.

Our sister asks, "Why does not the mother do the teaching and hire the cooking done?" It seems to me that she does hire the cooking done when she can, sometimes because it is considered degrading, often because that added to other demands on her time and strength is more than she can do, and so she opens Pandora's box anew, and in the servant problem presents a greater puzzle than the famous 13, 14, 15.

Does not the mother teach? From before the first instant of unconscious life she imparts emotion, sentiment, thought, whether she wills it or not, and not alone the mother but the father also; yet she does not do the technical teaching, often because she dislikes that as much as cooking, and even if she tried it her method would be liable to be contradicted, certainly pronounced defective when the child was sent to school. Under our present competitive system, the whole commercial, mechanical, professional, social, even religious world demands a certain routine, uniformity of education in its candidates for positions that bring money, which is life or the means of life, and the one not up to the standard is left behind; so the mothers just going out of date, who have not learned all this, are considered incompetent.

Do you say it makes less difference to farmers? Think a minute; who makes a corner in wheat, perhaps just when seed is scarce? Who sinks the price of corn so low that it is cheaper to burn than send it to market, and who holds the sweetening of life in the hollow of his hand? Is it the honest farmer, the producer? Is he not poor, his farm mortgaged and his wife overburdened because he is helpless, because he does not know the tricks of trade, has outlived his time, you might say, so that his bent shoulders furnish support for the tramp who rides and the tramp who walks, the speculator and the sand-lot operator, both dependent on him but neither acknowledging it? This is a premium on dishonesty, reward for strategem, and on the other hand, fear of destitution for those lacking in the power to rise on another's fall. This greedy scramble can only be checked by change of motive in the aggregate of individuals, which must proceed from a modification of wants and needs.

Here comes the remedy in our sister's call for wiser mothers. It is high time we revised our demands of ourselves, making them no less but partly turning their current. If motherhood is, as so many declare, the natural and highest purpose of our being, the question should be not so often "Am I fit for that noble young man who is now meditating on my perfections and imperfections with a view to matrimony?" as "Am I fit for a mother of noble young men and women, and is that young man fit to be their father?"

Do you say we should spend two or four years in the study of the human organization? I tell you that when a lifetime has been thus spent, the little that is known is to the whole wonderful mystery as a drop to the ocean. We may soon learn to name bones, muscles, veins and nerves, but cannot imagine an eternity long enough for the mastery of the infinite number of complicated problems presented by what we have named the mind, the invisible spirit which makes use of these denser organs. Can we tell why the child of delicate parents may be well and strong while that of the healthy may be weak? Do we know why the conscientious mourn over dissolute sons and wayward daughters, while a divine child may come even

"out of Nazareth"? Are we able to explain the art of fixing a transient thought, an emotion in the constitution of the unborn, or of calling up and presenting to the world the long-forgotten echoes of qualities blessing or cursing past generations?

Yes, the school course includes anatomy, physiology and hygiene. So far, so good; but when and how, unless she enters a medical college and then but partially, can the girl learn what most concerns her—her personal responsibility to the future of our race? Has she not been taught by precept and example that in this matter ignorance is innocence and knowledge guilt; that she is to keep her inquisitive hands off this sacred ark of the Lord under penalty of instant death; that she is not to peer into the Holy of Holies; and has not the repressive power of the law been perverted from its proper use by those who fear that having tasted knowledge she may learn something of the Tree of Life? The fruit of the first was good, but not being followed by the second, has always brought misery. How? By stimulating unsatisfied craving for knowledge that forever stops short of the eternal wisdom which should have been its result, the soul's possession of that which it needs. Beside this awe-inspiring thought, in the dawning light of that day which shall show us our true position in the circle of creation, how small appears the human stomach, temporary its needs and easily learned its demands!

Mrs. Frank Leslie has been considering the qualities of the good wife and has decided that love is what she most needs because then all other things will be added, and there is much truth in the assertion so far as the two are concerned and in regard to the regular business of life. We have often, as she intimates, been astonished at the rapidity with which a girl learns the various arts of housekeeping when the effort is made for love's sake and compared with her slowness when attempting the work because she ought to; but all cannot be equally proficient any more than all men can be good farmers, and when the world knows more, such unreasonable results will not be expected.

Mrs. Leslie says: "No matter what hights the coming woman may attain, or what power she may yield, she will never get beyond that old, old axiom, the true creed of womanhood, 'The greatest thing in the world is love.' " Perhaps, but the quality of love has many divisions, and she seems to look at only one, which is that between man and woman. It is a self-sacrificing love, too, which accounts for the long, sad gaze she gives to womanhood when she says there is none happy, no not one. To be the good wife she describes, a woman must completely quench her individuality, be never imperative in her mood, but always subjunctive, must hold her own plans and wishes in so light a grasp that she can instantly relinquish them and take up another set originating in another will. She must learn to think very lightly of her own ideas and convictions and accept with delight and admiration those she has never dreamed of or has looked upon as quite erroneous, and she must be anxious to gain in sincerity, tact, docility, silence under provocation, patience, sweetness, energy and untiring determination to do and to be whatever will make the beloved one happy, and a holy hypocrisy in disguising all the disappointments, self-sacrifices and changes of purpose involved in giving up one's life to become the counterpart of another life.

I wonder how one is to reconcile sincerity and hypocrisy, even if it is named holy; and more than that, I wonder how many are willing to pay such a price for being called good wives, or if it would be possible to more than one in a million, or any real good accomplished in that one case, for chapters might be written on the effects of such unlimited self-quenching, for all extremes draw the nature out of the roundness of perfection and exaggerate themselves at the expense of other qualities.

Sister Margaret (and Margaret they say means a pearl), truly "the ground whereon thou standest is holy ground," and angels bend above offering the shining crown, the needed blessing of wisdom, but the weary toiler is often too intent on the raking of the earth for her lost treasure to look upward, too busy rattling her pots and pans to hear the heavenly call, and still the angels wait; yet not for always. Some day all will see, hear and perceive and learn to distinguish the means from the object of life.

Long before that, however, when another spare afternoon comes, we will get together again and talk over camping-time with Mrs. Hilton and kitchen conveniences with any one who wishes to pass through this trying transition time in the best, which includes the easiest manner possible to her.

## Hints for Parlor Elocution.

Commence by reading aloud. To do this well is in itself worth a good deal of effort, and you need never be without an audience. Read the paper to father in that half hour just before tea when he has come home "all tired out." Read to mother while she sews; she will be glad to hear anything good, and you will perhaps find in her what every young elocutionist needs—a just but kindly critic. And while you read, think. Be sure you are bringing out the author's thoughts correctly. If not quite satisfied with the way in which you have read a passage, put a mark on the margin, and when you reach the end go back and try it again till you ear



sure of it. In reading, the voice should be pitched moderately low, but every word should be enunciated distinctly. Unless you are on your feet while reading, sit well back in your chair and keep the back straight, which will enable you to breathe slowly and deeply. In reading and elocution, as in singing, it is important to take breath in such places and in such quantities that the voice will remain full and round until the sense is complete. No gasps must occur in the middle of a sentence, and there should be no hurrying toward the end because the breath is nearly out. As to where one should take breaths while reading there is no rule but the infallible rule of common sense; your hearers should never know just when you do it. Choose for public reading or speaking, pieces suited to your voice and ability. Many a young elocutionist has come to grief and failure merely on account of a mistaken ambition. It may be in your power to keep an audience rippling with laughter, when you would be a dismal failure as a portrayer of deep passion and high tragedy. It is far better to do simple things well than to sow disappointment for yourself by attempting selections to which you cannot do justice.—*Ladies' Home Journal*.

### Curiosity Aroused.

"Goin' fur, mister?"  
The question was asked by a long-nosed, thin-lipped man, with pointed chin-whiskers, a slouch hat, and a hungry expression of countenance. He was resting his elbows on the seat in front of him, which seat was occupied by a passenger in a gray check suit.

The passenger addressed turned partly around to look at his questioner, and sized him up at once.

"Yes, I am going to Nashville," he replied, "down in Tennessee. My business there is to sell four shares of bank stock, dispose of my interest in a farm of 80 acres, 10 miles from the city, and invest the proceeds in a clothing establishment on North Cherry street. I am from Beardstown, Ocas Co., Ill. I got on the train there at 9:35 this morning. It was 45 minutes behind time. My ticket cost me \$11.65. I shall take the sleeper when the sun goes down. Had my dinner about an hour ago. Paid 75 cents for it. This cigar cost me 10 cents. I have been a smoker for about 13 years. My name is Chauncey McConnell. I am 39 years old, have a wife and four children, came originally from Harrodsburg, Ky., and am a member of the Congregational church. I was formerly a druggist, but sold out to a man named Treadway, and I am not in any business now. I am worth perhaps \$10,000. My father was a cooper, and my grandfather was a sea captain. My wife's name was Carr before I married her. Her father was a surveyor. That's all I know about her family. We live in a two-story frame house, and the children have all had the mumps, chicken-pox and measles. When I reach Nashville I expect to stop at the Maxwell house."

He stopped. The long-nosed man regarded him a moment with interest, and then asked in a querulous, dissatisfied way:

"What did your great-grandfather do for a livin'?"—*Chicago Tribune*

### The Drunkard's Catechism.

Who is it that loaf at ease while you toil from morning till night?

The saloon-keeper.

Who is it that buys houses and lands and struts in fine clothes with the money which might have kept your family from being turned into the street, and from going in rags?

The saloon-keeper.

Who is it that takes your last cent for his poisonous drinks, and shuts the door in the face of your wife when she asks credit for a five-cent loaf of bread?

The saloon-keeper.

Who is it, when your money and reputation are gone, and you have no friend left to pay for your drink, will take you by the coat collar and kick you into the gutter?

The saloon-keeper.

Who is it that robs you of sense and reason, puts you lower than the beasts, drives you into jails and penitentiaries and sends you to the gallows?

The saloon-keeper.

Is he the man who lives by crushing human hearts? Yes; then throw his chain off your neck and shake his clutch from off your soul.—*Zion's Watchman*.

### Chaff.

If bops are so sedative, why don't frogs sleep better?

A CONUNDRUM—"What strikes a man's eye first when he meets a lady on a rainy day?"

"Her umbrella, of course."

"I kept a diary four years." "Wonderful!"

"And didn't write a line on one of the pages."

STATESMEN are the only people who are permitted to pass bad bills.

"Have you ever heard Fagely tell any of his true bear stories?" "I've heard him tell stories, but I should call them by another name." "What?" "Barely true stories."

SCENE IN AN OMNIBUS—Thin man (vainly endeavoring to wedge his body on to a seat): This 'hns ought to charge by weight. Stout woman (contemptuously): If it did it would never stop to pick you up.

## YOUNG FOLKS' COLUMN.

### Where's My Baby?

"Where's my baby? Where's my baby?"

But a little while ago,  
In my arms I held one fondly.  
And a robe of lengthened flow  
Covered little knees so dimpled,  
And each pink and chubby toe.

"Where's my baby? I remember

Now about the shoes so red,  
Peeping from the shortened dresses,  
And the bright curls on his head;  
Of the little teeth so pearly,  
And the first sweet words he said.

"Where's my baby? Ask that urchin,

Let me hear what he will say;  
'Where's your baby, ma?' he questioned,  
With a roguish look and way;  
'Guess he's grown to be a boy now,  
Big enough to work and play.'

### The Minister That Dolly Liked.

[Written for the RURAL PRESS by MARY E. BARNFORD.]

It was a queer place to stay in over night. There were tall tule reeds and wide lagoons of water, and there was a fire. The tule reeds and the lagoons were usually by the Sacramento, but the fire was not.

Dolly had walked around the fire for awhile, the first of the evening. She wished she had something with her to read, but the books had been packed, and the only thing she could find was a little black book, the cover of which was continually threatening to come off. The book was something about "Moral Evidences." It was in fine print and little Dolly could make nothing of it. She wished she had brought her blue-covered fairy-book about "The Great Rosy Diamond."

The family had been traveling all day. One lagoon had just been crossed. Dolly and little Lida and their mother had been taken across in a rowboat, but the carriage and the two horses had been driven around a side way, and the father had been almost drowned trying to do it, too. The man who had rowed them across the lagoon had said that there was a raft that would bear them over the next one, but when they came to the next and found the raft, they did not believe it would bear up the carriage. The raft began to sink, and Mr. Henderson drove on land again in a hurry.

It was almost night, and not knowing the way out from among these tule reeds and lagoons along the Sacramento, being afraid the whole family would be drowned if he tried any more experiments in the uncertain light, he decided to stay where they were till morning. Dolly always supposed that they had something to eat for supper. She never could remember afterward anything about supper. She only remembered the mosquitoes.

Dolly did not mind being in the tules till the mosquitoes found out that folks were there. One by one the mosquitoes came at first. Then they came by dozens, by hundreds, till there was a loud buzzing noise that filled the air continuously like the sound of the swarming of a hive of bees. Above the two live oaks, between which the fire was built, hummed and buzzed clouds of mosquitoes. There were thousands of them. They blackened the space around the treetops. They filled the air. They bit, they settled in dozens on Dolly and Lida and their father and mother. Mrs. Henderson tied thick blue veils around the children's faces, and wrapping Dolly and Lida in shawls, put one of the little folks on the floor of the carriage and the other on the back seat. But the mosquitoes would bite. They crept under the shawls and the veils till Dolly and Lida groaned and sighed in their sleep.

Through the night the father and mother walked around the fire, fighting mosquitoes. Once Mrs. Henderson climbed on the front seat and tried to sleep, but it was impossible.

"Oh dear me!" sobbed Dolly from her place in the bottom of the carriage. "Oh, o-ooh!"

The mosquitoes were trying to bite through wherever the blue veil touched her nose or cheeks. There were mosquitoes biting through her stockings and mosquitoes bad crept under the shawl and were biting her hands and wrists and neck.

"Oh, o-ooh!" she sobbed.

Morning came at last and the mosquito-bitten family found the way out of the tules and drove toward the southeast. Somewhere in the foothills the four were to find a home.

It was a little mining town where they stopped at last. Dolly's father was a doctor and she used to go riding with him over the hills past the buckeye trees to see a family where there were six boys. One of the boys was near Dolly's age—perhaps a few years older—and he took her out to the front gate and taught her to eat green peas out of their pods. Dolly had never thought of doing such a thing before. She did not exactly know whether she liked eating peas that way or not, but she liked the boy.

All the ministers in town came to see Dolly's folks. One was a very prim, particular minister who wore a stovepipe hat. One day when the minister called at the house, Dolly was commanded to get him some apples.

It was a great trial to Dolly to be always washing apples for visitors, and she unluckily

thought that this time it would not matter if she did not wash the apples and put them on a plate. She would take a number in her apron instead.

She took some from a bin in the cellar and went upstairs. In the sitting-room, with his back toward the two glass doors that opened on the piazza, sat the minister, talking busily with her father and mother. Dolly marched up to the minister.

"Here," she said, holding out her apron.

The prim, particular minister looked at the dirty, streaked apron in the calico apron.

"No, I thank you," he said.

"Why, Dolly, you ought to have washed them!" exclaimed her mother; but Dolly turned and fled weeping from the room.

She rushed across the hall into the dining-room and let all the apples fall. She did not care what became of them. She wept at the top of her voice.

Her mother came hastening out to her and shut the door into the hall.

"I'm ashamed of you," she said. "Why didn't you wash those apples? He's such a particular man."

But Dolly wept on.

There was another minister who came to see the family. He was a black-eyed minister, and one day he brought a young woman with him. He had recently married her and she was very pretty. Dolly thought she was rather silly, though, because of what happened when she and her husband were going away, and he was standing talking with the doctor and his wife. The minister's bride stood on the walk leading to the levee. There were rose bushes beside the walk. They were all in bloom, and the young bride picked a pink rose and held it close to her cheek. She smiled at Dolly who stood earnestly beholding her.

"Isn't my cheek just the color of the rose?" the minister's wife asked.

Dolly looked.

"No it ain't," she said bluntly.

Dolly did not take into consideration the fact that the young bride had been used to pretty speeches from her husband and rather expected the whole world to be of his opinion concerning her. Dolly was only giving her honest conviction. She knew that the rose was pinker than that woman's cheek.

The young bride laughed, and just then her husband finished talking, and together he and she went up the steps of the levee and down the other side and out into the street under the locust trees.

Dolly ran along on top of the levee before the couple till she reached the corner near the black cherry tree where she got the sour cherries for Lida the time she had the fever. There Dolly stopped and waited till the minister and his wife came up below by the irrigation ditch.

The bride looked up and smiled at the light-haired, blue-eyed little girl standing there looking over the fence. The young wife felt very happy with her hand within her husband's arm.

"When are you going to get married?" asked the bride of Dolly.

Dolly gazed from her right on the devoted couple below.

"I ain't ever going to," she said.

She thought that was a silly question. Her mother had always told her that it was silly for little girls to be talking about getting married.

The pretty bride laughed and went on very happily with her husband. Dolly watched them out of sight. She had never seen two people in that frame of mind before.

There was a third minister, the one who preached in the church on the hill over beyond where all the yellow wild pansies with black hearts grew. Dolly and Lida found a whole hillside there covered with those pansies one spring. The minister was an old man with a beard that was almost white. Dolly did not know why she loved him so. He was not as fine as the apple-minister, and he did not have a pretty wife going around calling with him like the other minister; but Dolly worshiped this third minister with all her little heart. She thought, in after years, that it must have been because he was so kind to children, and yet she could not remember ever having had him take notice of her. Most likely he had, however.

She used to plod, Sunday after Sunday, along the streets, past the mill and the house of the girl who ate radishes right out of the ground, past the tinner's house, past the church where the apple-minister preached, stepping over the brook that ran under the live oak tree at the foot of the hill, climbing up and on by the house where the girl lived who ran up the hill into the shoemaker's and hid with her the time a Spaniard rode by on horseback.

There were two rooms that the shoemaker used. Dolly had run alone into the front room and looked out the window at the inoffensive Spaniard as he rode slowly by unaware of the commotion. The girl had told Dolly that they must always run when they saw a Spaniard, because maybe he might kill them.

Dolly waited till the man had disappeared and not a glimpse of him could be seen through the church. Then Dolly, who was given to dramatic expressions at times, picked her way out among the boxes and said, loud enough so that the shoemaker in the next room might have heard, "Thank God the danger is over!"

Then she went into the next room. The shoemaker looked at her but did not say anything. Perhaps he had heard her, perhaps not. Dolly went outdoors.

Beyond the shoemaker's house and all the

houses was the little church where the minister that Dolly liked preached. Dolly did not remember anything he said. She only knew that they all sat there in the pew and listened.

And then there came a time when people said that Dolly's old minister was going away. His folks in the East wanted him to come home. He was feeble and could not preach much more in the little hill town.

Dolly felt very badly. The old minister came to her house one day, and after dinner Dolly followed her father and the minister out to the levee and stood on the top beside the steps.

Her father and the minister were a little distance off, talking in low tones. Pretty soon her father put his hand into his pocket and drew out some money and gave it to the minister. Dolly felt as if she could cry aloud. He was her minister, her minister, and he was going away! But the minister did not know how the child's heart was grieving. He kept on talking very earnestly with her father, and by-and-by went away, down the levee steps.

Next day was Sunday and Dolly and her father went to the church on the hill. Her mother stayed at home with little Lida.

"I won't go," said her mother; "it's his last sermon, and I know Dolly'll cry and everybody'll cry. I don't want to cry, too, and I know I can't help it if I go."

Everybody did cry. Everybody was there, even the woman who lived in the country and had the two long rows of hollyhocks before her house. Everybody was sorry to have the gentle old minister go away. Dolly sobbed out loud, but the minister could not know how she felt. He was too busy saying his last words to his people. He did not know that Dolly would never forget him; never, even though she should live to be an old woman.

He went away from the little foothill town, and after a while Dolly's father had a letter saying that the minister had reached his folks in the East. By-and-by there came more news—the minister that Dolly liked had gone to a better country, even a heavenly.

## DOMESTIC ECONOMY.

FAMILY PLUM PUDDING.—One-half pound beef suet, one-half pound currants, one-half pound raisins, three eggs, half a nutmeg, bread and flour to mix. Boil for the usual time and serve hot.

BEEF TEA.—One pound of lean beef cut into small bits, with every particle of fat removed. Put in a wide-mouthed bottle, cork tightly, and set in a kettle of cold water. Boil three hours. There will be a small cupful of the juice; season with a salt spoonful of salt and give a few spoonfuls at a time.

SPANISH BUNS.—One cup brown sugar, one-half cup molasses, one-half cup sour milk, four tablespoons melted butter, one egg and yolks of two (save the whites of two for frosting), one teaspoon soda, one and one-half cups of flour, one tablespoon cinnamon, the same of cloves if desired. Use brown sugar for the frosting, stirring until quite white.

COCOANUT CAKE.—One pound of sugar, half a pound of butter, three-quarters of a pound of flour, the juice and a little of the grated peel of a lemon, six eggs, one cup of sweet cream in which half a teaspoonful of soda has been dissolved, and one grated cocoanut. Add the lemon juice last of all, except the flour and cocoanut, which must be added alternately till all is mixed in.

NICE CAKE.—Beat one-half pound of butter to a cream, add to it, by degrees, one-half pound of powdered loaf sugar and one pound of flour; when these are well mixed, add four eggs well beaten, yolks and whites separately, and half a pint of sweet milk; beat all well together, flavor with a few drops of essence of ratifia, and bake in a buttered mold in a moderate oven for an hour.

COCOANUT COOKIES.—One cup sugar, one cup butter, one-half cup milk, two eggs, one cup desiccated cocoanut, one teaspoon baking powder sifted in flour enough to roll, not too stiff. No. 2.—One cup of butter, two cups of sugar, one cup of milk, four eggs, one teaspoon soda, six cups of flour; roll out, sprinkle thick with cocoanut, then roll lightly to press the cocoanut into the dough; cut in any shape desired.

PUMPKIN CUSTARD.—Cut a pumpkin into inch square pieces, stew slowly until thoroughly cooked, then press through a colander or sieve. To every pint of pumpkin add a piece of butter about twice the size of a walnut, half a teaspoonful of salt (scant), one pint of good milk, half a teaspoon each of mace and cinnamon, one teaspoon of ginger, one cup of sugar, and four well-beaten eggs. Bake in a pudding-dish, without crust, or in pie-tins with a light crust.

SQUASH PIE.—Whether squash or pumpkin is used, they should be steamed, as this makes them much drier. Strain while hot through a sieve. To a quart of the strained squash, add one quart of hot milk with a spoonful or two of cream, if possible. A heaping cup of sugar, into which has been stirred a teaspoonful of salt, a heaping one of ginger and half a one of cinnamon; mix this with the squash, and add from two to four well-beaten eggs. Bake in deep plates lined with a plain pie crust. They are done when a knife-blade on being run into the middle comes out clean. About 45 minutes will be enough for pumpkin pie; half a cup of molasses may be added.





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W. B. EWER.

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## Business Announcements.

[NEW THIS ISSUE.]

Plows and Harrows—Deere Implement Co.  
Harrows—Baker & Hamilton.  
Olive Ranch For Sale—A. H. Agard, Oakland.  
Groceries, Etc.—Smith's Cash Store.  
Spray Pumps—R. S. Chapman.  
Nursery Stock—James Hutchinson, Oakland.  
Live-Stock Sale—Kilip & Co.  
Seeds—James Vick, Rochester, N. Y.  
Seeds—F. Barteldes & Co., Lawrence, Kan.  
Lands—Chas. B. Lamborn, St. Paul, Minn.  
Trees, Plants, Etc.—Keller's Nurseries, Oakland.  
Ranch for Sale—O. C. Logan, Oakland.  
French Prunes—D. B. Derby, Vacaville.  
Poultry—Madison H. Critcher, Bonnie Doon.  
Nursery Stock—E. Gill, Oakland.

See Advertising Columns.

## The Week.

Local affairs are proceeding quietly. The heavy work of the winter is well along. Owing to the fine weather, seeding, planting, pruning and cultivation of orchard and vineyard are more advanced than they often are by the end of February. The result is that farmers are reducing their extra forces of hands, and many laborers are no doubt obliged to seek new fields. The host of winter visitors and residents is large, but not excessive, and all are easily accommodated.

There are several excursions still to arrive, including a special group of Boston fruit merchants, which will arrive about the middle of the month. The Legislature is busy talking, and judging by recent debates, a considerable appropriation for the World's Fair seems likely to be made, though fortunately not the extravagant amount which was first talked of.

ORANGE STOCK FROM THE PACIFIC ISLANDS. The latest novelty in the orange business is the charter of the schooner Lena Sweasy, 244

tons, by a Pasadena horticulturist to bring a cargo of orange trees from Tahiti. This is a new source of supply and the experiment will be watched with interest.

## The Weather.

The weather still rules as the absorbing topic, and it is, in fact, dry enough to absorb anything so fluid as the popular mind. There have been rains over quite wide areas, which have answered for surface wetting and to maintain public confidence; and, if one can forget the dairy and stockmen who are forced to proceed with their production on the scantiest pastures, it may be said that nothing is suffering yet. The ground is in the finest working condition, the grain is growing slowly and presumably rooting well, the trees are not troubled, unless it be that the olives on old trees have shown a disposition to shrivel. All are building on the fact that we have sometimes had a dozen inches in February and March, and therefore there is plenty of time yet for plenty of rain. We enjoy this comfort, too, and expect some such thing; but still it is well enough not to lose sight of the fact that we have had the driest January since the very earliest days. Lieut. Finley of the Signal Service, in his monthly memorandum for the press, gives this interesting review:

The rainfall has been deficient in all districts, especially in Northern California, Western Oregon and Western Washington. The deficiency ranges from 0.25 inches at Keeler to 7.78 inches at Eureka, 4.57 inches at Red Bluff, and 4.08 inches at San Francisco. The rainfall at San Francisco has not been so small since 1852, when the amount reported was 0.58 inches. In 1851 the amount was 0.72 inches. The rainfall for January, 1891, is 0.98 inches. In January, 1862, there was recorded 24.36 inches—the heaviest rainfall ever reported for San Francisco.

It is consoling to turn from this and January to thoughts of what often happens even with such a month behind us. Mr. J. W. Potts, who has the best kind of indorsement for a prophet in that he enjoys the exceptional distinction of being honored in his own country, writes, to the Los Angeles Times as follows:

I find an article in my scrap-book, written for one of our daily papers by me, dated Jan. 24, 1884, in which I tried to show by statistics that we had no reason to fear a dry season, even when but little rain had fallen before the 1st of February, by giving the rainfall before and after the 1st of February for 13 out of 39 years as follows:

Year.	Before Feb. 1.	After Feb. 1.
1850-1851.....	.650	4.050
1853-1854.....	5.295	14.710
1854-1855.....	5.411	13.121
1856-1857.....	4.617	5.382
1859-1860.....	10.654	11.972
1862-1863.....	4.420	7.159
1868-1869.....	8.176	8.478
1869-1870.....	6.303	7.292
1870-1871.....	3.650	4.820
1877-1878.....	12.712	13.737
1878-1879.....	5.335	10.937
1879-1880.....	7.202	19.478
1881-1882.....	7.603	8.617

I find also, by my diary, that up to the 27th of January, 1884, it had only rained about four inches, but on that day, the 27th, it commenced to rain and rained during the month of February 13.37 inches, and up to March 30th it had rained 38.59 inches for the season, making over 34 inches after the 27th of January. So it will be seen by these figures that it is no use to croak about a dry season until after February has passed.

Thus it appears that we have nearly a whole month left in which to hope, if we don't have to climb up on high ground before that time to get out of the wet.

It is also well to keep in mind the fact so clearly shown in the RURAL last summer by figures furnished by Mr. Montpellier, that it is the late spring rains which insure a good wheat crop, providing that the winter dispensation is enough to keep the plant growing along well until—say, the end of March. It is much better to have slow growth and a yellowing now than to have the pinch come after the plant has made a strong growth and has not water enough to fill out the head plumply. There is a vast area of grain sown—perhaps never more than this year. It has been well put in and it is doing well. It needs much less water this year to reach down to damp soil below than it does after a series of dry years. Consequently, if there is the amount of rain which we may fairly expect during the next two months, we shall come out all right with as large a crop as the world has any use for. Therefore, do not repine. Enjoy the fine weather; slick up the place; plant trees, and keep up courage.

## Fruit Trade Organizations.

There is usually during the winter a disposition among those enlisted on the commercial side of the fruit interest to come together to resolve and to combine for mutual advantage. Very often the articles of agreement most carefully drawn in the winter are melted down by the hot sun when the buyers are rushing about the orchards in the early summer, trying to secure for their employers the fruit which they stand most in need of. It is right enough for buyers to associate and to advance their business by the teachings of their experience, but they are disposed while so doing to draw the lines too tightly on their side of the business and thus visit hardship to the grower. This is not really to the interest of anybody, and, as we have said, such agreements are usually short-lived.

This winter brings out rather more than the usual disposition to coalesce. We have the orange-buyers adopting agreements and rules for grading, which the growers repudiate with feeling, and the result to be expected is a meling down of buyers' requirements or else a large volume of the business will be transacted by the growers on their own account.

Another act toward combination is the union of the San Jose fruit-shippers and purchasing fruit-driers in adopting grades and forms of contract, which we publish on another page of this issue. These matters pertain to the summer fruits, and there is plenty of time to study out the probable effect of the propositions and for the growers to act in their own interest concerning them.

The greatest of all the combines which has been much talked of but which is not yet accomplished, is the combination and capitalization of all the canneries under a single name and management. Judging by the past, there is little need to expect much endurance to such an arrangement, if indeed it secures an adequate basis for beginning. It will be hard to get thirty or more establishments to merge their identity and interests and be content to lose the individual advantages they have been years working for. Even if this is done, it may be harder still to operate a machine composed of such factors to the satisfaction of all. At present we do not anticipate much good or evil from the proposition. It may be necessary to give it more attention later.

## The State Board of Horticulture.

The fruit-growers of the State, so far as we have seen expressions of their view, are desirous that the Legislature, in its alleged disposition to unseat the various State Commissioners, shall not do anything to curtail the operations of the State Board of Horticulture. The following action was taken at the meeting of the State Horticultural Society last week:

WHEREAS, The State Horticultural Society is a private association of California fruit-growers which has been in continuous existence since its organization in 1879, and is therefore the oldest society of its kind in the State, and in its membership is representative of the fruit interest of the whole State; and

Whereas, The State Horticultural Society does not receive and has never received any aid from the treasury of the State, and is therefore wholly disinterested in its sentiments and actions; therefore be it

Resolved, That the State Horticultural Society does hereby formally declare its appreciation of the public service rendered by the California State Board of Horticulture and its officers, in its valuable reports and other publications and in the large public assemblages of fruit-growers held under its auspices in different parts of the State, and in its energetic work in dissemination of knowledge concerning the pests and diseases of fruit trees, and untiring efforts to carry into execution existing laws for the suppression of such evils which threaten the vast fruit interests of the State.

Resolved, That the State Horticultural Society most respectfully petitions the Honorable, the Legislature of the State of California, that the appropriation for the work of the State Board of Horticulture be continued during the next two years and that amendments to existing laws for the suppression of insects and pests be enacted to the end that such laws may be rendered still more useful and effective.

Resolved, That copies of these resolutions be transmitted to members of the State Horticultural Society now in the Senate and Assembly for submission by them to the honorable bodies of which they form a part.

This action serves another purpose than that primarily intended, in that it states clearly that the State Horticultural Society is not the State Board of Horticulture. There seems to be some confusion in the public mind on this point.

## QUERIES AND REPLIES.

## A Pest in the Hopyard.

EDITORS PRESS:—I believe California is the only State in the Union, or country, so far as known, that is comparatively free from the destructive enemies to the hopvine when in a growing condition.

In two cases I have seen a slight attack of the red spider, and in both cases the yards were located or surrounded by cottonwood trees, which I believe to be a protector and propagator of the spider.

Whenever the spider appears before the hops are ready to gather, the hopvine should be cut down and burned at once. If any appear during picking, all such vines should be burned immediately.

We have a worm that seriously affects the growth and quantity of hops per acre. This worm is on the grub order, white, and about three inches long, from three to five-eighths of an inch in diameter, red head and powerful hook like horizontal jaws.

It moves by the contraction and expansion of a series of rings resembling the rattles of a rattlesnake 10 or 12 years old.

It never is seen on the surface except it is brought up on a hop-pole or hoproot, where it has been playing destruction to the owner.

It can turn around in the hole it bores; but that seems but little use to it, as it fills the hole in the rear with its borings.

It will not bore a dry, hard or a green pole, but waits until the pole is a little old or begins to decay.

At picking-time a large per cent of the poles are broken off instead of pulled up, and the stump left in the ground makes a fine field for the worm to propagate for another year.

At pruning-time all of these stumps should be pulled up and destroyed by burning to kill the worms. When a supply of stumps in the ground seems to be short, the worm forages on the hop root and strikes the most vital part—the heart—and eats away until it is killed or bears a very indifferent crop of hops.

The only way that I know of killing these worms is by pulling up the broken poles and by plowing out the roots every five or six years.

If any hop-grower in the State has these worms, and has a better way of getting rid of them, I would like to hear from him.

As it is about planting-time, and to those contemplating planting hops, would it not be well to not plant any roots unless you know positively that they came from a section that had no disease among their roots or hops?

Hops were badly affected in Oregon and Washington this last year, and it stands us well in hand to take every precaution to keep these intruders from our midst.

Sacramento.

DANIEL FLINT.

Mr. Flint has probably found the boring larva of a large beetle, most likely *Prionus Californicus*, which is very abundant and generally found in such situations as he describes, and in old logs, decaying tree stumps, etc. Occasionally they are found in trunks of fruit trees and in vine stumps. The larvae require two or more years to complete their growth. The perfect form is a large, dark-red or reddish-brown beetle, sometimes an inch and a half long, and bearing long horns or antennae deeply serrated, and are found crawling over the ground at dusk or later. The eggs are laid by this beetle upon the decaying wood which forms the home of the larva.

A SPEECH FOR FREE BAGS.—It is telegraphed from Washington that Representative Biggs appeared before the Committee on Ways and Means in advocacy of his bill to place on the free list bags for grain made of burlaps. There was a good attendance of the committee. Biggs took great pains to convey to the committee an adequate idea of the needs of California farmers and the great benefit that would accrue to them by having the duty removed upon their burlap grain-bags. Biggs delivered a strong argument, and the committee seemed to be impressed with its logic, but it is doubtful whether they can be induced to report the bill favorably, although Mr. Biggs feels hopeful that this will be the result.

HOP-GROWERS.—At a meeting of the State Hop-Growers' Association last week in Sacramento, a bill now before the Legislature providing that the legal rate of fare on hops should be two per cent for each 100 pounds received the sanction of the association after quite a protracted discussion. The convention also agreed to labor for the passage of a law already introduced relating to the adulteration of malt liquors. Messrs. Flint, Camp and Lovell were appointed a committee to take charge of the bills for legislative action. A resolution asking the Legislature to pass an Act to prevent the importation into California of diseased hop roots from other States was carried.



## The Bear Valley Arch Dam.

In 1883 work was commenced on the Bear Valley arch dam, in San Bernardino county, and the reservoir formed by the completed structure was filled in April, 1886. The profile adopted is so thin that the dam cannot resist the thrust of the water by its weight, and it owes, therefore, its stability solely to the curved form of its base, which enables the wall to act as an arch. The dam was founded entirely on rock, and was built of cut granite laid in Portland cement mortar. Its plan is curved, the radius of the down-stream face being 300 feet. The length of the dam on top is about 450 feet. The front face of the wall is vertical and the back face battered.

There is only one other dam of this character in the world, and that is the Zola dam, built to form a reservoir for supplying the city of Aix, France, with water. The dam is built of rubble masonry and circular in plan, the radius at the crown being 158 feet. This dam is unable to resist the thrust of water by its weight alone, and owes its stability solely to its acting as a horizontal arch abutting against the sides of the valley. The Zola dam was built in 1843 and is still standing.

The Bear valley arch dam was designed by Frank E. Brown, C. E., and has attracted great attention from engineers by reason of its peculiar shape and the lightness of construction. It was at first generally condemned as being too light for the purpose, but is now recognized as a piece of bold but successful engineering.

The granite from which the dam was built was quarried near by and roughly squared by a hammer. For the most part these blocks weigh less than one ton each, there being a few larger ones near the base. The blocks were laid in a bed of mortar composed of one part Portland cement to three parts of sharp sand. Their ends were placed from one to three inches apart, and the space was filled with broken stone and mortar thoroughly rammed.

The courses are very irregular, or rather there are no courses, the design being to have the works thoroughly bonded in all directions with no continuous seams.

There is but one outlet, which is located near the bottom of the dam, and it consists of an arched opening passing through and closed on the inside by a single cast-iron slide working in brass ways.

The waste weir is located at one side of the solid rock. For allaying the fears of the people in the valley below, a recommendation was made by Prof. Geo. Davidson of this city, to cut the waste weir down at least ten feet below its original level, which was done.

The engravings given herewith (for the use of which we are indebted to Mr. L. M. Holt of the Orange Belt) show the general features of the Bear valley dam, with many of its details. Mr. J. S. Black, the assistant to Mr. Brown, writes thus concerning the strength of the dam:

"As there is no known instance in which a similar structure has ever been constructed, or even attempted, in which the strains approach to one-half this amount (referring to the 'strain-

sheet' submitted by him), the question arises, Is the dam safe? To engineers this is an important question, apart from any consideration of damage that might result from a rupture, because of the effect an affirmative answer would have on all future practice in the construction of great dams. Probably many engineers will answer in the negative; it is easy and safe to do so, and the person so answering has the cheap satisfaction of knowing he can always insist that he is right until some one builds a dam in which the strains are greater.

"While I would hesitate to recommend the construction of its counterpart under anything less than the pressing necessity under which this was built (when there was only so much money to be had, and it was a question of dam or no dam), yet I share the opinion of Mr. Brown, the designing engineer, in believing it to be safe under all normal conditions, and in case of an earthquake, somewhat safer than a straight gravity dam with a factor of two against overturning.

"In support of this opinion I submit the following facts:

"First—and above all—the dam is there, and has stood there for seven years under every conceivable natural strain except earthquake, and as yet a close inspection shows no sign of weakness in any part. The waste weir has been dammed up and the water has been raised to a depth of 44 feet above the top of the foundation. During storms, large waves have washed over the top and fallen 60 feet to the rocks below. Ice has been formed every winter to a thickness of over three feet, with a conformation of channel above the dam that would seem designed to make the ice pressure peculiarly trying; and lastly, 14 feet of snow has lain upon the ice at one time, and yet, as far as can be judged by appearances, the dam is in as good a condition as when it was first built.

"Second—The strains are all comprehensive, and, by reason of the very 'unknown internal strains,' which the engineers of the Quaker Bridge dam feared to induce by throwing their dam into the curved form, every particular cubic foot of the mass, except one immediately on the convex face, will be found to be pressed

on all six faces instead of two, a condition which will greatly add to its strength. If pressed equally on all six faces, such a cube would be in the condition of rocks under great mountains, and would practically be indestructible by any pressure however great."

Such in brief is the history and features of the Bear Valley dam as now existing. It is now proposed to build a new dam capable of retaining a much greater volume of water, and in this is involved an important movement in developing the lands to be irrigated. But of this undertaking we will have more to say at another time.

THE SEALSKIN BUFFALO, made by crossing polled Aberdeen cattle on the wild stock, is said to have a fine, glossy fur, as beautiful as that of the seal, and much thicker. The hump on the buffalo almost entirely disappears on this cross, and with it the shaggy mane for which buffaloes have always been noted. There are now twelve of these seal buffaloes, and the cross promises to become a successful and valuable breed. They lose their wild traits and become as easily domesticated as are our common cattle under like circumstances. The Hudson's Bay Fur Company is giving up business because furs are no longer to be had, and the sealskin buffalo, many of which show fur marked like a tiger, will doubtless become a valuable product in northern climes, where the winters are too cold for the common breeds of cattle to succeed. The above crossing will no doubt yield a greatly improved fur—if fur it can be called—but it will probably be a long time before it is recognized as a "sealskin."

ONE-CENT POSTAGE.—A contemporary says: A good deal is said of the advantages that would result to poor people by reducing letter postage to one cent. It appears to us that the advantage is more apparent than it would be real. The great bulk of letters that go through the mails are from business houses. While plain John Smith would perhaps save 50 cents a year, his employers might save \$200. It appears to us that, if the Government gets too much revenue from its postal service, it would be better to improve that service, charging two cents for carrying a letter, at least for some years to come.

EXPENSIVE DOG FLESH.—A Pittsburg dispatch of Jan. 221 says that Count Noble, the famous English setter, by Nora and Count Windom, is dead. His owner, B. F. Wilson, had several times been offered \$10,000 for him. The next most precious bit of dog flesh, which has recently been announced, is about leaving England for America. The noble animal is the St. Bernard, Sir Belvidere, sold by T. H. Green to E. B. Sears of Boston for \$6500. This dog has not as yet left a prize untaken.

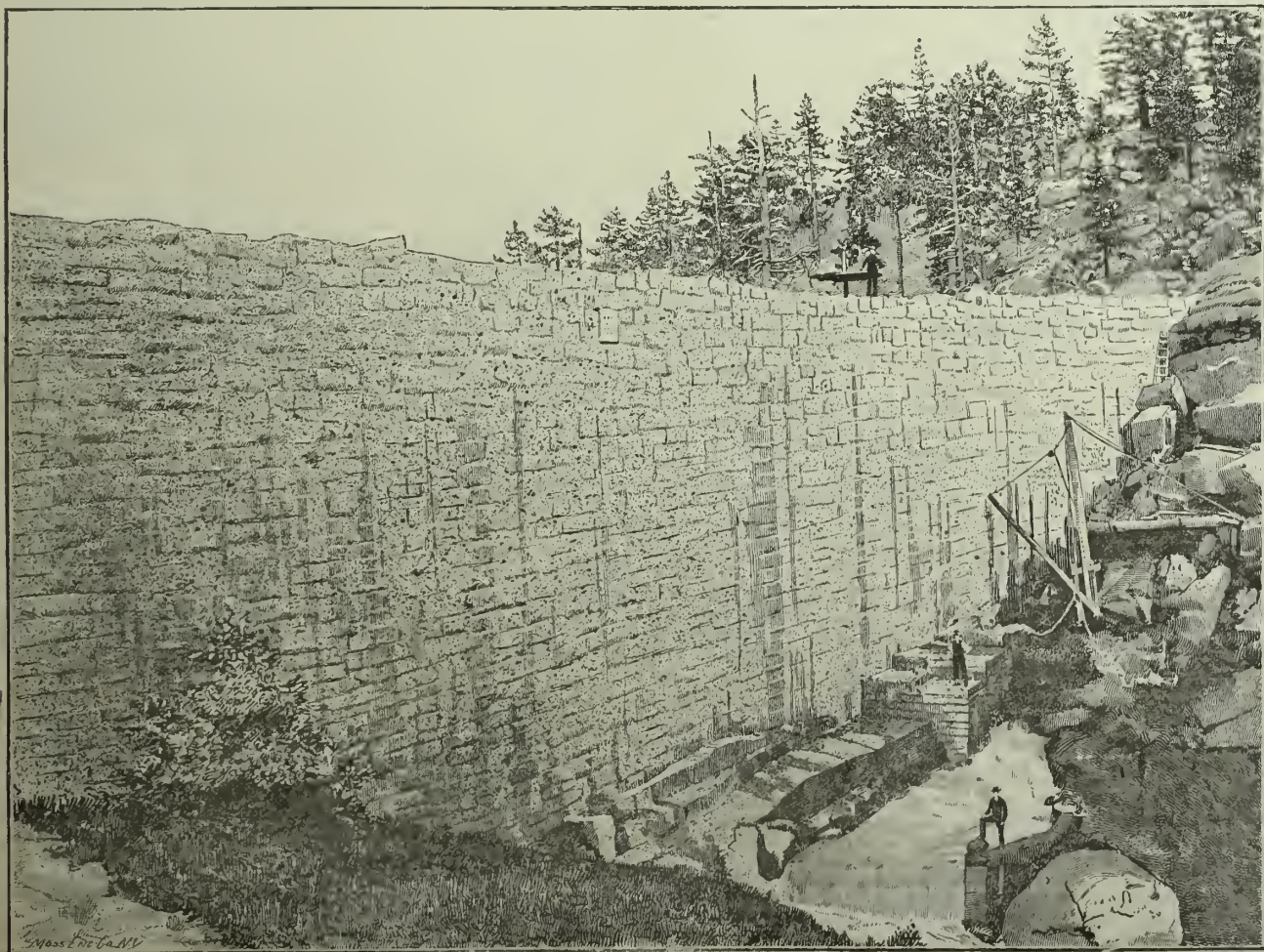
THE LARGE FISHING BANK recently discovered in the Pacific ocean, a short distance off shore from Point Loma, San Diego, is proving of great value. Some fine catches of whitefish and rock ood have recently been made here.

IT REQUIRES about three seconds to transmit an electrical signal through the Atlantic cable.

SWEDEN has a machine that makes 1,000,000 boxes of matches daily.



THE BEAR VALLEY DAM FROM ABOVE.



THE BEAR VALLEY DAM FROM BELOW.



# AGRICULTURAL NOTES.

## CALIFORNIA.

### Butte.

**THE COMING INDUSTRY.**—*Chico Chronicle-Record*, Jan. 30: Ex-Assessor Wilson, who made a trip to Gridley a short time ago, said he was thoroughly surprised. Orchards are being planted there that are larger than Gen. Bidwell's. Besides these, numerous other smaller orchards are being set out, while there are many which will bear a good crop the coming season. The country around Biggs is also being rapidly changed, and hundreds and even thousands of acres are being devoted to fruit trees of various kinds. That section surrounding Oroville has been written about more than the two places just named, but nevertheless it will do no harm to state that thousands of acres are being transformed into fruit land, and citrus and deciduous fruit trees will occupy it in future. Residents around Chico, as well as various other sections of the county, have made long strides in this direction. When this large acreage is added to that already planted, it will be seen that the coming industry will be fruit-raising. It is rapidly displacing wheat, and that important cereal will not figure so prominently in Butte county in the future as it has in the past.

**MORE OLIVES.**—*Palermo Progress*, Jan. 30: The lands west of Palermo are fast becoming a center of olive plantations. Mr. Gillett has this week commenced staking preparatory to planting 100 acres with this noble tree. Mr. Unl of Oakland, who owns 50 odd acres north and south of the county road, has made a purchase of a fine lot of Navadillo, and intends to plant the same. Mr. Franke has made an additional planting, and also replaced the ones injured last season by the "boppers." He has now on his place six varieties, viz.: Redding Picholine, the Mission, the Navadillo Blanco, the Columella, the Rubra and the Manzanillo. The last variety he thinks will be the favorite. Jasper Brown has decided to plant 20 acres in Mission olives and 10 acres in budded oranges.

**MONEY IN SHEEP.**—*Oroville Register*: There is nothing raised upon a farm at the present time that will command a better price than mutton sheep. A few years ago sheep were a drug in the market and now they are at the top notch. The ranges have been cut up, the vast fields have been converted into farms and orchards, and now that sheep are at a high figure, men cannot rush into the business as they did on several occasions in the past, and overstock the State with sheep. There is money in sheep for the careful farmer, but he must buy good stock in the summer season, when they are lower than at present, must feed them well, not overstock his pasture, and only keep what he can handle to advantage.

### Colusa.

**FRUIT PLANTING.**—*Colusa Sun*, Jan. 30: Hon. John Boggs has laid out 400 acres near his residence to be planted to fruit, 100 acres of which is now being planted.

**FLOATING IRRIGATION.**—*Colusa Sun*: J. R. Farls will soon commence the erection of a large scow, upon which he will place a 12-inch rotary pump which he can move up and down the river and irrigate near-by lands. This, we believe, is a good scheme. We want the people to learn the value of irrigation on the river lands.

**RAIN AND CROPS.**—*Maxwell Mercury*, Jan. 31: In 1889 there was a good crop of cereals in this section and the amount of rain that produced it was 16.72 inches, according to J. F. Durban & Co.'s gauge. In December, 1888, the rainfall was 3.74 inches, January, 1889, .51 inches, February, .55, March, 5.04, April, .22 and May, 1.44, making 7.25 inches after the first of February. The previous year, 1887-8, only 9.06 inches of rain fell. From the above record we still have hope of getting seven inches of rain this spring; but as 30.24 inches fell last season, the soil will not require so much rain now, especially those lands that have been well cultivated. It is safe to predict a good harvest.

### Fresno.

**WEST SIDE WHEAT CROP PROSPECTS.**—*Fresno Expositor*: W. T. Motley, near Elkhorn, says: Our wheat crop last year compared favorably, and in many instances turned out a better yield per acre than land on this side. We have got land over there which produced last year 25 sacks to the acre. How's that? All signs fail in dry weather, but if I am not badly mistaken, we'll outdo our former efforts. You never saw such a pretty prospect for grain in your life. A large increased acreage has been sown, and it is already about two feet high, while the volunteer wheat is ready to head out. You see the abundant harvest last year was an incentive to increase the acreage of the cereal crop this season. Now there is another thing. We don't need rain specially over our way. We can get along very well for six weeks yet, and nothing will suffer. Our irrigated soil will produce a fair crop without rain at all.

### Humboldt.

**HILL LANDS FOR PROFITABLE DAIRYING.**—*Eureka Times*, Jan. 29: The owners of hill lands have confined themselves to wool-growing because it has been supposed that the weather in that section is not suitable, and the season too short for dairying. The milk would sour before the cream would raise, and the cream spoil before it was churned. Then, on the best ranges, fresh feed is obtainable only four

months in the year, and that is insufficient for profitable dairying. But later methods and improvements have shown that these difficulties can be overcome. The creamery plan of butter-making obviates the necessity of storing milk and cream. The separator makes the butter direct from the milk and can be operated in the hills as well as elsewhere. Again, the season of fresh feed may be artificially lengthened by storing feed. Corn, barley, oats and wheat may be grown on any plowable hill lands. They produce exceptionally well, and corn especially is always a good crop in the hills. These products may be stored so as to furnish fresh feed by means of silos. It is well known that the storing of green feed or ensilage is no experiment. It has been practiced for years. The air is what produces the mischief with feed just as it does with fruit or any other perishable product. If green feed is excluded from the air, as fruit is in cans or jars, it will keep. This object is attained by means of air-tight silos which can be constructed in the hills as well as in New England. By means of this process the four months' milking season may be lengthened out to six months or more.

### Kern.

**DESERT LAND ENTRIES.**—*Fresno Republican*, Jan. 30: The recent decision of the Interior Department in the case of the Carr & Haggin land entries in Kern county has been looked upon with great interest by about 200 Fresnoites who went south and filed claims upon lands. Many of these claims stand in the same position as did the Carr & Haggin entries. The following letter received by one of the interested claimants from a leading attorney of Visalia is of interest: "Yours of the 19th to hand and is only one of over a hundred to answer. The decision of the secretary touches all of the suspended entries and cancels but one, the one tried Dec. 30, 1877, United States against J. B. Haggin. The others stand each on its own merits. The entrymen get the balance of three years after the order of suspension to reclaim and make proof; hence they can only be assailed for fraud in making the entry or non-desert character of the land, and not for non-reclamation in the three years from date of entry. As to who shall have the preference, right of contest among the numerous contestants for each piece will be determined by the Commissioner of the Government Land Office and will be the subject of a letter of instructions from that office, which may come in one or two months. Nothing further is known by any one."

**A BIG WHEAT-FIELD.**—*Bakersfield Echo*, Jan. 29: Kern has never out-much of a figure as a wheat-producing county, but each year sees a material increase in the acreage, and if the farmers do not stop seedling her "desert lands" she may yet rank among the big ones of the State. Aus. Stoner has just finished seeding 3000 acres for J. M. and O. B. Kimberlin in the Poso creek country. He has been running three 5-gaug plows and each setting of the sun has seen about 30 acres more seeded, plowed and harrowed. These three features of the work are performed at the same time, the seeder being attached to the front of the plow and the harrow at the sides. Just after harvest last year, Aus put in 1200 acres for these gentlemen at a cost of 30 cents per acre. But the Messrs. Kimberlin have not stopped at the seeding done by Mr. Stoner. Their own teams and other hired ones have been at work until now their grain-field covers fully 10,000 acres. This is all on unirrigated land—such as Mr. Carr loves to call "desert land." Its surface is quite even and level and all kinds of farm machinery can be operated at the minimum of cost. It is estimated that two sacks of grain will pay every item of expense from the seeding to the threshing, both inclusive. Thus it will be seen that a very small crop will yield some net profit. The dry-land farmers are feeling very hopeful this spring. The late rains are the ones that benefit their crops most, and as the fall so far has been very light—less than two inches—they feel sure of enough to insure them some crop unless the season shall turn out to be one of the driest on record.

**PLANTING APPLE TREES.**—*Bakersfield*, Jan. 29: "There has never been so much apple talk as this spring," said a well-known tree-man a few days ago. "It is generally admitted that the cool mountain valleys can raise the best apples, but they do not raise enough. The people in the valley are becoming weary of paying at the rate of \$60 to \$100 per ton, or \$1.50 to \$2.50 per bushel, for their winter supply of this great family fruit. Many who are just out from the East, where apples are plentiful and cheap every year, find it pretty hard to go through the winter without a few barrels of apples in the cellar. But current prices are almost prohibitory." "To raise first-class, crisp, juicy, winter apples in our hot valley," said W. A. Sanders, the well-known botanist, "you must obtain such varieties as have the above qualities in other regions equally warm. The best that I have found is an Alabama seedling of the 'Romanite,' known in Alabama as 'Red Warrior.' These are juicy, fine flavored and keep crisp and firm throughout the entire winter. I obtained grafts from Mobile some ten years ago, from which I now have a half-dozen bearing trees. I have kept the apples till June, perfectly crisp and hard. The same characteristics of juicy crispness and freedom from any tendency to wilt are found in the 'Golden Wilding,' a North Carolina seedling of the Newtown Pippin, and in the Arkansas Black, a seedling of the old Winesap. All of

these are practically exempt from the codlin moth."

### Los Angeles.

**LARGE ORCHARD.**—*L. A. Herald*, Jan. 24: In the L. J. Rose company's plantation there are 20,000 acres and 20 artesian wells. Mr. E. C. Bichowsky, the manager, says there are about 10,000 boxes of oranges on the trees and 2500 boxes of lemons; against this very fair crop of 12,500 boxes there was a total last year of just 700 boxes. If things go on as they are doing now, in two years the crop will reach the great figures of six or eight years ago, when L. J. Rose used to sell 20,000 to 30,000 boxes a year. There are about 700,000 good vines left on the place that have survived the ravages of disease. From these, 1300 tons of grapes were crushed last year, and if they could have been all picked in time there would have been 200 tons more. These worked up into about 180,000 or 200,000 gallons of wine, a good deal of which was distilled into brandy. A new distillery will be built this summer, a brick building, at a cost of \$5000. Preparations are making on the ranch to plant 100 acres of new vines this spring. Mission, blanc elben, herger, malvoise and zinfandel will be set out. There are 7000 citrus trees in the place, and 15,000 deciduous trees, including pear, nectarine, prune, fig, olive and apricot. A large orchard of White Smyrna and Adriatic figs has been planted. To irrigate the new vineyard a great deal of concrete pipe will be laid to carry water. It will be 8-inch pipe.

### Nevada.

**A GOOD CITRUS FRUIT SECTION.**—*Grass Valley Tidings*, Jan. 30: What is true of Smartsville for orange-growing is true of Mooney Flat and all along the ridge of the South Yuba river as far up as French Corral. At the latter place, which is at an altitude of about 2000 feet, oranges are grown in the open air and very little snow falls during the winter. The whole section of country extending from Smartsville to French Corral is adapted to fruit raising, the soil being as good as in any part of the county. The big ditches, formerly used to convey water to the miners, are now used to advantage in irrigating, and this alone is only one of the many advantages offered to those who purchase land in that section of Nevada county.

### Orange.

**A FRUIT DRIER ASSURED.**—*Anaheim Gazette*, Jan. 29: Messrs. Van Valin and Godfrey have entered into a contract with our citizens to have a fruit-drier in running operation by the middle of June. Two acres of land have been donated opposite the Southern California depot, and the required subsidy has been subscribed. This is news of importance to our people, as a fruit-drier is just what we want. The drier will be in operation in time to handle the season's fruit crop.

### Placer.

**LARGE DEMAND FOR FRUIT TREES.**—*Auburn Republican*, Jan. 28: The nurserymen report business very active in their line at present. They are selling large numbers of young trees to farmers and orchardists in Auburn and vicinity. Bartlett pears, prunes, peaches and the hardier sort of fruits are most in demand. A. F. Boardman is sending a great many Picholine and Mission olive trees to Oroville, where the olive has not been cultivated to any great extent heretofore.

**OLIVES IN PLACER COUNTY.**—*W. O. Lofland in Auburn Herald*: I believe Auburn is situated in the best olive-growing belt in the State, and I am glad to learn that this tree is being extensively planted in the vicinity. I am informed that within a radius of two or three miles of Auburn the following mentioned parties have backed their judgment on this being the olive region of the State: Mrs. Agard, 2000 trees; Mr. Hughes, 1500; Mr. Birdsell, 3000, and immediate arrangements to plant 2000 additional; Mr. Closs, 2500; Olivina farm, 1500; Mr. Harry Bowman, 400; Mr. Gibson, Mr. F. L. Smith and others have planted a few hundred trees each. A little farther off, in the direction of Clipper Gap, Hon. C. F. Reed has an olive orchard of 3000 trees, while down in Long Valley the Sherman Bros. have 30 acres on their two places planted to olives, and in the neighborhood of Newcastle Mrs. Anna Smith has about eight acres, Mr. Ammon about 100 trees, and Mr. John Lewis 500 trees. All or nearly all of the trees in the above-mentioned orchards are of the Redding Picholine variety. There are, of course, in this county, many other orchards, both large and small, that just now I cannot call to mind.

### San Bernardino.

**BETTER-GROWING.**—*Chico Champion*, Jan. 30: The officials of the Ontario Land Co. have announced their purpose to grow about 150 acres of sugar beets for the China factory.

### San Benito.

**MUTTON SHEEP SCARCER AND HIGH.**—*Watsonville Pajaronian*, Jan. 29: Mutton is worth 20 cents per pound in Hollister, and the butchers get their dressed mutton in San Jose. The sight of a band of sheep in that town is considered a novel event, and yet it is not many years since the Hollister valley was one of the great sheep-producing districts of the State. In the agricultural development of California nothing has been so much contracted by that growth as the sheep interest, and yet there are many districts in this State where sheep could be profitably raised with other stock on the farm, and at present, nothing in the stock line would bring as big profits. All along the coast, sheep are scarce and mutton is

big. Local meat dealers state that they are selling mutton at a loss because of the high price asked for sheep.

### San Diego.

**HIS OWN WATER SYSTEM.**—*S. D. Union*, Jan. 29: Another important land sale is announced from the farther edge of the great mesa extending from Mission valley to the mountains on the north. It lies about halfway on mesa and slope and is divided from the Gay place by a quarter-section on the east. The land sold includes 400 acres. The purchaser has just let a contract to build a 300-foot dam, by 20 feet high, on the highest point of the land where it is feasible to impound water. Three-fourths of the land will lie below this dam, and it is intended to put the rest under water by using a windmill and tank. A second dam is contemplated to provide an ample water supply, as the drainage area is considerable.

**FARMING ON A LARGE SCALE.**—*San Jacinto*, Jan. 28: William Newport of Merilee is one of those model farmers that you read about. This year he is seeding to grain 2000 acres, while 500 acres will be sown to alfalfa. He has also just completed a reservoir with a capacity of 60,000 gallons. Altogether Mr. Newport has one of the finest ranches in the State.

### San Luis Obispo.

**THE OLIVE INDUSTRY.**—*San Miguel Courier*, Jan. 29: Extensive arrangements have been completed for the erection of what will be the largest olive-oil factory in the world. W. Griswold of the Los Guillicos Olive Co. says: We propose to spend \$250,000 in the building and equipment of an olive-oil factory. Work will be begun almost immediately, as we have 60 acres of six-year-old olive trees bearing splendidly. We have a large force of men at work laying out the ground and planting trees, and by spring we expect to have over 700 acres planted with olives. The severe winters in Southern Italy and Southern France have totally destroyed the crops, and the oil made in Spain reaches this country in such an adulterated and inferior condition that importers are now looking for a home product. Already large orders have been placed with us for oil, and we hope before long to supply the whole Eastern market.

**LARGE SEEDING.**—*Adelaide Cor. S. L. O. Tribune*, Jan. 30: The opening for the new year continues to look exceedingly hopeful for the farmers in this end of the county. There has never been, according to my notion, a more favorable season for seeding than this, and every one is putting in all the land tillable.

### Santa Barbara.

**BEAUTIFYING THE FARM.**—*Santa Maria Times*, Jan. 24: The gum and pepper trees planted out in our valley two or three years since, for windbreaks, have made a wondrous growth, and greatly added to the beauty of our valley. This has encouraged others to plant out trees for protection from the wind, and the lines of many sections and quarter-sections are being single and double rowed with these fast-growing trees this winter. Year by year the farms and country residences, dooryards, gardens, etc., are becoming more attractive by adding miscellaneous improvements.

**WILD SORREL.**—*S. B. Press*: We are informed that wild sorrel, perhaps the most dangerous weed to stockmen and farmers of this county, has gained a foothold in a gulch at the summit of the mountains, near the San Marcos pass, and unless prompt measures are taken for its eradication, it will threaten the land on both sides of the mountain. This weed, which has totally ruined thousands of acres of the best land in the prairie States, spreads rapidly, and when once fairly seated is almost impossible to eradicate.

### Santa Clara.

**SUMMER-FOLLOWING.**—*Los Banos Cor. Gilroy Gazette*, Jan. 30: Grain looks well considering the cold, foggy weather of the West Side this winter. Farmers are summer-following this season. This ground will be ready for sowing to grain when desired in the fall. It would be better to plow again in the fall and then seed it. Farming has been on a free and easy plan for so long here that it is quite a change to see land in summer-fallow, but it is the proper way here.

**HOW TO MAKE A TREE FOUNTAIN.**—*San Jose Herald*, Jan. 30: A fountain, with water spouting from the center of a willow tree, will shortly be a curiosity at the Wilcox farm. Several years ago Mr. Wilcox tied a piece of well pipe about six feet in length to a willow tree. During the growth of the tree this pipe has been gradually inclosed so that it is now almost in the center of the trunk, with one end sticking out. Where two branches separate, about eight feet from the ground, water will be forced up through the tube in the center of the tree from an artesian well.

### Siskiyou.

**A PROMISING APPLE-GROWING SECTION.**—*Sacramento Union*, Jan. 21: Col. Jackson (who is one of the supervisors of Siskiyou county) says that his apples are grown at an elevation of from 2700 to 3000 feet. He has but a small orchard of ten acres as yet, but has this season shipped therefrom some 3000 boxes, besides having great quantities that were allowed to go to waste. He has with him samples of Golden pippins, Typoboon, White Pearmain, Lady apple, Euseobus Spitzbergen, Wine Sap, Smith's Cider, Romanite and other varieties. The apples are all of fine size and superb flavor, and clearly demonstrate the fact that Siskiyou county is capable of supplying not only the



home market, but other portions of the Union with this desirable fruit. Aside from their size, beauty and fine flavor, these Siskiyou apples possess the valuable quality of keeping well. Col. Jackson says that some varieties of these apples have been known to keep in good condition for a year and a half. Indeed, they will, it is claimed, preserve their good qualities for even a longer period. Col. Jackson has now some American pippins that were picked a year ago last fall, and he does not know how much longer they may keep. The apple-growing section is now chiefly confined to Big Shasta, Little Shasta and Scott valleys and along the Klamath river. Land suitable for the cultivation of this fruit can now be had at from \$5 to \$20 per acre, although wild land—much of which is quite as good for the purpose—has practically no present value; it can be had at anywhere from \$1.50 per acre. There is any quantity of both Government and railroad land in that section that can be had at a low figure. The growing of apples should become a profitable industry there in the near future. Sacramento fruit-dealers assure Col. Jackson that they can find a market, at good prices, for all the apples they can get from there. Those brought here by Col. Jackson retailed readily at \$2.50 per box of 60 pounds. "Up to a few years ago," remarked Mr. Robertson, "fruit-growing was profitless in our part of the State, but now that the California & Oregon railroad has penetrated the mountains and valleys of that section, horticulture has become not only possible, but profitable, by having a market opened up for the products thereof. By hauling their fruit a few miles to the railroad stations, the orchardists can readily market their fruits at a good profit."

**Santa Cruz.**

**SMALL FRUITS.**—Watsonville *Rustler*, Jan. 30: The Pajaro valley has long been known as the natural home of the small fruits, and its berries of every variety have an enviable reputation for size and flavor all over the State. One of the most noted strawberry grounds in the valley is the Lake farm a considerable portion of which will be put in blackberries this season. John Grimmer, who owns a fine farm near town, will set out an extensive strawberry-bed, and reports from other points indicate that the farmers have an abiding faith in the near future of the berry and small-fruit industry.

**Sonoma.**

**GOPHER PLANT.**—Petaluma *Argus*: Mrs. Gregory informs us that they had been greatly harassed by gophers which gridironed their lawn and flower borders with their tunneling, until they planted in their grounds gopher plants, which caused the gophers to disappear entirely. We were informed that John Gregory, near Lakeville, had freed his place entirely from gophers by means of this plant. Upon this authority, we secured a gopher plant which soon began to grow thriftily, and in a few months there was not a gopher around, and there has not one shown up in two years. We noticed some of the plants growing on the grounds of Prof. E. S. Lippitt, and on inquiry we learned that the gophers had been a perfect torment to him, but that they had disappeared entirely and he knew of no reason therefor, unless they had been exorcised by the gopher plants. From other sources this testimony is of like character. We do not know the botanical name of this plant. It is rather ornamental in appearance—deep green, variegated with white along the stamens of the leaves, which are long and narrow and grow in four straight rows up the stem of the plant. These plants at the present time are green and thrifty, our recent cold, frosty weather seeming not to retard their growth. The plant grows from seed which is about the size of the seed found in the pods of the black locust. If it is an established fact that gophers will not stay in the vicinity of this plant, it is a matter worth knowing, and of vast importance not only to gardeners and orchardists, but of incalculable value to those growing alfalfa.

**BEATING THE GOPHER.**—Santa Rosa, Jan. 22: J. P. Stanley has just completed a gopher fence around his place in this city. Mr. Stanley has had a good deal of experience in gardening and fruit-raising and has had to contend with the usual pests. The gopher is one of the most persistent foes he has had to deal with, but he has finally beaten him. To keep him out he has a close fence and then digs down nearly two feet, in front of the fence and alongside of it, and places a wide board on edge. The gopher, he says, cannot work his way through a board thicker than a shingle, and never goes more than two feet under the surface when he tunnels into a field. He has tried the gopher fence and found it to be a complete success. Referring to the statement made by Jonathan Roberts a few days ago in regard to the damage done by the gopher in girdling trees, Mr. Stanley says that if, when trees are set out, the earth around the roots and the collar of the tree be liberally sprinkled with broken glass, pieces of old bottles, etc., Mr. Gopher will avoid the tree altogether. He has tried the plan thoroughly and recommends it to the fruit-growers of the county.

**Stanislaus.**

**A LARGE VINEYARD.**—Modesto *Herald*, Jan. 30: L. M. Hickman is engaged in leveling a tract of 360 acres, which he will plant to grapevines this year. Mr. Hickman's farm is in the Turlock Irrigation District, and he proposes to have his land in condition to receive the benefits of water when the canal is completed. Two

years ago he planted 20 acres to vines, and they are thriving finely even without water. He finds that cultivation is almost as good as irrigation, and he says no one is justified in holding back from planting orchards and vineyards because the water is not yet here. In addition to his vineyard, Mr. Hickman has an orchard of 600 orange trees and 1000 each of olives and figs. They are growing wonderfully, and it is a question whether they would do much better with water.

**Yuba**

**UTILIZING AN ORCHARD.**—Marysville *Appeal*, Jan. 28: N. Robinson has six acres of land, about half of which is planted to fruit trees. He will put out the rest this winter, principally to pear trees. He intends to plant the ground between the trees to blackberries, strawberries, carrots, beets and other vegetables. He has 1800 blackberry vines, and will plant the strawberries as soon as the north wind goes down. The acre of carrots he has growing will be used as horse fodder, for which purpose carrots are excellent. The beets will be used to feed cows. He is a strong believer in the production of such articles both for sale and home use.

**THE LARGEST HOP CROP PER ACRE.**—Wheatland *Four Corners*, Jan. 31: We have always held that the Bear River soil was the best in the world, and if the hopvine is a judge of soil we have positive proof. From the statistics of the crops of '89 and '90, Yuba county gives a larger yield per acre than any of the counties of California, Oregon or Washington. Yuba county leads all the California counties by an excess of from 500 to 1200 pounds per acre. King county, Wash., is the only close competitor, which county averaged 2140 pounds per acre to Yuba's 2340 pounds. Besides producing the largest acreage, Bear River hops are ready for eastern shipment before all other sections, and as to quality, Bear River hops rank at the head.

**ARIZONA.**

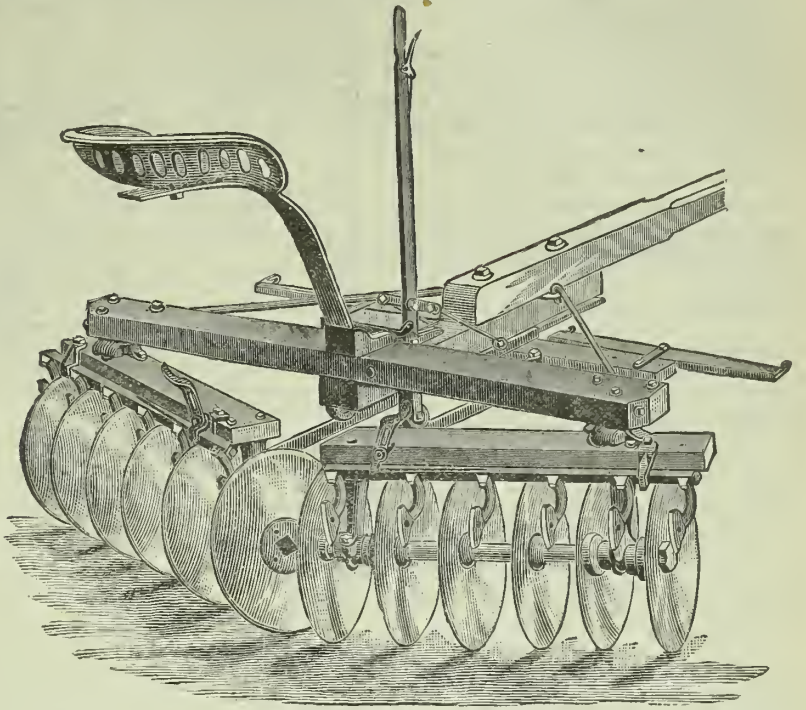
**PLANTING VINES AND TREES.**—Phoenix *Star*: The Mohawk Ranch Co., in this county, is doing some excellent work. It is making a most thorough and practical experiment of agriculture in general and fruit-growing in particular. The company has secured the services of an experienced and thorough vineyardist and orchardist, Thos. J. Reese, late of Riverside, Cal., who has put a large number of men, under Superintendent E. B. Waggy, at work setting out 80 acres in vines and fruit trees, which will consist of 10 acres of White Adriatic figs, 10 of the Golden Pringle apricot, 10 of the Bartlett and Columbia pears, 10 of Bidwell's Early and Orange Cling peaches, and 40 acres of Black Hamburg, Flaming Tokay, Mission and Muscat grapes. Ground is being prepared to put out 200 acres more of vines and fruit as soon as it can be done. At present much time and labor is being devoted to the 160 acres of alfalfa, which produces from five to seven crops annually where it is not fed down by cattle or hogs, of the latter of which there are nearly 200 of the very best Poland China and Berkshire breeds now on the ranch, most of which are breeding sows. It takes several acres of alfalfa to feed this fine stock of hogs.

**MESQUITE HONEY.**—Phoenix *Herald*, Jan. 22: In a recent report to the Department of Agriculture, Statistical Agent C. D. Poston has some interesting remarks about the mesquite tree, its uses and possibilities. It grows in the most desert places of Arizona, Texas, California and Northern Mexico. Its principal yield is a nutritious bean containing a large proportion of saccharine, which has been used for food by the aborigines, for forage by the Mexicans and for the distillation of whisky by more civilized races. A mesquite tree at maturity will yield 10 or 12 bushels of beans annually. It flowers with the coming of the rains in June, about the 24th. Mr. Poston has seen the same tree growing in the East Indies and flowering with the monsoons. Assuming that saccharine productions mature more abundantly with a generous sun, it may be that the intense heat characterizing parts of Arizona will prove an inexhaustible fund for the stimulation of saccharine products, such as honey, sugar cane, sorghum, the sugar beet, etc. The mesquite tree will thrive upon land otherwise absolutely worthless. By planting the beans on the deserts, millions of acres of bee orchards can be maintained without the slightest cultivation. The bees will do the rest of the work. This tree exudes a gum which resembles gum arabic, and is used by the Indians and Mexicans for medicinal purposes. Upon chemical analysis it may be found really valuable pharmaceutically. Thus this acacia produces flowers for making honey, beans for sustenance and a gum for medicine. Besides, the timber is almost as indestructible as iron, and is used for railroad ties and building purposes. The bee-keeping industry here is in its infancy, and yet over 100 tons of honey were shipped to Eastern markets last season. In quality Salt River Valley honey is unsurpassed even by the white sage honey of California. Arizona's climatic conditions are most favorable, not only for the secretion of bee material in the mesquite flowers, but also saccharine deposits in beets and cane.

Shakespeare will please excuse us if we modify him thus: Thrice is he clad who hath his system strengthened with Ayer's Sarsaparilla, and he but naked, though arrayed in furs, whose blood is poor or with disease corrupted. An incomparable medicine!

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A little book that every farmer ought to have is the "Sorghum Hand Book" which may be had free, by addressing The Blymyer Iron Works Co., of Cincinnati, O. Sorghum is a very valuable crop for syrup-making, feed, and fodder, and this pamphlet gives full information about the different species, best modes of cultivation, etc. Send and get it and read it.

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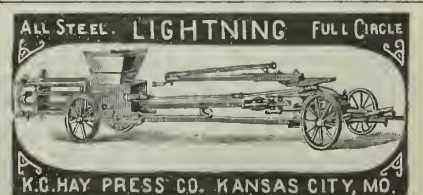
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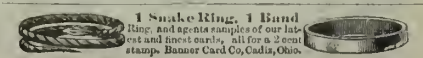
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## THE DAIRY.

## The Cow in Oregon.

[A paper read by M. COLLINS before the Farmers' Institute at McMinnville, Oregon.]

The cow is one of the most useful animals that we have, and as a rule the most abused. How often do we see the cow that is giving milk for the family have to stay outdoors in the storms, and with very little to eat. And then if she gets in the way, the dog is called and she is dogged and chased. Now this is the way a great many cows are treated. And the owner often wonders why that old cow doesn't give more milk. There is just as much sense in thinking that a horse will do his work and have nothing to eat as to expect a cow to give milk without having what she wants to eat. A cow is just what her owner makes her. If, when she first becomes a cow, she is treated gently and fed and milked regularly, she will in most cases be a good cow, and she will always give you value received for what you feed her. But if her calf is allowed to run with her, and she is milked just as it happens, why, she will be just that kind of a cow. If she thinks her calf ought to have her milk, the calf will get it and you can't help yourself. At any rate, this has been my experience with cows. I found that the more attention I paid to my cows the more I made out of them. It is a business that must be learned. A man must watch his cows and see what kind of food they require in order to give the best results. Great care should be taken not to overfeed as well as not to feed enough. In order to have good milk that will make a first-class article of butter and cheese, the cows must be fed on the best of food and have the best of water to drink. Now the question that has been asked and answered a great many times is, will or can dairying be made to pay in Oregon? I think that question can be answered by yes or no. It depends altogether on how we go at it. If we start in the spring with all kinds of cows and depend altogether on our pasture we will not do much at it, because we will not be able to get a very big figure for our product. When we commence to feed in the fall our cows are about dry, and it doesn't pay to feed them through the winter, for what milk they will give. But if we have our cows fresh in October and November, and we have prepared feed and lots of it, have a good, dry and warm stable for them, and make it a business to attend to them, we will have lots of milk and butter, and if we make a number one article we will get a fancy price for it. And then we will have our customers, and we will have no trouble in getting a fair price for it. Our cows if well cared for, when the green feed comes in the spring will keep up their flow of milk as long as the green feed lasts. When it is gone in July our cows will begin to fall in their milk, and then it is about time for them to have a rest, and that will be in August and September, the two hardest months that we have on the cows, for it is dry and the flies are generally bad at that time. So that then with a very little care our cows will be in good order when they give milk again. While I have laid some stress on giving so much time and attention to the cows, some one will say that if so much time is required to take care of cows they don't want to have anything to do with it. All I have to say is this: In this progressive age if we make a success of anything we have to be up and doing. There is no business nowadays but what has got to be studied and all of the points watched closely in order to be successful. So it is with dairying. A man must watch his cows and find out the poor ones and dispose of them and replace them with good ones, for it takes just as much to feed a poor cow as it does a good one.

If he makes his own butter and cheese he should make a good article so that it will bring him a good price. If he furnishes milk or cream to a factory, he should take the same pains with it so that the factory can make a number one article. But if we all say that it is not worth while to be so particular about this thing, why, the result will be a failure.

We have got the country and the market for dairy products and if we don't make a success of it, it will be our own fault, for they have made this thing pay in the East where they have long, cold winters, and their prices are way below ours, and they are shipping butter and cheese here and selling below Oregon butter. It was the cow that has lifted the mortgage off from many farms in that country, and she will do it here if given a chance. There is another thing about it that I like. It is cash, and if every farmer in this valley kept cows enough to pay his running expenses, why, don't you know that it would put everything on a cash basis, and he will be independent and can buy where he can do the best. Now in my mind this is quite an item. And to show you what they are doing in some of the Eastern States I will read an article from Hoad's Dairyman, showing what they have done in the last year.

According to the latest data, the Advertiser has seen the present annual make of butter and cheese in Wisconsin amount respectively to \$7,500,000 and \$4,000,000 or a total of \$11,500,000. Add to this the value of the vast quantities of milk and cream supplied to cities and towns and consumed at home, the value of

calves and by-products, such as skim milk, and the produce of the 700,000 cows of the State will run over \$20,000,000. Twenty years ago it was probably less than \$1,000,000. This remarkable progress indicates the application of intelligence and characteristic new world enterprise to the wheels of plodding industry lifted out of old-time ruts. They have had organizations, too, like Canada, the State Dairymen's Association being instituted in 1872, at the instance of W. D. Hoard, ("The Governor,") and five other men. To the present secretary, Mr. D. W. Curtis, of Fort Atkinson, Wisconsin, we are indebted for a copy of the eighteenth annual report, a well-bound, a well-printed and well-filled volume of 170 pages, ably compiled and properly indexed.

In his introductory address to the annual convention, W. H. Morrison, superintendent of the Farmers' Institutes, remarked that "when ever you find a dairy section of this State, you will find thrift and prosperity." Referring to the time when the association was instituted, he went on to say: "Through all these intervening years thousands of mortgages have been swept from the farms, and the sunshine of prosperity has shone upon the dairymen of our State."

I think that this is proof enough to us that what they have done in other places we can do here, if we only try. I am sure that if the farmers of this valley would take the interest and stay with the dairy business through thick and thin like they have with the wheat business, they would make a grand success of it. Why, just think of the amount of money that goes out of Oregon every year for butter and cheese. Why, we ought to have butter and cheese both to ship to other places instead of having to depend upon other States to supply us. We would see easier times. Now for instance suppose that the creamery here at this place was running to its full capacity. See the amount of money it would pay out to the farmers here every month. Or we will say that it was making five hundred pounds of butter a day. The creamery company could easily pay thirty cents a gauge for it at the farmer's door. Now five hundred pounds at thirty cents is \$150 per day, and thirty days in a month would make \$4500 a month. Now you put that much money in circulation among the farmers and we will see a great difference in the times. I don't want to be understood that the creamery could pay thirty cents all the year around, but if the creamery was doing the business that it ought to do it would pay a good price for cream all the time. I will say this to the farmers of any community, that if you are fortunate enough to get a creamery in your neighborhood, patronize it and all take hold as if you meant business, and pull together, and you will see the benefit of it in a short time, and the more that will take hold of it the quicker you will get on a paying basis. But where there are only a few that will try to do anything, it works a hardship on those few as well as the company. A great many claim that this is not a dairy country because our summers are dry. It is very true our summers are dry, but there is one thing that we can do. We can grow more feed on less rain than any country that I know anything about. I can remember since I have been here that it was generally thought clover would not grow here to amount to anything. I have seen the best clover here in Oregon that I ever saw anywhere, and I have raised good corn, and I found that it was excellent feed for cows, and comes in just the right time to feed, just about the time that the grass begins to dry up, and by raising a field of corn for the cows we have a nice summer-fallow to sow wheat on in the fall. By so doing we get the benefit of our summer-fallows, and so it is, if we only try, we can raise plenty of feed. Beets and carrots do well also. While we have some drawbacks here for the dairy, we have a good many advantages over our Eastern dairymen. Our climate is more favorable. It is not too hot in summer or cold in winter. The dairy business is like almost any kind of business; while some men will make a success of it, others will make a failure. When you see a man that can go into his cowyard and handle any of his cows and can sit down and milk them anywhere, and milk with both hands, you will see a man that will make a success of it. Sometimes you see a man, when he goes out to milk, call all of the dogs and all of the boys and each boy have a club and chase the cow up in some corner, and boys and dogs all stand guard in order to keep the cow there, while the man, with a bucket in one hand and a little tin cup in the other, begins to approach the terrible thing scared almost to death. But finally he makes out to get up so that by standing and reaching as far as he can, he begins to milk with one hand into the little cup he has with him, emptying it into his bucket. He does this because he is afraid that he will get kicked and spill his milk. If he doesn't get kicked he knows that he ought to be. Now this kind of a man will make a failure of it every time, because a cow that is ill treated will not give very much milk and what she does give will not be worth much. So it is all-important that we should treat our cows with all kindness. They will soon learn that man is their friend and they will be kind and gentle too.

"Ayer's Cherry Pectoral has given me great relief in bronchitis. Within a month I have sent some of this preparation to a friend suffering from bronchitis and asthma. It has done him so much good that he writes for more."—Charles F. Dumterville, Plymouth, England.

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No one, who is willing to adopt the right course, need be long afflicted with boils, carbuncles, pimples, or other cutaneous eruptions. These are the results of Nature's efforts to expel poisonous and effete matter from the blood, and show plainly that the system is ridding itself through the skin of impurities which it was the legitimate work of the liver and kidneys to remove. To restore these organs to their proper functions, Ayer's Sarsaparilla is the medicine required. That no other blood-purifier can compare with it, thousands testify who have gained

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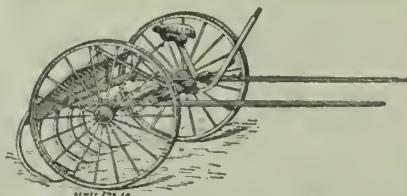
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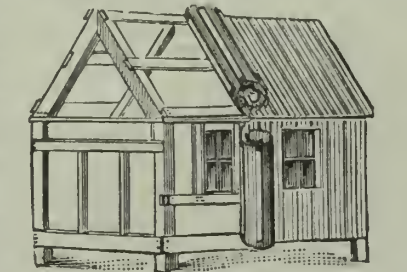
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Dividends paid to Stockholders.....627,500

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GUANO  
From Sophia Island.

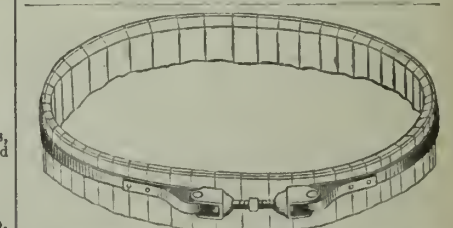
Put up in bags. For sale in lots at \$15.00 per ton, delivered on board car or vessel.

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Organic Matter and Ammoniacal Salts.....	32.54
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Malleable Iron. All Sizes.

These Couplings are the best in the world, most powerful and cheapest. They have a ball and socket joint, right and left screw and work freely. We use them extensively in our Tank Building Department.

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Postmasters are requested to be sure and notify us when this paper is not taken from their office. If not stopped promptly (through oversight or other mishaps) do us the favor to write again.



# THE "TRIUMPH."

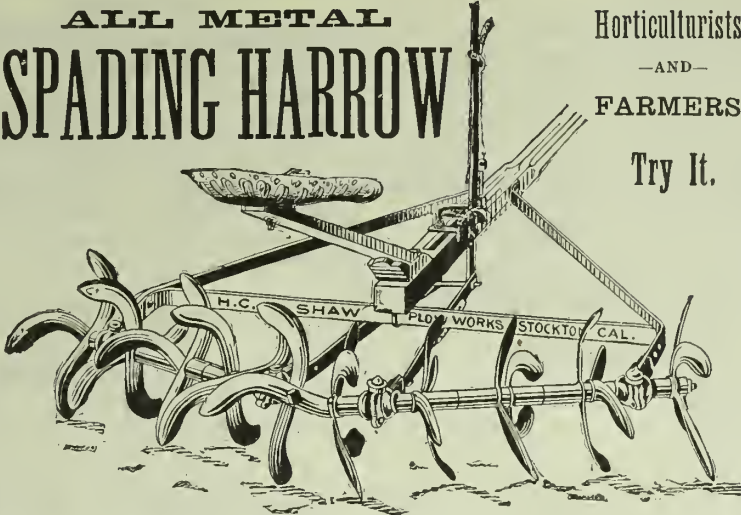
## THE BEST PULVERIZER IN THE WORLD.

JUST THE THING  
— FOR WORKING —  
Summer Fallow Land.

ALL METAL  
SPADING HARROW

Horticulturists  
—AND—  
FARMERS,  
Try It.

Specially Adapted  
— FOR —  
ORCHARDS AND VINEYARDS.



FOR TWO HORSES. Works the soil about six feet wide. Angle of teeth adjustable to work the soil at desired depth. THIS HARROW is something entirely new. IT IS THE GRAND-EST ACHIEVEMENT of its inventor, C. LA DOW, who is the recognized authority on Harrows, there being but few leading harrows at the present time not built under his patents. We have made exclusive arrangements for its sale and it can be obtained only through us or our agents.

Considering the immense amount of labor done, the draft is very light, as the pulverized soil passes through the gangs of revolving cutters, being left smooth. THE GANGS are so arranged that the most uneven ground is thoroughly harrowed and left level. IT LEAVES NO FURROW or ridge; when the field is harrowed it is all left smooth. 10, 12 and 14-ft. sizes in stock. Send for circular.

### TESTIMONIALS.

HAYWARDS, CAL., Jan. 15, 1891.  
H. C. SHAW PLOW WORKS, Stockton, Cal.—DEAR SIR: Your Triumph Spading Harrow is all that is claimed for it. It is the most perfect pulverizer I ever used in my orchard and is not wearying or exhausting on the team. Yours truly,  
WILLIAM C. BLACKWOOD.

SAN FRANCISCO, CAL., Jan. 16, 1891.  
H. C. SHAW PLOW WORKS, Stockton, Cal.—DEAR SIR: The gentleman using the Triumph Spading Harrow we bought from you for him writes us as follows:  
"That the Triumph Spading Harrow is in fact a triumph over all the harrows I have ever used. The first trial I made was on a 30-acre field sowed with barley. 15 acres were harrowed with the Triumph in one day as perfect as it is possible to be. The other 15 acres I harrowed with a common harrow and it took me three days, and then it was not in as good condition as that harrowed with the Triumph. The Triumph does splendid work and as a harrow I consider it worth three times as much as the ordinary harrow, as well in the field as in the orchard and vineyard. It is a perfect pulverizer and weeder.—C. STROBEL, Eagle Home Farm, Searsville, Cal." Yours Truly,  
CALIFORNIA WIRE WORKS.

LODI, CAL., Jan. 13, 1891.  
H. C. SHAW PLOW WORKS, Stockton, Cal.—DEAR SIR: The Triumph Spading Harrow which I purchased from you for use in my orchard has proved itself to be a very useful implement for that kind of work. One span of mules handles it easily, and it stirs up the soil and pulverizes it thoroughly. I am well pleased with it. Yours truly,  
E. F. GRANT.

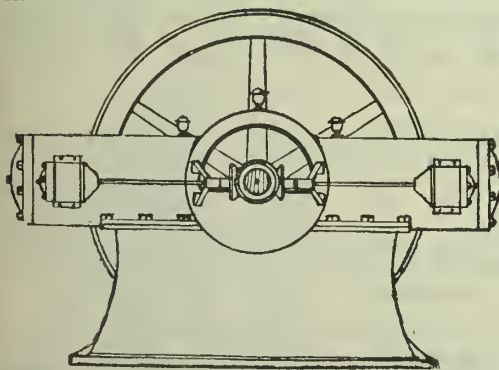
PIXLEY, CAL., Jan. 12, 1891.  
H. C. SHAW PLOW WORKS, Stockton, Cal.—DEAR SIR: Regarding the Triumph Spading Harrow would state that we are satisfied it is as light draft as any, and lighter than the average cultivator of its kind, and, as to its work, we think it cannot be beat. Yours truly,  
PIXLEY COMMERCIAL CO.,  
By L. E. SMITH, Secretary.

MADERA, FRESNO CO., Jan. 10, 1891.  
H. C. SHAW PLOW WORKS, Stockton, Cal.—DEAR SIR: The Spading Harrow received all right. I gave it a trial this evening and I am well pleased with it. I think it will sell like hot cakes, and would like to be sole agent for this county. If you don't give me the agency for this county, give me Madera anyway. Yours respectfully,  
W. C. HARRIS.

CHAMBERS OF THE JUDGE OF THE SUPERIOR COURT, JOHN C. GRAY, JUDGE.  
OROVILLE, BUTTE CO., CAL., Jan. 27, 1891.  
H. C. SHAW, Esq., Stockton, Cal.—DEAR SIR: I purchased from your Agent, Mr. Hill, one six-foot Triumph Spading Harrow, and sent the same out to my olive farm to try. My foreman declares that it will do the work of four plow teams, and requests me to get another to put into the field by the first of March. He is highly delighted with it and calls it the greatest improvement in farm machinery he has yet seen. Instead of putting a number of teams into the field to plow and then harrow the ground, I shall go over it with the Spading Harrow twice and the work will be more thoroughly done, and at one-third of the expense. This is one of the most complete pieces of farming machinery that I have yet seen, and I cheerfully recommend it to those, who, like me, want the most and best work done for the money. It gives entire satisfaction. Yours truly,  
JOHN C. GRAY.

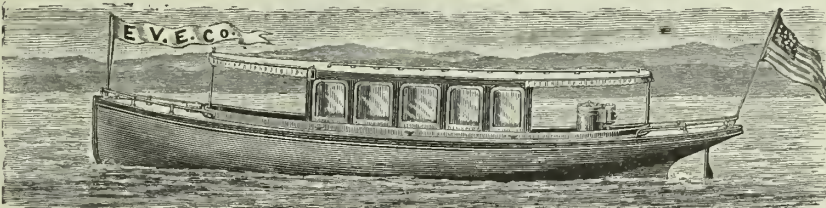
BAKERSFIELD, CAL., Jan. 26, 1891.  
H. C. SHAW PLOW WORKS, Stockton, Cal.—DEAR SIR: After using your Spading Harrow in all kinds of work, I will say it is the best pulverizer that I have ever seen. I used it to cultivate my orchard and vineyard, and it does not only cut up all weeds, but leaves the roots up to the sun, which is sure death to them. You may praise it as high as you like, as you cannot say anything it does not deserve. Yours respectfully,  
C. A. HAUL.

H. C. SHAW PLOW WORKS, Stockton, Cal.



Cheaper Than Windmills for Farmers!  
Our Perfected "Safety" Engines Cost to Run only 1-8 Gallon of Gasoline per Horsepower per Hour.

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Boiler,  
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Smoke,  
Steam,  
Ashes,  
Or Heat  
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Engineer;  
No  
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Danger.

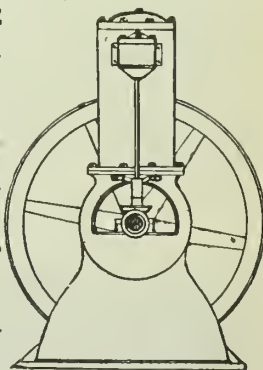


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Complete Plants of all kinds, Station-  
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Single  
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Double  
Acting.  
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½ H. P. to  
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## ONGERTH'S GRAFTING COMPOUND.

TRADE MARK REGISTERED.



For Protecting Grafting,  
Other Wounds or Cuts on  
Trees and Vines.

This Compound protects all wounds or cuts on trees and vines from the influence of the atmosphere and water: it increases the formation of Cambium, thereby producing a rapid healing of the wound, and is therefore a perfect substitute for the bark. It further keeps all animal and vegetable parasites from the wound and prevents the decay and molding of the wood. Grafting is made absolutely successful by the use of the Ongert's Compound. Special attention is drawn to the fact that it is absolutely necessary to protect the grafting wounds on grape vines. No other substance, known at present, is so effective as the Ongert's Compound. It never fails! A great many trees and vines are killed annually by unskilled cutting and pruning, and by the inadequate protection of the wound. Wounds ought to be allowed to evaporate for 24 hours at least before covering them, with the exception of pear trees, where the wounds may be covered as soon as cut. All parties who used this Grafting Compound last year praised it as the only successful compound they have ever used. Send for a sample can.

PRICE—One pound tins, 75c; two pound tins, \$1.20; in lots of 20 pounds or more, 50c per pound. One pound is sufficient to cover 1000 wounds of one inch diameter each.  
WOODIN & LITTLE, General Agents, 314 Market Street, Junction of Bush, San Francisco, Cal.

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Is now made in FIVE SIZES with Prices  
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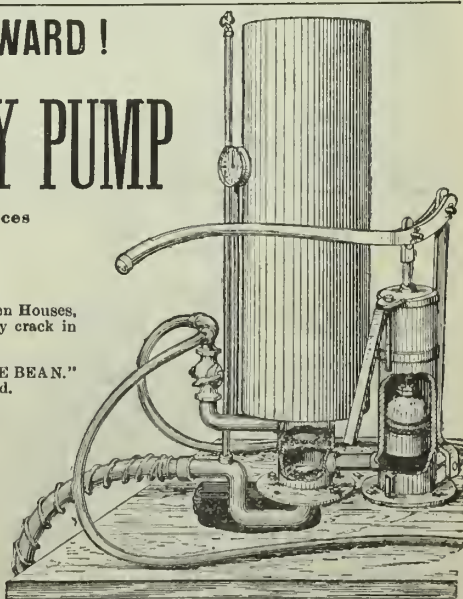
You can Whitewash your GRAIN HOUSES, Chicken Houses, Barns and Fences at a great saving of time, and every crack in the ceiling will get a dose.

Tree spraying is made easy and cheap by using "THE BEAN." With our LARGE pump four strong sprays can be used.

The NEW Bean Nozzle is not injured by the Lime, Sulphur and Salt Wash, which ruins all brass nozzles. Price \$1.

Send for circulars and testimonials to

BEAN SPRAY PUMP CO.,  
LOS GATOS, CAL.



## POTATO — PLANTER

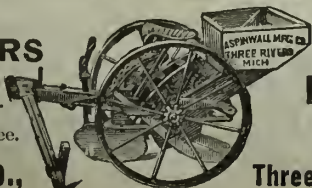
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PORTABLE  
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**POISON-PROOF ANIMALS.**—Neither difference of organization in animals nor in the constitution of the poisonous substance generally afford any clue for interpreting an exceptional want of effect, writes W. Bernhardt in *Popular Science Monthly*. Unaccountable is the immunity of rabbits against belladonna leaves (*Atropa belladonna*, deadly nightshade). You may feed them with belladonna for weeks without observing the least toxic symptoms. The meat of such animals, however, proves poisonous to any one who eats it, producing the same symptoms as the plant. Pigeons and various other herbivora are also to some degree safe from the effects of this poison, while in warm-blooded carnivora it causes paralysis and asphyxia. In frogs the effect is a different one, consisting of spasms. The meat of goats which had fed on hemlock has sometimes occasioned poisonous effects. Chickens are nearly hardy against aux vomica and the extremely dangerous alkaloid, strychnine, contained in it, while in the smallest amount it is a fatal poison to rodents. More remarkable yet in this respect is the immunity of *Choleopus Hoffmanni*, a kind of eloth, living on the island of Ceylon, which, when given ten grains of strychnine, was not much affected. Pigeons are possessed of high immunity from morphine, the chief alkaloid of opium, as well as from belladonna. Eight grains were required to kill a pigeon, not much less than the mortal dose for a man. Cate are extremely sensitive to fox-glove (*Digitalis purpurea*), which on the contrary may be given to rabbits and various birds in large doses.

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#### Ditching Machine for Sale.

If any farmer in Russian river or Santa Rosa valley desires a DITCHING MACHINE at a very low price let him address S. E. G., P. O. box 2517, San Francisco.

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I OFFER THIS SEASON A LARGE AND SELECT stock in PALMS (50 varieties), in CITRUS—Eureka, Lemon, Washington Navel, Indian River, etc.; in OLIVES—Mission (100,000), Italian (Frantoio, Morinello, etc.) from imported trees; also the French and Spanish varieties. Large selections in PINEAPPLE and BANANAS. Also the largest collection of Tropical Fruit-Bearing Trees in the State, a few of which are: Alligator Pear, Cherimoya, Mango, Sour Sop, Sugar Apple, Star Apple, Cashew Nut, Rose Apple, Cocoa Plum, Elephant Apple, and others too numerous to name. Send for Descriptive Catalogue. KINTON STEVENS, Santa Barbara, California.

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FRED C. MILES, Manager.

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12 to 20 inches.....\$40 per 1000  
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California Fan Palms, 4 to 6 ft. high, \$2.

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FRUIT, SHADE AND ORNAMENTAL.

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Or Red Gums at \$14.00 per 1000, all transplanted, healthy, hardy stock. Will send any size required, from 6 to 10 up to 12 to 18 inches high, at above prices. Any size of Monterey Cypress at low rates. Send stamps for sample boxes. The best trees, for the least money, in the State. GEO. R. BAILEY, Park Nursery, Berkeley, Cal.

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Seeds and Improved Egg Food,

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MISSION, MANZANILLO, NEVADILLO & PICHOLINE.

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TRAGEDY PRUNES, YEARLINGS; EARLY CRAWFORD Peaches, 16-rings; French Prunes, June buds. Call or inquire at 910 Fifth Street, SACRAMENTO, CAL. INGLESIDE NURSERY COMPANY.

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A Superb Lot of Bartlett's and Apples

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Cherries, Olives, Walnuts, Shade Trees, Table and Raisin Grapes, &c., &c.



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RELIABLE SEEDS  
We give you BEST Seeds and save you Big Money. Buy direct from the grower. Pkts. only 2 and 3 cts. Send for our Handsome Illustrated Catalogue mailed FREE. Market Gardeners ask for Wholesale Price List. ALNEER BROS., ROCKFORD, ILL.

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Lovers of fine plants will find a large collection of Beautiful and Rare Plants, as well as Novelties of Merit. This rich collection is well grown and offered at very low prices. Orchids—a very extensive stock, East Indian, Mexican, Central and South American, etc.; hardy perennials, Roses, Clematis, Peonies, etc.; new and Standard Fruit; Rare and Beautiful Trees and Shrubs, etc. Catalogue on application. JOHN SAUL, Washington, D. C.

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Suitable for the Conservatory, for Parlor Windows, for the Flower Garden, for the Lawn, for Vases, for Rockeries, for Hanging Baskets, for Ribboning, for Hedges, for Arbors and for Shade Trees. Catalogues Free on application.

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Oakland, Cal.



WHY ARE SOME PEOPLE ALWAYS LATE?—They never look ahead nor think. People have been known to wait till planting season, run to the grocery for their seeds, and then repent over it for 12 months, rather than stop and think what they will want for the garden. If it is Flower or Vegetable Seeds, Plants, Bulbs, or anything in this line, MAKE NO MISTAKE this year, but send 10 cents for VICK'S FLORAL GUIDE, deduct the 10 cents from first order, it costs nothing. This pioneer catalogue contains 3 colored plates. \$200 in cash premiums to those sending club orders. \$1000 cash prizes at one of the State Fairs. Grand offer, chance for all. Made in different shape from ever before; 100 pages 8½x10½ inches. JAMES VICK, SEEDSMAN, Rochester, N. Y.

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Seeds, Plants, Etc., Continued on Pages 130-131.



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Is from a photograph taken while at  
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It is Cheaper and More  
Expeditions.

One Traction Engine will do the  
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Best's Traction Engine have been  
in practical use for over two years,  
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grain, one of which is now hauling  
cane in the Sandwich Islands.

It will do the work of  
100 Horses,

Plowing reduced to a minimum  
cost, and from 35 to 45 acres plowed  
each day at an expense of 50 cents  
to 60 cents an acre.

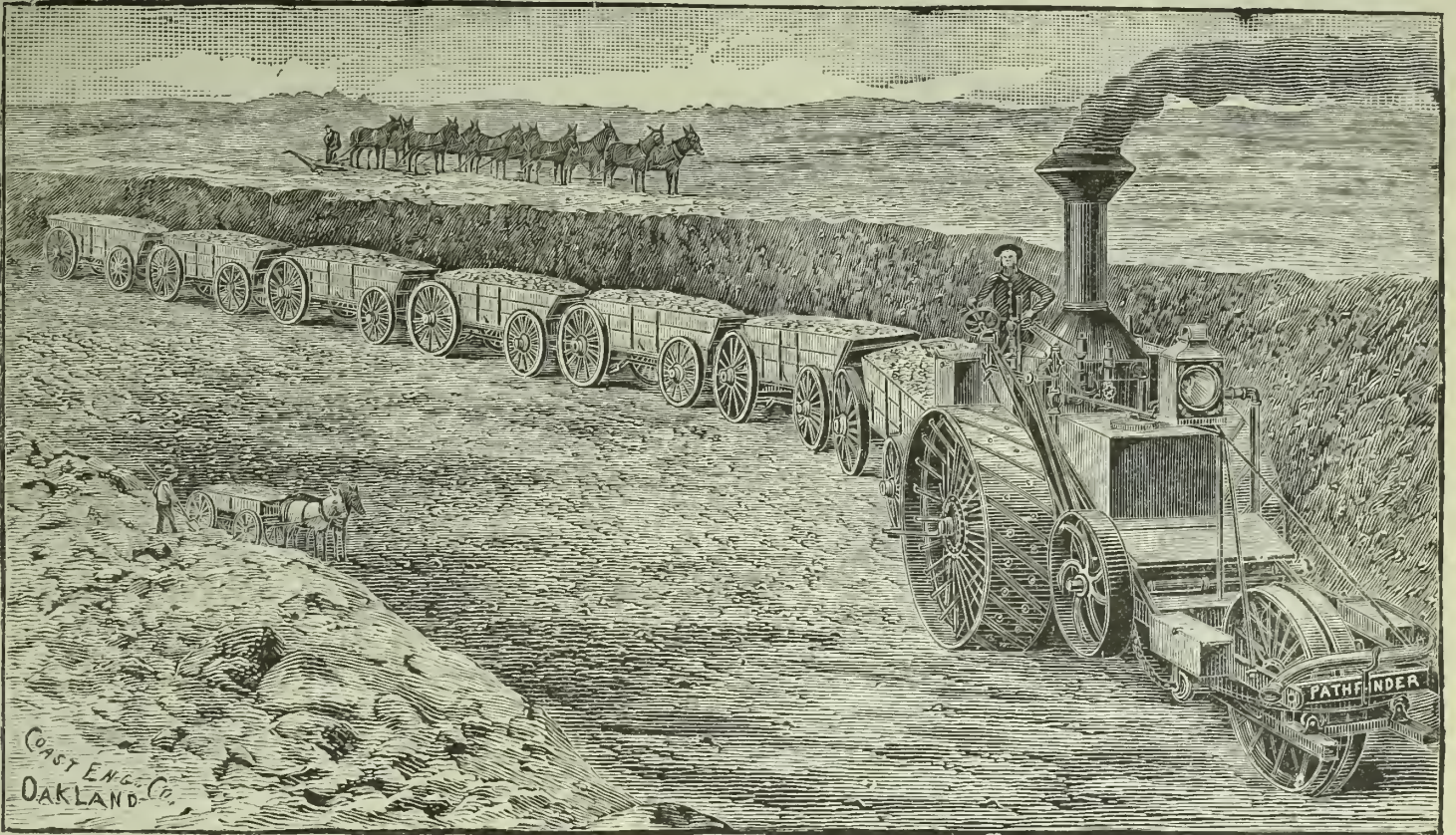
Three sizes built, 30, 40 and 50-  
horse power, and

24 Best Traction Engines  
at Work Now.

It hauls the Gang Plow and Har-  
row, propels the Best Combined  
Steam Harvester and moves along  
majestically with a train of wagons  
loaded with grain for the warehouse.

GOLD MEDAL

Awarded the Best Traction Engine  
by the State Agricultural Society at  
Sacramento, 1890.



BEST'S TRACTION ENGINE HAULING GRAVEL IN SACRAMENTO.

## BEST'S TRACTION ENGINE

IS "THE BOSS OF THE ROAD" AND "THE MONARCH OF THE FIELD."

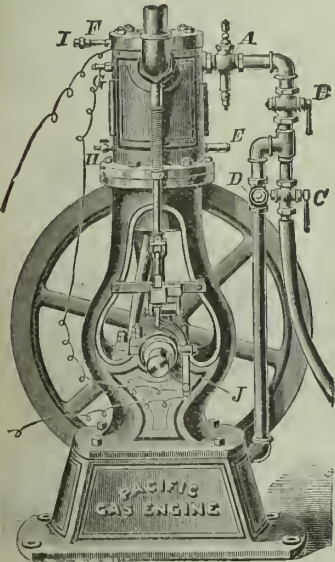
Send for Circulars. Address:

PROPRIETOR OF THE  
DANIEL BEST  
AGRICULTURAL WORKS.

**DANIEL BEST,** SAN LEANDRO  
Alameda Co., Cal., U. S. A.

## THE PACIFIC GAS OR GASOLINE ENGINE.

Patented June 17, 1890 - Nos. 430,504, 430,505, 430,506 - also in Great Britain and Other Foreign Countries.



Starts Instantly Without the Necessity of Boiler, Fire  
or Experienced Engineer.

OVER 150 IN ACTUAL OPERATION.

The Engine uses from 20 to 25 feet of Coal Gas, or  
about one-eighth of a gallon of Gasoline, per hour per  
horse-power. Is now in use for Pumping Purposes, run-  
ning Printing Presses, Small Factories, Elevators, Jewel-  
ers' Lathes, Polishers, Dairymen's, Agricultural, Mining  
and Wood-working Machinery, Well Boring and all other  
purposes requiring cheap and convenient power. Persons  
having but little space will find this the most suitable of  
all Motors.

### USE IN BOATS.

The Company makes a Specialty of  
ENGINES FOR SMALL BOATS AND LAUNCHES.

PACIFIC GAS ENGINE CO.,

230 FREMONT STREET, - - - SAN FRANCISCO, CAL.  
Send for Circular and Price List.



### HORTON & KENNEDY still continue to supply the famous ENTERPRISE WINDMILLS.

These Windmills have been advertised in and known  
by the readers of the Pacific Rural Press for over 20  
years. The Best is the Cheapest. Write for circulars  
and prices.

HORTON & KENNEDY,  
Livermore, Alameda Co., Cal.  
San Francisco Agency, JAMES LINFORTH, 87 Market St.

### BEST TREE WASH.

"Greenhank" 98 degrees POWDERED CAUS-  
TIC SODA (tests 99.8-10 per cent) recommended by  
the highest authorities in the State. Also Common  
Caustic Soda and Potash, etc., for sale by

T. W. JACKSON & CO.

Manufacturers' Agents,  
410 Market St. and 8 California St., S. F.

JAMES M. HAVEN. THOMAS E. HAVEN.  
Notary Public.

### HAVEN & HAVEN.

ATTORNEYS AND COUNSELORS AT LAW,  
No. 530 California Street,  
Telephone No. 1746. SAN FRANCISCO, CAL.

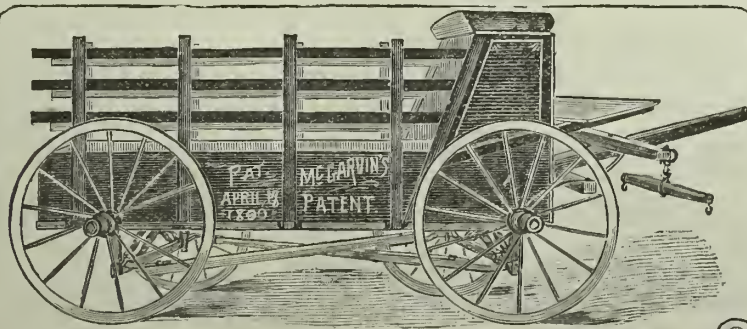
PRICE,

\$80

-TO-

\$145.

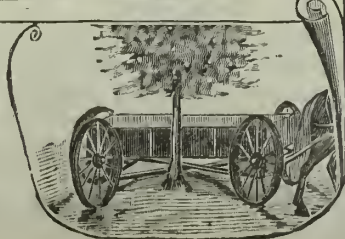
Received  
First  
Premium  
State  
Fair  
1890.



### MCGARVIN'S PATENT FRUIT TRUCK

MANUFACTURED AND FOR SALE BY

SMITH MCGARVIN, San Jose, Cal.



IT WILL PAY.

Write for our Large  
Illustrated Cata-  
logue showing fruits  
of 25 years in the hay  
field, how to build hay  
barns and sheds, and  
other valuable infor-  
mation. Also new Self-  
Compressing, Center-Trip Hay Sling, which  
takes half a load of any kind of hay or fodder at a time,  
leaving no littersings whatever, and lays it on the  
mow or on the stack, just as it lay on the load.  
Write NOW before losing address.

Louden Machinery Co., Fairfield, Ia.



### THE KRIEBEL ENGINE

And Plain Vertical Boiler.  
Mounted on a Combined Base.  
A very Cheap and Economical  
Engine.

Made of the very best material.  
2 & 3 HORSEPOWER.

Write for Prices.

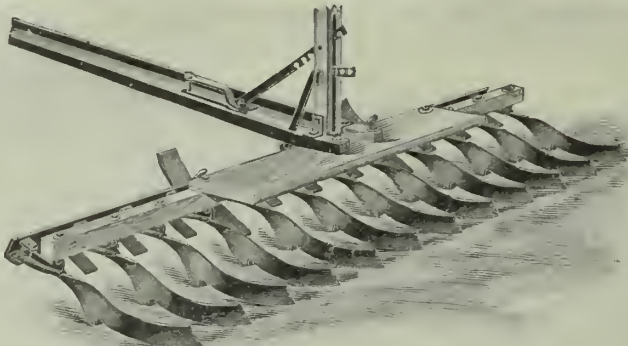
TRUMAN, HOOKER & CO.,  
SAN FRANCISCO.

TOKOLOGY Complete LADIES GUIDE  
Alice H. Stockham, M. D.  
The very best book for AGENTS. Sample pages free.  
Prepaid \$2.75. A. B. Stockham & Co., 157 La Salle St., Chicago.

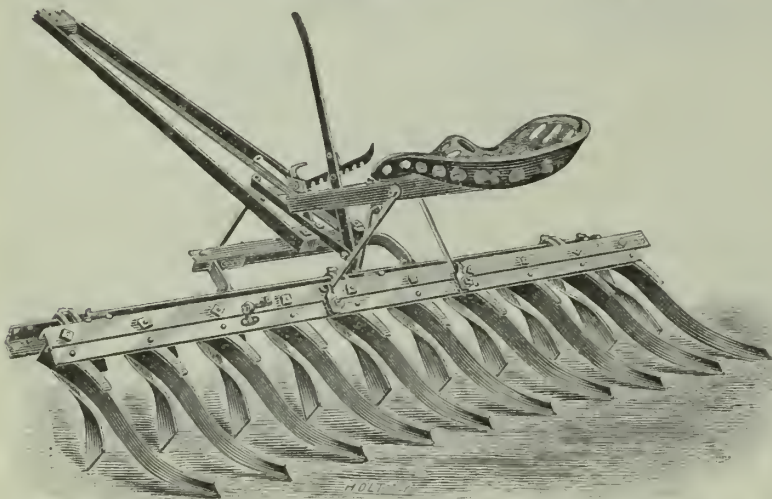


# ACME HARROWS THE ONLY TRUE FERTILIZER

Especially Adapted to  
Orchard  
and  
Vineyard  
Use.



Cut Showing "Acme" Harrow No. 14.



Cut Showing "Acme" Harrows Nos. 10 and 11.

When Worn on One End the Coulters can be Turned End for End, thus Saving Expense.

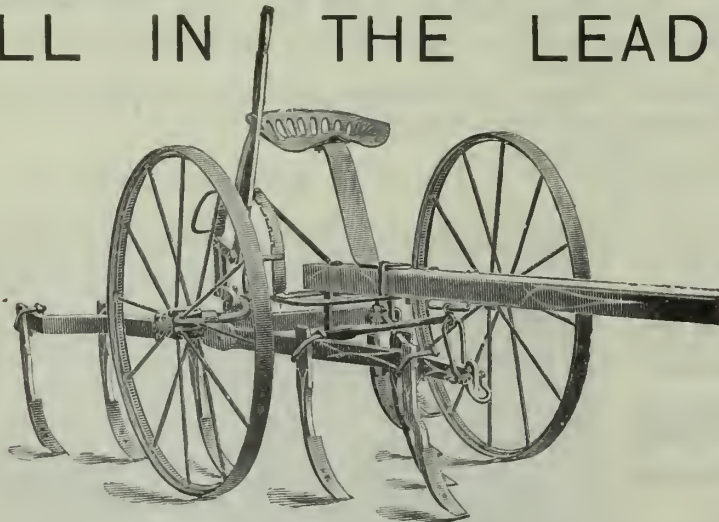
No. 14, CUTTING 7½ FEET WIDE, FOR 2 HORSES, WEIGHT 130 POUNDS.....	\$30 00
" 10, " 6 " " " 2 " " 150 " .....	35 00
" 11, " 7½ " " " 3 " " 200 " .....	42 50

Their Action is That of a Steel Crusher and Leveler, and they also Cut, Lift and Turn the Ground by Means of their Double Rows of Cast Steel Coulters.

WRITE FOR SPECIAL CIRCULARS.

**BAKER & HAMILTON, SAN FRANCISCO & SACRAMENTO.**

## STILL IN THE LEAD!



### McLEAN'S ORCHARD AND FIELD CULTIVATOR.

Simple, Strong, Superb. Guaranteed to do a greater variety of work than any other Cultivator on the Pacific Coast. Awarded first premium wherever exhibited. For catalogue and price list, address

**N. McLEAN, - - - - - WATSONVILLE, CAL.**

### JAMES LINFORTH,

37 MARKET STREET, SAN FRANCISCO.

BLMYER BELLS—CHURCH, SCHOOL & FIRE. FARM OR PLANTATION BELLS.  
ZIMMERMAN EVAPORATORS, SORGHUM MILLS, SUGAR MILLS.

COFFEE MACHINERY. RICE MACHINERY.

BUTCHER MACHINERY AND TOOLS, TANKING OUTFITS, LARD KETTLES.

FARMERS' BOILERS, HORSE-POWERS, STEAM ENGINES.

WOOD SAW MACHINES, ENTERPRISE WINDMILLS, PUMPS.

Please send for Illustrated Price List, mentioning for which goods. Our Sorghum Hand Book sent free on application. Valuable to all Sorghum growers.

N. B.—SHIPMENTS MADE DIRECT FROM FACTORIES WHEN TO THE ADVANTAGE OF PURCHASERS.

Is the GENUINE Compound of the MEXICAN PHOSPHATE & SULPHUR COMPANY prepared from GUANO and rendered soluble by the application of acids.

This manure is an ENRICHER of the soil and not, like others, a STIMULANT only; it will do for the land what no other can in rendering it PRODUCTIVE without IMPOVERISHMENT.

Its analysis is reliable; its work is immediate and effective, and for results we point with confidence to the ORCHARDS of RIVERSIDE, where it has been liberally used for the past three years.

It can be prepared to suit any land, with or without potash, as occasion may require. It is rich in PHOSPHORIC ACID, and can be made as rich in NITROGEN as the most deficient soil may exact.

## WE GUARANTEE ALL WE CLAIM FOR IT,

Viz.: TO BE THE MOST COMPLETE FERTILIZER ON THIS COAST.

For Sale in Lots to Suit by

### H. M. NEWHALL & CO.,

AGENTS.

309 & 311 SANSOME STREET, SAN FRANCISCO, CAL.

N. B.—By courtesy of the Southern Pacific Company we have low rates on this Fertilizer to all parts of the State.

## BEET SUGAR FACTORIES

### E. H. DYER & CO.,

Sugar Chemists, Enigneers and Draughtsmen, and Practical Manufacturers of Beet Sugar.  
ALVARADO, CAL.

The members of this firm have spent many months in the largest beet sugar factories of Europe, studying the details of German and French methods of manufacturing sugar from beets, and also at works of the leading manufacturers of beet sugar machinery. Having had many years' experience in manufacturing sugar from beets in California, and having fully demonstrated the feasibility of producing sugar from beets in this country in almost unlimited quantities, and in successful competition with cane sugar imported from foreign countries, we are prepared to furnish designs for factories, plans and drawings of the latest improved machinery now in use in Europe and this country. Can also furnish skilled engineers to superintend the construction of factories, and the necessary technical skill to operate the works successfully when completed. Will make personal examination of localities with regard to their fitness for the production of beet sugar, free of expense, except traveling expenses. Successful results guaranteed when the conditions are considered favorable.

## CLARK'S HARROW

SUPERSEDES THE PLOW  
Makes a  
PERFECT SEED BED.

Send for SPECIAL CIRCULAR.

HIGGANUM MANUFACTURING CORPORATION, SOLE MANUFACTURERS, HIGGANUM, CONN.  
New York Office, 189 & 191 Water St. NEW YORK.

## "P. & B." PATENT IDEAL ROOFING & PRESERVATIVE COMPOUND.

Cheapest, Most Durable and Fire-Resisting Roofing in the market.

PRESERVATIVE COMPOUNDS FOR WOOD, IRON OR METAL.  
Acid and Alkali-Proof.

## "P. & B." COATED BUILDING PAPERS.

Water-Proof and Odorless. No Deader than Common Sheathing.

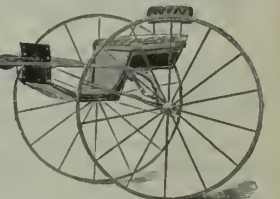
## PARAFFINE PAINT COMPANY,

116 BATTERY STREET, SAN FRANCISCO.

## THE BLUE RIBBON CART, WITH PHAETON BODY.

**\$35**

Has a seat wide enough for two, with box underneath for parcels. The body has been lengthened, is securely framed and strengthened by making the panels in one piece. Seven wheels, steel axles, and curved dash. Finished in scarlet lake or brewster green. The "Blue Ribbon" has proved to be the best built, most popular and best selling low-priced Phaeton Cart ever brought to this market. With Patent Spiral Spring Lazy Back. Shipped securely crated. Weight, 175 pounds.



### FRANK BROTHERS,

33 & 35 MAIN STREET, SAN FRANCISCO.

DEWEY & CO. { 220 MARKET ST., S. F. } PATENT AGENTS.  
Elevator, 12 Front.



## List of U. S. Patents for Pacific Coast Inventors.

Reported by Dewey &amp; Co., Pioneer Patent Solicitors for Pacific Coast.

FOR WEEK ENDING JAN. 27, 1891.

- 445,418.—CAN-LABELING MACHINE—Henry Albert, Crescent City, Cal.  
 445,151.—TREE PROP—G. F. Andrews, Riverside, Cal.  
 445,152.—TYPEWRITING MACHINE—L. E. Baker, S. F.  
 445,510.—IRRIGATING IMPLEMENT—S. S. Black, Pasadena, Cal.  
 445,327.—INVALID'S BATH—M. DeBarr, San Jose, Cal.  
 445,428.—HARNESS—J. E. Foster, Ferndale, Cal.  
 445,445.—COIN WRAPPER—W. S. Gage, S. F.  
 445,176.—ELECTRIC ARC LAMP—J. A. Hayes, Carson, Nev.  
 445,406.—TYPEWRITER ATTACHMENT—H. O. Hooper, S. F.  
 445,223.—FILLER—E. M. Knight, S. F.  
 445,224.—FILTER—E. M. Knight, S. F.  
 445,376.—SASH BALANCE—J. P. Magney, Oakland, Cal.  
 445,432.—VAPOR BATH—O. Pehrsson, Tacoma, Wash.  
 445,385.—BANJO—W. A. Todd, S. F.  
 445,342.—FUMIGATING TREES, ETC.—Wall, Jones & Bishop, Orange, Cal.  
 445,484.—CALENDAR—N. A. Wheeler, Alpowa, Wash.  
 445,213.—TYPEWRITING MACHINE—R. W. Whitney, S. F.  
 445,236.—GUARD FOR CARS—Wood & Fowler, Los Angeles, Cal.

The following brief list by telegraph, for Feb. 3, will appear more complete on receipt of mail advices:

California.—Charles W. Babcock, Crescent City, shingle or shake machine; George B. Baer, Cloverdale, separating cross head tie wires; Hiram B. Cook, San Francisco, striking bag; Lewis A. Gates, San Francisco, assignor of one-half to H. J. Postel, Sacramento, adjustable letter device; Peter Hearst, San Francisco, stove top; John H. Holloway, Santa Barbara, water closet; James T. Fish, San Francisco, fruit-pitting machine; George F. Kinkead, San Francisco, pneumatic bells; Emil Sundberg, assignor to Sundberg Brothers, San Francisco, clothes hanger; William Teneyck, Oakland, self-closing gas burner; William Weldon, San Francisco, vaginal atomizer.

NOTE.—Copies of U. S. and Foreign patents furnished by Dewey & Co., in the shortest time possible (by mail or telegraphic order). American and Foreign patents obtained, and general patent business for Pacific Coast inventors transacted with perfect security, at reasonable rates, and in the shortest possible time.

## An Important Sale of Horses.

We have had occasion from time to time to call attention to horse sales, and now we again call particular attention to one of vast importance, being the genuine closing-out sale of Irvin Ayres of the San Miguel Stock Farm. This offering will consist of stallions, colts, fillies and brood mares.

Col. Irvin Ayres has been gradually disposing of colts, as other business compels him to give up his breeding farm. Messrs. Killip & Co. are preparing the catalogue which will soon be issued. Mr. Ayres has been for some time weeding out all undesirable and unproductive animals, and in this sale nothing that is not highly bred and of individual merit will be offered. There are two gentlemen on this coast at present who are desirous of purchasing Mambrino Wilkes, and it would not surprise us to learn almost any day that he has been sold to Eastern parties. With the opportunities that have presented themselves, Mambrino Wilkes has stamped himself as a great producer of speed; in fact, it is simply remarkable what success he has had in that respect, and we feel assured that no matter where he may be taken, if given good mares, the result will stamp him as being one of the greatest sons of George Wilkes.

An advertisement elsewhere gives the particulars about the sale.

HUTCHISON'S NURSERIES.—We have received a copy of the 1891 catalogue of James Hutchison who is now in his 39th year as a California florist and nurseryman. The city of Oakland has grown until it has completely surrounded the land which was far on the outskirts of Oakland village when Mr. Hutchison established himself upon it, and in obedience to the march of progress and to secure additional room, Mr. Hutchison has established a branch at Piedmont. Recently Mr. Hutchison has sold the prominent lots which he has used for a number of years for nursery depot and floral establishment opposite the new city hall, corner of Fourteenth and Washington streets, Oakland. This sale will necessitate removal, and Mr. Hutchison has an advertisement in this issue offering his entire stock at his old stand for sale at greatly reduced rates. Our readers who visit Oakland should inspect this offering. Parties at a distance can learn of it by sending for catalogues.

A FINE FRUIT FARM FOR SALE.—Those looking for improved fruit property should note the advertisement in this issue offering for sale the Pinolito Olive Farm near Auburn, Placer county. The advertisement is so full and explicit that little more need be said except that the property is in one of our best fruit counties, where thousands of acres are already planted, markets and shipping routes established, etc. The owner is one of the leading physicians of Oakland and the property has been built up with great care and free expenditure.

## H. C. Shaw's Spading Harrow.

The necessity for thorough pulverization of the soil for growing crops of cereals or fruit trees has stimulated inventors and manufacturers to bring out a large number of implements whose especial feature is to cultivate the soil expeditiously and at the least expense. The latest implement in this line has been brought out by the H. C. Shaw Plow Works of Stockton, Cal., and is known as the "spading harrow." The wings or shares are set diagonally in the center-bar and are four in number. The peculiar feature of this harrow is that it sinks into the soil and raises the ground similar to the action of the common hand spade, leaving it in a fine state of pulverization, and, as a noted horticulturist has said, "it tickles the ground and leaves it like a garden-bed."

The large rancher has found it just the thing for working summer-fallow land; the horticulturist has found it just the thing for orchards and vineyards. It is easily handled and made of all metal. It needs no scrapers to clean it and leaves no ridges. The draft is very light and several sizes are suited to all conditions of cultivation. By reference to testimonials before us, we have the evidence of the shrewdest and most experienced farmers and orchardists in the country as to the merits of this spading harrow. It is a triumph and will be welcomed by thousands of our industrial men who expect to be compelled to do a great deal of cultivation this year in their orchards and vineyards to bring on the evaporation necessary to the growing of fruits and vines.

Parties interested would do well to send for circulars having a full description of this spading harrow, to the H. C. Shaw Plow Works, Stockton, Cal.

## O'Reily's Stables.

About a year ago we gave a short description of Mr. O'Reily's stables at Petaluma. Our reporter looked in upon them one day last week and found a fine string of the fashionably bred horses. At the head was the stallion, Alto, six years old, 15 hands high, by Anteo, dam Emma Taylor, by Alexander. This horse has improved very much during the last year, and is considered one of the best stallions in Sonoma Co. In his stud is a very fine Dawn colt, three years old, and Emma Valo, a three-year-old mare of the Hambletonian stock that gives great promise. A yearling colt by Alto Mr. O'Reily believes to be one of the best in his string. Mr. O'Reily is a leading merchant in Petaluma, and has concluded that merchandise and horse-raising do not fit well together, and will soon offer his entire stock for sale.

## Gill's Nurseries.

This well-known and old-established firm offers for the spring of 1891 an extra large and fine assortment of fruit, shade and ornamental trees and flowering shrubbery, consisting in part of camellias, azaleas, palms, magnolias, bamboos, holly, pines, cypresses, laurustinus, and in fact everything suitable for garden, orchard, hedge or sidewalk planting. Their stock of roses is larger and better than ever before offered, and their new seedling rose, "Mrs. Cleveland," of which a description and engraving appeared some time ago in the PACIFIC RURAL PRESS, has proven more than satisfactory.

Mr. Gill has long been known as having the finest selection of roses in California, and parties who wish anything in this line, or anything pertaining to the nursery business, should not fail to address E. Gill, nurseryman, Oakland, Cal. His advertisement appears in another column.

## P. J. Keller &amp; Co.

This old and well known firm have just opened an attractive floral depot at 510 and 512 Seventh St., Oakland. From their extensive nursery on Piedmont avenue, the new place will be kept well stocked with a choice selection of roses, plants, fruit and ornamental shade trees, bulbs, seeds, etc., while a specialty will be made of floral decorations and designs of all kinds. The long experience of this firm enables them to meet the wants of distant patrons with promptness guaranteeing satisfaction. A catalogue and descriptive price will be sent free to all addressing P. J. Keller & Co., P. O. Box 73, Oakland, Cal.

## ENLARGED PICTURES.

Mr. E. W. Melvin of Sacramento has built up an extensive business in portraying life-sized portraits copied from photographs and tints. He has a selected corps of artists and has produced some of the best work in the State. While he has aimed to produce the highest class of work, he has not fallen into the usual groove of charging exorbitant prices, and, as a result, he is, perhaps, doing the largest business in this line of any one in Northern California. Framing pictures and drawing from any kind of crayon, ink, water color or pastel, can be relied upon at Melvin's Studio, 713 K street, Sacramento, as the highest type of art and at the lowest price for first-class work.

## Little's Anti-pest.

THE GREATEST DISCOVERY OF THE NINETEENTH CENTURY.

Silver Medal Awarded by the State Fair of 1890.

This preparation is a Sure Destroyer of the SCALE, WOOLY APHIS and INSECT PESTS of any and all descriptions. It may be as freely used in the conservatory, garden or greenhouse as in the orchard or vineyard. It is non-poisonous and harmless to vegetation when diluted and used according to directions. It mixes instantly with cold water in any proportions. It is SAFE, SURE and CHEAP. No Fruit grower or Florist should be without it. Send for Circulars and Price List.

## CATTON, BELL &amp; CO.,

406 CALIFORNIA ST., SAN FRANCISCO. Sole Agents for the Pacific Coast.

COX & CO.'S CATALOGUE.—Cox & Co., seedmen, 411 to 415 Sansome St., send us a copy of their splendid Seed Annual of 1891. It is the most striking and artistic in its design and execution of any California work of the kind which we remember. In the place of honor on the cover is a bloom of the *Romneya Coulteri*, a fitting tribute to California's finest wild flower. Associated with it are portrayals of the newest poppies, sweet peas and pansies. On the last page are good colored portraits of the Barbanks and Satsuma Japan plums. Interiorly we find the catalogue replete with desirable things and the descriptions very full and satisfactory. Cox & Co. have done credit to the local seed trade by their publication.

THOMAS MEHERIN.—Mr. Meherin's old stand opposite the postoffice on Battery St., is full of life and activity and good horticultural stock these days. We happened along there the other day and concluded the city would have to be enlarged to accommodate his business in horticultural store goods and in the nursery stock produced by the California Nursery Co., in which Mr. Meherin is part owner, and local agent. Mr. Meherin's new catalogue is a large one, as required by the enumeration of his plant and tree stock. It will be found to contain all the popular sorts.

BARTELDES & CO.—Readers have noticed the name of this firm among the many seed announcements which are made from week to week in our columns. Their offering of their catalogue should be heeded. We have read the publication and find it very interesting and containing much important information.

WE CALL attention to the advertisement of C. H. Dana, West Lebanon, N. H., who offers a free sample of his excellent Stock Label, something of interest to every owner of live stock.

## FOR SALE!

## PINOLITO OLIVE RANCH!!

## FORTY-SIX ACRES OF HILL LAND

In the Town of Auburn, Placer Co.

Red soil, superimposed upon upturned, friable, decomposing slate, yielding iron and alumina, thus furnishing a soil which, as Prof. Hilgard said after his analysis, will retain moisture, will not require irrigation, and will not allow the vegetable mold to leech away; thus suited to the growth of fruit trees, especially the olive, as has been demonstrated both by the remarkable growth of the tree and the yield and the quality of oil.

It is situated only 15 minutes walk from Auburn Station—the C. P. R. R. passes along one side—and is a less distance from the Court House. Thirty acres improved and planted to olives, set at long distances for permanent growth, and other fruits planted between the rows for temporary profit, mostly peaches of three best varieties, ripening in succession; prunes, mostly Petite; plums of several varieties, as Kelsey, Japan, Shropshire Damson, etc.; figs of several best varieties; a few apples, nectarines, blackberries, etc. Two acres of table and raisin grapes, never irrigated, the vines remarkably vigorous and in full bearing. The trees, especially the 1500 olive, have all been planted with regard to permanency. About one-half of them have an orchard growth of seven years; fruited last year 300 pounds, this year nearly one ton. They are mostly Mission and Picholine, with a few trees of other choice varieties. Two crops of the olives have been pressed. The yield has been, for the first press, 14 per cent of very clear delicious table oil, and four per cent from the second press—the Picholine yielding this, of a peculiarly clear, nutty oil.

There is on the ranch a few acres of grain sown for hay; two acres of well-set alfalfa, below the Auburn ditch, which crosses one corner of the property; also a small house of four rooms and a kitchen; a well of good water; a small barn; a strong, permanent spring of soft, cold water, which wells up through the slate; a two-inch iron pipe connects the spring with an iron-bound 20,000-gallon tank, situated on a beautiful pine clad hill, 40 feet above the spring, a point which overlooks the town and gives very charming distant views, and is one of the most lovely sites for a residence to be found. The water is pumped to the tank by a duplex pump; the power, a four-horse steam engine, which furnishes power sufficient to pump, saw wood, run an olive crusher and do all needed shop work.

The land is all suited to fruit, excepting along a rocky ridge, which furnishes three very desirable residence sites, and the olive, set promiscuously, thrives finely among the rocks. The property can be conveniently divided along a sag which separates two of the high knobs, and water from the spring can be pumped to each of them.

This desirable property is now offered for sale for less than the improvements cost. The land is fenced, the title good and unencumbered. It is connected by a roadway, which is one of the improvements made, with one of the principal streets of Auburn.

The sale will convey the entire plant, furniture in the house, all utensils, etc. If sold before April 1st the sale will include the coming crop. If later, the crop will be reserved, unless otherwise by special agreement. If desired, one-half the purchase money can remain five years, secured by mortgage at eight per cent. For price and any further information desired, address

A. H. AGARD,

No. 1259 Alice Street, - - Oakland, Cal.

## C. L. HASKELL,

Wholesale and Retail Dealer in

HARNESS, SADDLES, BRIDLES, WHIPS, SPURS, BLANKETS,

No. 10 Bush Street, and Market Street, one door below Battery Street, San Francisco.

DEWEY &amp; CO., PATENT AGENTS, 220 Market St., San Francisco. Elevator, 12 Front St.

## Educational.

## Bowens Academy,

University Ave., Berkeley, Cal.

PREPARATORY, COMMERCIAL AND ACADEMIC Classes. References to parents of pupils who have entered the University from this School. Send for Circular. T. S. BOWENS, B. A., Head Master.

## CHESNUTWOOD'S BUSINESS COLLEGE SANTA CRUZ, CAL.

BEST EQUIPPED ON THE COAST. INDIVIDUAL instruction. No classes. Ladies admitted to all departments. Board and room in private families, \$18 per month. Tuition, six months, \$42. J. A. CHESNUTWOOD, Box 43, Santa Cruz, Cal.

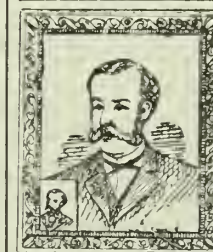
## THE PIONEER COMMERCIAL SCHOOL.

Established 1863. **PACIFIC Business College,** 320 POST ST. SAN FRANCISCO. Oldest and Best.

LIFE SCHOLARSHIPS, \$75. NO VACATIONS. DAY AND EVENING SESSIONS. Ladies admitted into all Departments. Address: T. A. ROBINSON, M. A., President.

## HEALD'S BUSINESS COLLEGE, 24 POST ST., S. F.

FOR SEVENTY-FIVE DOLLARS THIS College instructs in Shorthand, Type Writing, Book-keeping, Telegraphy, Penmanship, Drawing, all the English branches, and everything pertaining to business, for six full months. We have sixteen teachers, and give individual instruction to all our pupils. Our school has its graduates in every part of the State. SEND FOR CIRCULAR. E. P. HEALD, President. C. S. HALEY, Secretary.



## Enlarged Pictures.

Beautiful Life-Size Portraits copied and enlarged from photographs and tints; small originals of any kind in crayons, water colors, ink, oil or pastel. A fine corps of artists. The finest and most artistic work. Lowest prices. Satisfaction guaranteed. Framing pictures a specialty. Reference: RURAL PRESS.

E. W. MELVIN, 718 K Street, - SACRAMENTO, CAL.

## PROTECT YOUR TREES FROM SUNBURN, BORERS, RABBITS, ETC.,

By Using the Pacific Tree Protector.

Waterproof, Adjustable &amp; Convenient. Saves Time, Trouble &amp; Expense.

No. 1 Tared Felt, Vermin and Waterproof, good for 3 yrs, 7x16, \$2 @ 100.  
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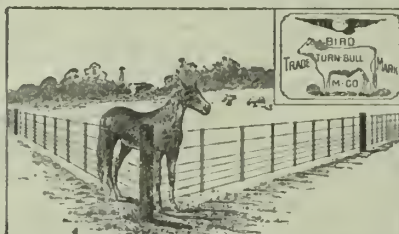
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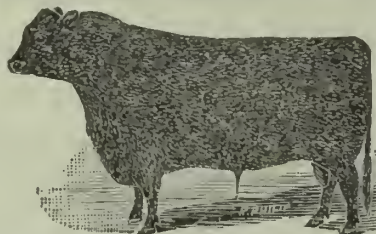
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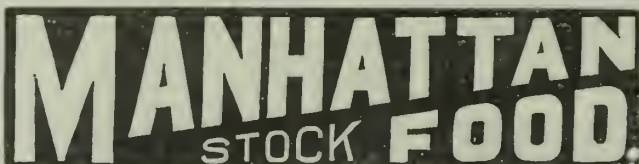
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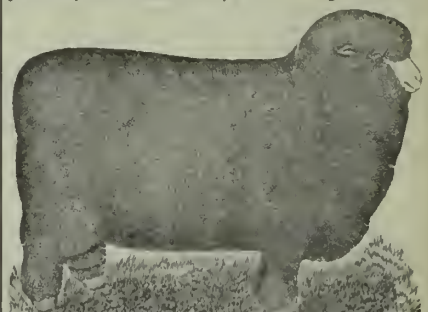
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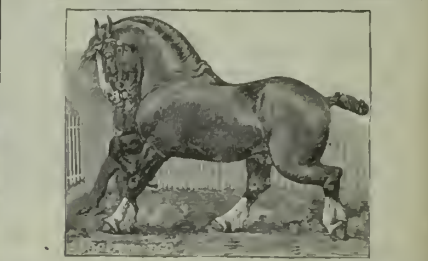
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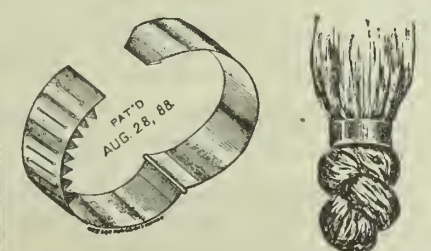
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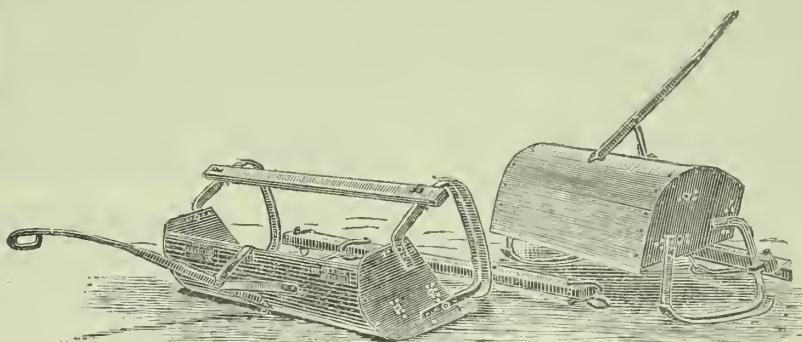
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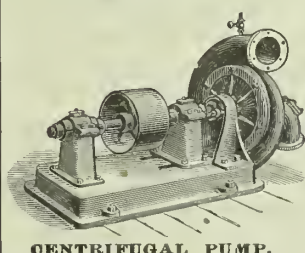
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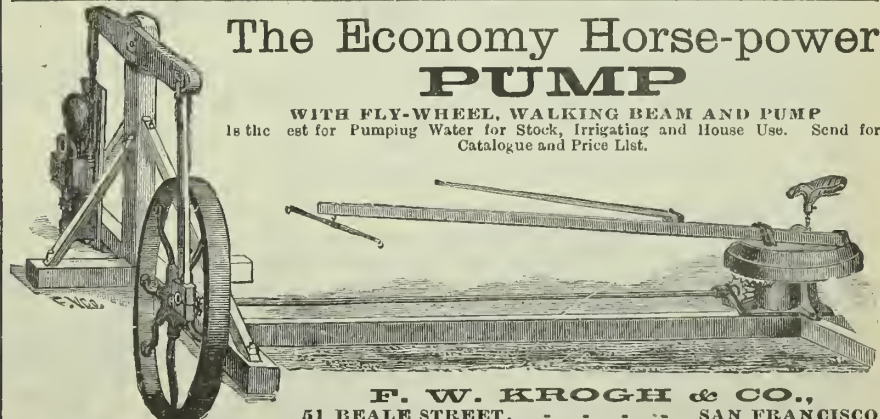
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Free Coach to and from the House.

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## S. E. MARKET REPORT

## Market Review.

## DOMESTIC PRODUCE, ETC.

SAN FRANCISCO, Feb. 4, 1891.

Trade in farm products is more or less restricted, owing largely to reduced supplies and uncertain weather. Rains on last Sunday did a large amount of good, which is supplemented by moist, cool weather. Growing crops never looked better. The grain plants have rooted well, which encourages all in the belief of a large yield, even with light rains in the spring. The money market continues to grow easier, although no great pressure to place funds will be made until after assessment tax day. The European wheat markets shaded off slightly. At the East futures have been higher, while in this market they ruled lower. The following is to-day's cablegram:

LIVERPOOL, Feb. 4.—Wheat—Downward tendency. California spot lots, 75 6d to 75 10 1/2d; off coast, 38s 3d; just shipped, 38s; nearly due, 38s 3d; cargoes off coast and on passage, steady; Mark Lane wheat, quiet; French country markets, firm; wheat and flour in Paris, quiet.

## Foreign Grain Review.

LONDON, Feb. 2.—The *Mark Lane Express*, in its review of the British grain trade, says: English wheats declined 6d; foreign are steady. English oats advanced 6d. American corn is firmer. At today's market prices were firmer, owing to symptoms of renewed frost. Flat corn is scarce and is higher. Round corn advanced 6d.

## Liverpool Wheat Market.

The following are the closing prices paid for wheat options per cwt. for the past week:

	Feb.	Mar.	Apr.	May.	June.	July.
Thursday.....	75 10 1/2d	76 10 1/2d	77 10 1/2d	78 10 1/2d	79 10 1/2d	77 10 1/2d
Friday.....	75 10 1/2d	76 10 1/2d	77 10 1/2d	78 10 1/2d	79 10 1/2d	77 10 1/2d
Saturday.....	75 10 1/2d	76 10 1/2d	77 10 1/2d	78 10 1/2d	79 10 1/2d	77 10 1/2d
Sunday.....	75 10 1/2d	76 10 1/2d	77 10 1/2d	78 10 1/2d	79 10 1/2d	77 10 1/2d
Monday.....	75 10 1/2d	76 10 1/2d	77 10 1/2d	78 10 1/2d	79 10 1/2d	77 10 1/2d
Tuesday.....	75 10 1/2d	76 10 1/2d	77 10 1/2d	78 10 1/2d	79 10 1/2d	77 10 1/2d

The following are the prices for California cargoes off coast, nearly due and prompt shipments for the past week:

	O. C.	P. S.	N. D.	Market.
Thursday.....	39 00d	38 30d	38 80d	Easy.
Friday.....	39 00d	38 30d	38 80d	Quiet.
Saturday.....	39 00d	38 30d	38 80d	Steady.
Sunday.....	39 00d	38 30d	38 80d	Quiet.
Monday.....	39 00d	38 30d	38 80d	Steady.
Tuesday.....	39 00d	38 30d	38 80d	Firm.

## Eastern Grain Markets.

The following shows the closing prices of wheat at New York for the past week, per bushel:

Day.	Feb.	Mar.	Apr.	May.	June.	July.
Thursday.....	109 1/2	109 1/2	109 1/2	109 1/2	109 1/2	109 1/2
Friday.....	109 1/2	109 1/2	109 1/2	109 1/2	109 1/2	109 1/2
Saturday.....	109 1/2	109 1/2	109 1/2	109 1/2	109 1/2	109 1/2
Sunday.....	109 1/2	109 1/2	109 1/2	109 1/2	109 1/2	109 1/2
Monday.....	109 1/2	109 1/2	109 1/2	109 1/2	109 1/2	109 1/2
Tuesday.....	109 1/2	109 1/2	109 1/2	109 1/2	109 1/2	109 1/2

The closing prices for wheat have been as follows at Chicago for the past week, per bushel:

Day.	May.	June.	July.	Aug.
Thursday.....	93 1/2	93 1/2	93 1/2	93 1/2
Friday.....	93 1/2	93 1/2	93 1/2	93 1/2
Saturday.....	93 1/2	93 1/2	93 1/2	93 1/2
Sunday.....	93 1/2	93 1/2	93 1/2	93 1/2
Monday.....	93 1/2	93 1/2	93 1/2	93 1/2
Tuesday.....	93 1/2	93 1/2	93 1/2	93 1/2

NEW YORK, Feb. 4.—Wheat—\$1.10 1/2 for March, \$1.08 1/2 for May, \$1.06 1/2 for June, \$1.02 1/2 for July, and 99 1/2 for December.

CHICAGO, Feb. 4.—Wheat—96c for May and \$1.00 1/2 for July.

## The Dried Fruit Trade.

NEW YORK, Jan. 29.—A carload of California dried peaches and prunes was shipped from this market to Chicago yesterday, and a carload of peaches went to Philadelphia.

California fruit sales are reported at the following prices: Hops—Horsehoe layer raisins, \$2.25 per box, spot; prime quality 3-crown raisins, 6 1/2c, spot; 2-crown, 5 1/2c, spot; choice evaporated peaches, 16c and upward; the same goods were 15 1/2c recently.

NEW YORK, Jan. 30.—California prunes have been selling in moderate quantities to a fair extent the past few days.

There is some evidence that the condition of the market for competing foreign goods is causing more interest to center in the California product, and prices for the latter, as compared with those current for French and Turkish fruit, are comparatively low. Still, no signs are visible of anything in the nature of speculative lines, and there were hardly sufficient sales to reveal the strength of the statistical position. Sales are noted of prime goods at 11 1/2c for 60s to 80s, equal parts, in boxes; also 90s at 10 1/2c, 70s at 11c, and 40s at 11 1/2c, from first hands. At present California 60s and 90s are quoted at only 1/2c per pound above the same sizes of French prunes.

NEW YORK, Feb. 1.—Raisins are dull, weak and irregular, with merely enough grocery demand to show low prices for heavy storings of common to good. Strictly choice named with some confidential outlook; best 3-crown boxes, faced, \$1.65@1.75. Recent sale—1600 of best sound quality, \$1.40; plain, \$1.60, faced London, \$1.85@2.25. Dealers aim to raise the cooking demand with free offerings. A good stock of 5 1/2c@6 1/2c prunes going out favorably, but not in a large volume. The market seems to be recovering from the stagnation which has more or less prevailed through the extravagant views of shippers early in the season. Rates are now only 1 1/2c@1 1/2c above French, a condition that should stiffen the situation. Prices run close together; four sizes prime goods 11 1/2c, while forties are only 12 1/2c. Unpeeled peaches are going out freely, spot and for other cities tending higher; fair to prime, 13 1/2c@15c; peeled, 30c; moderate way. Apricots are firm; 17c@20c for boxes; 16c@19c for bags. Eureka canned plums sold at 2c.

NEW YORK, Feb. 2.—The situation of the market in California raisins is without the slightest sign of improvement. London Layers, the well-known brand, have been sold as low as \$1.80, and some of the finest in the market at \$2.25, while stock considered a trifle off is offered at \$1.75. Correspondingly low figures are named on loose raisins in boxes. The bag stock has also depreciated. From the line out of which sales were made at 6 1/2c for Three-Crown

and 5 1/2c for Two-Crown early in the week, transactions were recorded Saturday at 6c and 5c respectively. The goods are not claimed to be first-class in every particular, but a slight inferiority is no offset to the reduction in price. In some quarters it is intimated that the stock of California goods in this market is nearer 100 than 75 carloads.

California prunes moved off in a quiet way to a very fair extent the past week. Stocks here are comparatively light at present. In most quarters a confident feeling as to the future of the market for peaches is manifested.

## Eastern Wool Markets.

NEW YORK, Jan. 30.—*Bradstreet's* says: The market this week shows considerable improvement in point of activity, though it cannot be said that it has ceased to be almost entirely professional in character. Apprehensions that were caused by attempted legislation of a disturbing nature have been allayed, and at the same time the prospects of action on the Silver Bill at the present session of Congress have decreased day by day. These developments have measurably removed the uncertainty as to the future to which the dullness which overspread the market last week was mainly due. Leading operators and the street have therefore once more shown a willingness to take action, and have consequently contributed a fair volume of speculative trading.

NEW YORK, Feb. 1.—New York wool sales for the fortnight were 781,000 lbs domestic, 1,455,000 lbs foreign and 7000 lbs of camel's hair Noils. The best run of trade for desirable Territorial at 18 1/2c. Taking tone from New England, the buyers will not listen to a fractional advance while long lines of goods are yet unmarketed. The London market opened firm. Boston's fortnight's sales show an unabated demand on all grades and moving marked activity in Territorial and California. Sales are 5,770,000 lbs domestic and 1,000,000 lbs foreign. Manufacturers pay only full at late ranges, and sellers cannot well expect more, as many woolen fabrics have not more than responded to the current cost of raw. Philadelphia reports the stock quite low, and all the recent business at full rates and no advance.

## Fruit Freight Eastward.

The Sacramento *Bea* says:—"So far as deciduous fruits are concerned no change from last year's tariff has been made, nor will be until the time for the movement of that crop approaches. A new tariff on citrus fruits went into effect on the 22d of the present month. Last year the rate by freight train in refrigerator cars to the Missouri river was \$1.12 1/2 per hundred in car-load lots, and to Chicago and Mississippi points, \$1.25. By passenger train the rate to the Missouri river was \$2.25, and \$2.50 to Chicago and Mississippi points. The new tariff to the Missouri river is \$1.25 per hundred per freight train in refrigerator car, and by passenger train to Missouri river and Chicago and Mississippi river points, \$2.50 and \$2.75 per hundred respectively."

## Miscellaneous.

NEW YORK, Feb. 1.—Few spot hops are moving. Holders are not pressing any grades. Brewers pay 32c@33c. It is rumored that interior sales have been made for export account. The London market is strong. The California Hop Exchange is located on Pearl street. One hundred bales of the '91 crop were offered at 25c; new State Range, 30c@35c; Pacific, 30c@35c.

California jellies are seeking a market, with favorable prospects, assisted by the scarce and high canned fruits.

Honey is more freely offered; 7c for light amber. Mustard seed quotable at 3 1/2c.

## Local Markets.

	Buyer Season.	Seller 1891.	Buyer 1891.	Seller 1891.
Thursday.....	151 1/2	112 1/2	151 1/2	112 1/2
Friday.....	150 1/2	112 1/2	150 1/2	112 1/2
Saturday.....	149 1/2	111 1/2	149 1/2	111 1/2
Monday.....	150 1/2	112 1/2	150 1/2	112 1/2
Tuesday.....	150 1/2	111 1/2	150 1/2	111 1/2

\*After August.

	Buyer Season.	Seller 1891.	Buyer 1891.	Seller 1891.
Thursday.....	149 1/2	149 1/2	149 1/2	149 1/2
Friday.....	148 1/2	148 1/2	148 1/2	148 1/2
Saturday.....	148 1/2	148 1/2	148 1/2	148 1/2
Monday.....	148 1/2	148 1/2	148 1/2	148 1/2
Tuesday.....	148 1/2	148 1/2	148 1/2	148 1/2

BAGS—The market is quiet, but with a strong undertone. For May-June delivery standard-sized hand-sewed are quoted at 6 1/2c@6 3/4c.

BARLEY—The sample market has held strong under light supplies and a good demand. In futures, a fair amount of business has been done. Considerable cross-ordering is being done on Call to break prices. The following are the reported sales made on to-day's Call:

Morning Session: Buyer 1891—100 tons, \$1.49 1/2; 100, \$1.49 1/2. Buyer Season—100 tons, \$1.49 1/2; 600, \$1.49. Seller 1891—100 tons, \$1.10 1/2; 600, \$1.10 1/2. Afternoon Session: Buyer 1891—100 tons, \$1.49 1/2. Buyer Season—100 tons, \$1.49 1/2. Seller 1891—100 tons, \$1.11 1/2; 600, \$1.11 1/2.

BUTTER—The market is barely steady. Receipts are freer, while the demand is not enlarging. Pickled is about out of market.

CHEESE—Receipts continue light, while the demand is free. Choice new mild is wanted and commands high figures.

EGGS—The market is weaker under increasing receipts. A larger consumption is looked for during the Lenten season, but then receipts are expected also to be large.

FLOUR—The market is essentially unchanged.

WHEAT—There has been a continued free movement, with slightly higher prices obtainable. In futures, trading on Call has been light. The little business done was chiefly cross-orders, so as to keep prices down. The way in which the Call Board transactions is said to be worked, is against farmers. Until this system of gambling was inaugurated, grain always brought more money. The following are the reported sales made on Call:

Morning Session: Buyer 1891—100 tons, \$1.47 1/2; 100, \$1.47 1/2; 1100, \$1.47 1/2. Buyer Season—600 tons, \$1.41 1/2; 900, \$1.41 1/2; 700, \$1.41 1/2. Afternoon Session: Buyer 1891—100 tons, \$1.47 1/2; 100, \$1.47 1/2; 200, \$1.47 1/2. Buyer Season—200 tons, \$1.41 1/2; 300, \$1.41 1/2.

## Market Information.

## Produce Receipts.

Receipts of produce at this port for the week ending Feb. 3d, were as follows:

Flour, qr. sks. ....	98,979	Middlings, sks. ....	2,353
Wheat, ctls. ....	230,198	Alfalfa, " ....	211
Barley, " ....	20,509	Chicory, bbls. ....	191
Rye, " ....	.....	Broomcorn bbls. ....	420
Oats, " ....	13,520	Hops, bbls. ....	2
Corn, " ....	2,861	Wool, " ....	143
*Butter, " ....	787	Hay, tons. ....	1,478
do bxs. ....	75	Straw, " ....	62
do bbls. ....	.....	Wine, gals. ....	224,940
do kegs. ....	.....	Brandy, " ....	10,055
do tubs. ....	.....	Raisins, bxs. ....	1,000
do 1/2 bxs. ....	282	Honey, cs. ....	138
†Cheese, ctls. ....	261	Walnuts, sks. ....	115
do bxs. ....	42	Flaxseed, " ....	822
Eggs, doz. ....	48,090	Mustard, " ....	115
do " Eastern. ....	.....	Almonds, " ....	11
Beans, ctls. ....	3,240	Peanuts, " ....	.....
Potatoes, sks. ....	21,721	Popcorn, " ....	2
Onions, " ....	1,483	Beet sugar, bbls. ....	306
Bran, " ....	6,582	do do sks. ....	453
Buckwheat, " ....	.....	.....	.....
*Overland 193 ctls. ....	.....	†Overland 300 ctls. ....	.....

## Cereals.

The local wheat market has held strong throughout the week. Contrary to general belief, the rains last Sunday did not set values off. The bears were out in full force on Monday, but being unable to break prices, they retired in good order. The price of wheat is very low—too low for the interest of farmers, and any material decline below present ranges invariably brings in a class of investment buyers. The latter have made money by bringing around \$1.30 for No. 1 White shipping and holding for an advance. The English markets shaded off, but toward the close have a stronger tone. The strength of the market is largely due to the smaller stocks held Jan. 1st in the 12 leading ports. At the above date the quantity was 1,930,080 qrs, against 1,877,126 qrs at the same date in 1890. Silver legislation is being watched closely by large operators; indeed there has been and still is quiet buying of wheat in expectation that the metal will be remonetized, in which event the higher cost of Russian and Indian wheat delivered in England and other importing countries will enhance the value of American wheat. Vessels on berth continue to receive quick dispatch. Receipts of Oregon and Washington wheat are large. Advices from up north report the bulk already marketed. The following estimates, in quarters of 8 bushels (60 lbs.) each, may be accepted as embodying eventual conclusions as to the yields of wheat in 1890. The Canadian harvest, which is not given in these estimates, is currently believed to have been between 4,000,000 and 5,000,000; the United States, 50,000,000; France, 39,000,000; Russia, 28,000,000; India, 27,000,000; Austria-Hungary, 26,000,000; Italy and Sicily, 16,830,000; Spain and Portugal, 16,000,000; Germany, 13,000,000; the Ottoman Empire, 10,000,000; Roumania, Serbia, etc., 8,000,000; Australasia, 5,000,000; Belgium and Holland, 4,000,000; and La Plata, 2,500,000 qrs.

Crop advices in this State continue to be uniformly good. All sections report the plant doing remarkably well. Many places reporting grass short and cattle suffering for food, report the fields of grain looking fine. Owing to the scarcity of natural feed and the high price of hay, there will unquestionably be a larger acreage of seeded land cut for hay than for several years past.

Barley met with a slight shading in prices, owing to rains, but the decline has been recovered. The consumption for feed is exceedingly large. More rolled or ground barley is being fed than before known. This is due to poor pasture for stock. The stock in this State is light, but the acreage seeded is large. Up north the supply is far from large, and under continued free shipments to this port, prices show more strength in Oregon and Washington.

Oats are in liberal supply. The very heavy receipts from up north, and fears that the supply to draw from is larger than claimed, are creating a weak market with us. Buyers are disposed to bid lower, and even at concessions do not appear inclined to anticipate their wants.

Corn is steady, with a firm tone. Continued dry weather is in favor of holders.

Rye and buckwheat are unchanged.

## Feedstuff.

Ground feed continues in good demand with rolled barley the favorite with feeders. Bran, middlings and rolled barley are selling at higher figures, while feed-meal shows more strength. The scarcity of natural feed causes ground feed to be more sought after by dairy and stock men.

Hay is very strong. The Southern Pacific railroad is following its usual tactics of regulating the freight tariff so as to take the cream. From all points in California the freight on hay is raised, while from the State of Nevada, which has a large surplus, the tariff is lower. Higher freights in this State and lower from Nevada, admit of farmers in the latter State marketing their crops in California. The supply in this State is very light, and as grass is short, there is freer feeding of hay and straw. A large acreage has been seeded to grain which will be cut for hay. This is necessitated owing to the large increased quantity required for feed and the demand steadily enlarging.

## Live-stock.

Scant feed in this State is causing freer marketing of cattle than otherwise would obtain, while Arizona is a liberal seller. Prices have shaded off, owing to large slaughterers not caring to be over-supplied during Lent and also on tax-assessment day. Mutton sheep are scarce and high. More farmers than ever before have bought a few head to have on their farms, which not only speaks well in favor of diversified farming, but which will also give us a new source of supply to draw from in coming seasons. The sheep wanted by farmers are more for carcass than for wool. Hogs are wanted at a slight advance. Milch cows are slow of sale. Advices from many localities report stock cattle poor.

The market for dressed cattle is quoted as follows [to obtain the price on foot, take off from the price for stall-fed one-third to one-half, according to the nature of the feed and time fed; and for grass-fed take off the price from 40 to 60 per cent]:

HOGS—On foot, light grain fed, 4 1/2c@5c lb.;

dressed, 7 1/2c@8 1/2c lb.; heavy, 4 1/2c@4 3/4c lb.; dressed, 6 1/2c@7 1/2c lb. Stock hogs, 3 1/2c@4c lb. BEEF—Stall fed, 6 1/2c@7c lb.; grass fed, extra, 6c@7c lb.; first quality, 5 1/2c@6c lb.; second quality 4 1/2c@5c lb.; third quality, 3 1/2c@4 1/2c lb.; bulls and thin cows, 2c@3c lb.

VEAL—Small, 6c@7c lb.; large, 5c@6c. MUTTON—Wethers, 8c@9c lb.; ewes, 7 1/2c@8 1/2c lb.; spring lamb, 15c lb.

## Fruits.

The market is weak for poor to fair apples, firm for good to choice and strong for a real gilt-edge article. The latter must be firm, good in color and flavor and all else which go to constitute a first-class fruit. There is a fair shipping demand.

Oranges continue to come in freely. The demand is enlarging at the lower prices. Retail dealers are buying more freely owing to the better consumptive demand. The fruit this year, taken as a whole, is better than last year, both in color and flavor. Much of this is due to the better facilities and more general attention given to caring for the trees. Shipments eastward are being made with more regularity. The weather continues in growers' favor.

Dried fruits are becoming scarcer, which will make itself felt when the regular spring call sets in. Quotations are unchanged.

Raisins are in liberal supply. The market does not show any changes worthy of note. A freer call is expected in the near future.

## Vegetables.

Spring garden truck fluctuates, and will as long as the market is fed by supplies from the southern counties. When the bay counties begin to send in supplies, then prices will become more regular, admitting of quotations. Gardening is reported to be on an enlarged scale, and as the weather is favorable, large supplies will be in order.

Onions are barely steady. The receipts are free while the demand is of a hand-to-mouth character. A larger planting is reported in this State and also in Oregon.

Potatoes continue to ease off. There is a fair demand for seed, which keeps the market from breaking to pieces. Large dealers do not appear to anticipate their wants, except when offered inducements through concessions by consignees. The bulk of the stock in this city is worked off, but large supplies are reported at convenient shipping points in the interior. The acreage that is being devoted to potatoes this year is the largest ever before known. The weather is favorable to the growing crop.

## Miscellaneous.

Poultry held barely steady up to yesterday, when a stronger tone set in for the better conditioned. Scrubby stock is still hard to sell.

Beans, white kinds, are a shade higher under a good demand and light stocks. Other kinds show a hardening tendency.

Nuts outside of almonds are dull and heavy. Even almonds are slow of sale at slightly lower prices for soft-shell and paper-shell. Hard-shell have been cleaned up by nurserymen, causing better prices.

Hops are dull but strong under light obtainable supplies.

In wool there is nothing doing; assortments in this city are broken and are taken chiefly by scourers.

Honey continues scarce and high.

Exports by sea the past week aggregate as follows: Flour, bbls, Honolulu, 1089; Tahiti, 703; Central America, 140. Wheat, ctls, Liverpool, 69,639; Havre, 118,799. Barley, ctls, Honolulu, 1348; Tahiti, 383. Rolled barley, ctls, Honolulu, 3272. Dried fruits, lbs, Honolulu, 711. Hay bbls, Honolulu, 9616. Beans, lbs, Honolulu, 26,794; Victoria, 3503. Wool, lbs, Boston, 165,320. Corn ctls, Central America, 1370. Bran, sks, Honolulu, 4000. Middlings, sks, 510.

## Domestic Produce.

Extra choice in good packages fetch an advance on top quotations, while very poor grades sell less than the lower quotations.

WEDNESDAY, Feb. 4, 1891

BEANS AND PEAS.	Softshell.....	12 @ 13 1/2	
Bayo, cts. ....	3 7/2 @ 3 9/2	Paper shell.....	14 @ 15
Butter, " ....	3 00 @ 3 30	Brazil, " ....	14 @ 20
Pea.....	2 75 @ 3 15	Pecans small.....	12 @ 14
Red.....	2 75 @ 2 90	do large.....	15 @ 18
Pink.....	2 30 @ 2 45	Peanuts.....	5 @ 6
Small White .....	2 75 @ 3 05	Filberts.....	12 @ 16
Lima.....	3 75 @ 4 05	Hickory.....	12 @ 13
do Pea-hickory .....	3 75 @ 4 05	Pine nuts.....	12 @ 13
do green .....	2 25 @ 2 50	Chick nuts.....	7 @ 8
do Niles.....	1 75 @ 1 90		
Split.....	4 @ 4 50	ONIONS.	
		Silver Skin.....	2 25 @ 3 00
BROOM CORN.		POTATOES.	
Choice to Extra 70 00 @	90 00	Early Rose, aks.	75 @ 91
Fair to Good.....	52 @ 65 00	Tanal.....	75 @ 91
Poor.....	32 @ 47 50	River Red.....	70 @ 85
CHICORY.		Burbank, river.	65 @ 73
California.....	5 @ 6 1/2	do Salinas.....	1 10 @ 1 31
German.....	6 @ 6 1/2	do Petaluma.....	75 @ 90
DAIRY PRODUCE, ETC.		do Humboldt.....	1 20 @ 1 30
BUTTER.		do Oregon.....	1 00 @ 1 25
Cal. Poor to do 20 @	27 1/2	do.....	
do good to choice 35 @	35	POULTRY AND GAME.	
do do do 37 1/2 @	40	Hens, doz.....	4 50 @ 6 00
do Creamery rolls 38 @	38 1/2	Roosters, old.....	4 50 @ 5 10
do Eastern tubs 25 @	30	do young.....	5 50 @ 7 50
do do dairy.....	20 @ 25	Broilers, small 30 @	40
CREME.		do large.....	50 @
Cal, cholest.....	12 1/2 @ 13	Fryers.....	5 00 @
do fair to good 10 @	15	Ducks, tame.....	5 00 @ 6 00
do gilt edged.....	14 1/2 @ 15	do large.....	7 00 @ 8 50
Young America 13 @	15	Geese, pair.....	1 50 @ 2 00
N. York Cream.....	13 @ 15	Turkeys, Gob'tr.....	12 @ 14
Western.....	11 @ 13	Turkeys, Hens.....	14 @ 15
EGGS.		do Bressed.....	12 @ 15
Cal. ranch, doz.....	27 @ 28	Pigeons.....	1 75 @ 2 50
do do selected 29 @	35	Rabbits, doz.....	1 25 @ 1 10
do store.....	25 @ 26	Ilare.....	1 50 @ 2 10
Eastern, fresh.....	@	Quail.....	1 00 @
do selected.....	@	Snipe, English.....	2 00 @
FEED.		do Jack.....	75 @
Brum, con.....	22 00 @ 23 50	Ducks, Mallard.....	2 50 @ 3 50
Feasman.....	20 @ 23 10	do Canv'back.....	5 00 @ 5 10
Gr'd Barley.....	52 00 @ 53 50	do Sprigs.....	1 00 @
Middlings.....	25 00 @ 27 00	do Teal.....	1 00 @
Oil Cake Meal.....	60 @ 62 50	do Widgeon.....	1 00 @
Manhattan Feed.....	100 @ 75 50	do Small.....	75 @
HAY.		Geese, Gray.....	2 00 @ 2 50
Compressed.....	13 50 @ 18 50	do white.....	2 25 @ 1 50
Wheat, per ton.....	13 00 @ 18 00	Brant.....	1 00 @ 1 25
do choice.....	18 50 @	Sea Brant.....	2 00 @
Wheat and Oats 13 00 @	17 50	Honkers.....	4 00 @ 4 50
Wild Oats.....	12 50 @ 15 50	EGG FODDER.	
Tame do.....	12 00 @ 14 50	Manhattan, 3 B.....	12 @
Oats.....	11 00 @ 12 50	do.....	12 @
Alfalfa.....	11 00 @ 14 50	Cal. Bacon, ho'v'y.....	10 @ 11
Alfalfa.....	11 00 @ 13 00	do Medium.....	12 @
Straw bale.....	70 @ 80	do Light.....	13 @
FLOUR.		Lard.....	9 @ 10 1/2
Extra, City Mills 4 00 @	4 25	Cal. Sm'd Beef.....	11 @ 12
do City Mills 4 10 @	4 25	Hams, Cal.....	12 @ 13
Superior.....	3 @ 3 50	do Eastern.....	15 @ 14
GRAIN, ETC.		SEEDS.	
Barley, fed, ctd. 1 46 @	1 52 1/2	Alfalfa.....	7 1/2 @ 8
do Choice 1 53 @	1 55	do Oatary.....	2 1/2 @ 3
do Brewing.....	1 55 @	Clover, Red.....	9 @



do do Choice.. 1 57 1/2 @	White..... 17 1/2 @
do do gilded'd 1 62 1/2 @	Cotton..... 20 @
Chevalier chce 1 57 1/2 @	Flaxseed..... 2 40 @
do com to good 1 40 @	Hemp..... 3 1/2 @
Buckwheat..... 1 40 @	Italian Rye Grass 10 @
Oorn, White..... 1 32 1/2 @	Perennial..... 7 @
Yellow, large..... 1 37 1/2 @	Millet, German.. 6 @
do, small..... 1 37 1/2 @	do Common..... 6 @
Oats, milling..... 2 10 @	Mustard, yellow 2 00 @
Surprise..... 2 10 @	do Brown..... 2 1/2 @
Feed, Choice..... 2 00 @	Rape..... 2 1/2 @
do good..... 1 95 @	Ky. Blue Grass.. 25 @
do fair..... 1 85 @	Sweet V. Grass.. 75 @
do Black..... 1 80 @	Orchard..... 14 @
do do for seed 2 25 @	Hungarian..... 7 1/2 @
Rye..... 1 30 @	Lawn..... 27 1/2 @
Wheat, milling. 1 45 @	Mesquit..... 7 @
Gilt edged..... 1 42 1/2 @	Timothy..... 5 1/2 @
do fair to good 1 40 @	TALLOW.....
Shipping, choice 1 42 @	Crude, lb..... 3 @
do good..... 1 37 1/2 @	Refined..... 6 @
do fair..... 1 32 1/2 @	WOOL - SPRING, 1890
Sonora..... 1 32 1/2 @	Humb't & Men'cino 19 @
HIDES.....	Sac'to valley..... 15 @
Dry light to b'vy 9 @	Free Mountain.. 18 @
Salted..... 5 @	S. Joaquin valley 12 1/2 @
OREGON, 1890.....	do mountain..... 17 @
Cal 1890 Choice 37 1/2 @	do Giltedged..... 2 00 @
do Fair to G'd 30 @	Oregon Eastern.. 13 @
NUTS - JOBBING.	do valley..... 20 @
Walnuts, Cal. lb 8 @	North'n, choice 16 @
do Choice..... 10 @	do defective 14 @
do paper shell 11 @	Mountain Free 13 @
do Chili..... 9 @	S. Joaquin, def.. 9 @
Almonds, hd shl. 7 @	Southern do... 9 @

Fruits and Vegetables.

Choice selected, in good packages, fetch an advance on top quotations, while very poor grades sell less than the lower quotations.	WEDNESDAY, Feb. 4, 1891.
Bananas, bunch 1 50 @	2 50 @
Cranberries..... 10 00 @	11 00 @
Limes, Mex..... 6 00 @	7 00 @
do California..... 11 @	12 @
do Chili..... 50 @	75 @
Lemons, box..... 2 50 @	3 00 @
do Riverside..... 1 00 @	2 00 @
do Sicily, lx..... 6 00 @	7 00 @
do Malaga..... 50 @	75 @
Oranges..... 50 @	75 @
do *Vacaville..... 50 @	75 @
do Riverside..... 1 75 @	2 50 @
Seedling Oranges..... 1 75 @	2 25 @
do Riverside..... 1 75 @	2 25 @
do Los Angeles 1 00 @	1 50 @
Navel Oranges..... 2 50 @	3 50 @
do Riverside..... 2 50 @	3 50 @
do Los Angeles 2 50 @	3 50 @
do Duarte..... 2 50 @	3 50 @
Pineapples, doz 4 00 @	5 00 @
* Small box. † Large box.	

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PACIFIC COAST WEATHER FOR THE WEEK.

[Furnished for publication in this paper by officer in charge of branch Signal office, Division of the Pacific.]

DATE.	Olympia.	Portland.	Eureka.	Red Bluff.	Sacramento.	S. Francisco.	Fresno.	Keeler.	Los Angeles.	San Diego.
Jan. 25, Feb. 3.	Rain..... Temp..... Wind..... Weather.....	Rain..... Temp..... Wind..... Weather.....	Rain..... Temp..... Wind..... Weather.....	Rain..... Temp..... Wind..... Weather.....	Rain..... Temp..... Wind..... Weather.....	Rain..... Temp..... Wind..... Weather.....	Rain..... Temp..... Wind..... Weather.....	Rain..... Temp..... Wind..... Weather.....	Rain..... Temp..... Wind..... Weather.....	Rain..... Temp..... Wind..... Weather.....
W.	.00 44 W Cy.	.00 42 Nw Cy.	.00 50 N Cl.	.00 56 Nw Cl.	.00 56 Nw Cl.	.00 56 Nw Cl.	.00 56 W Cl.	.00 44 N Cl.	.00 56 Nw Cy.	.50 48 NE Rn.
T.	.04 46 SW Rn.	.10 44 S Cy.	.00 52 N Cl.	.00 62 Nw Cl.	.00 60 Nw Cl.	.00 58 W Cl.	.00 52 Nw Cy.	.00 48 N P C.	.00 60 SW Cl.	.00 58 W Cl.
F.	.00 58 W P C.	.00 50 Nw Cl.	.....	.00 62 S E Cl.	.00 58 S E Cl.	.00 54 SW P C.	.00 56 SW Cy.	.00 48 SW Cy.	.00 56 W Cl.	.00 58 S Cl.
S.	.00 46 W P C.	.00 46 S Cy.	.T 52 SW Rn.	.00 50 S Cy.	.00 54 S Cy.	.00 52 SW Cy.	.00 56 S Cy.	.00 48 N Cy.	.00 58 SW P C.	.00 58 SW P C.
N.	.00 32 NE Cl.	.02 32 E Cl.	.00 50 N P C.	.00 56 0 Cl.	.12 54 N Cl.	.30 52 NE Cl.	.14 54 Nw Cy.	.00 42 W Cy.	.36 52 W Cy.	.04 56 S Cy.
M.	.00 38 N Cl.	.00 38 N Cl.	.00 50 Nw Cl.	.00 58 0 Cl.	.00 58 NE Cl.	.00 58 W Cl.	.00 56 N Cl.	.00 46 S E Cl.	.00 56 W Cl.	.00 56 W Cl.
T.	.00 42 SW Cl.	.00 40 NE Cy.	.00 50 N Cl.	.00 58 0 Cl.	.00 58 N Cl.	.00 56 Nw Cl.	.00 60 S Cl.	.00 46 0 Cl.	.00 54 W Cl.	.00 62 Nw Cy.
	.04 .....	.12 .....	.T .....	.00 .....	.12 .....	.30 .....	.14 .....	.00 .....	.36 .....	.54 .....

EXPLANATION.—Cl. for clear; Cy., cloudy; Fr., fair; Cm., calm; — indicates too small to measure. Temperature wind and weather at 5 P. M. (Pacific Standard time) with amount of rainfall in the preceding 24 hours. T indicates trace of rainfall. P C, partly cloudy. Rn., rain.

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We offer 100 pounds of Raisins of extra quality for..... 7 00  
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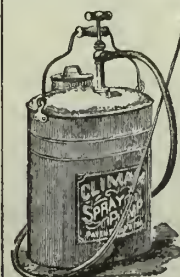
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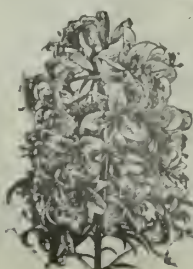
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SEMI-TROPICAL FRUITS, OLIVES  
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Fine Stock of ORANGES, LEMONS, OLIVES, NUT TREES and FIGS.  
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300,000 GRAPE VINES (Strong Roots). Small Fruits, Berry Bushes, Etc., Etc., in  
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ORNAMENTAL AND SHADE TREES, Roses, Standard Roses, Clematis, Trailing Vines,  
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FOR ALL SOILS  
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BARLEY 60 bu., CORN 100 bu. POTATOES 500 bu. per a.  
Send 8 cents for sample farm seeds and catalogue.  
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Our Catalog is the finest ever published in America.  
On Trial—35 pkgs. Earliest Vegetable Seeds, post paid, \$1.  
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1891.

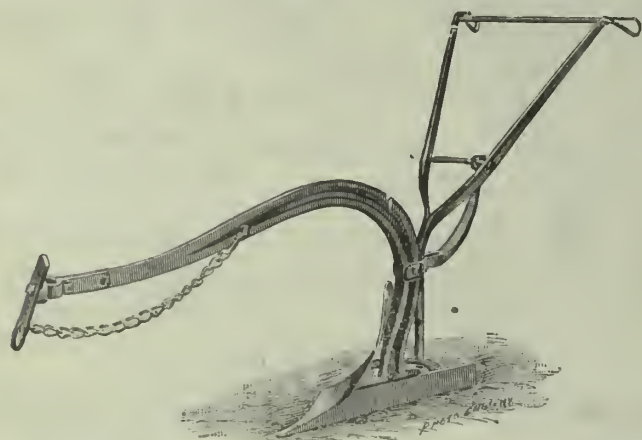
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logue is FREE as usual. A matter on second page of cover will  
interest my customers. J. J. H. GREGORY & SON, Marblehead, Mass.



# THE DEERE IMPLEMENT COMPANY'S LINE OF ORCHARD AND VINEYARD TOOLS

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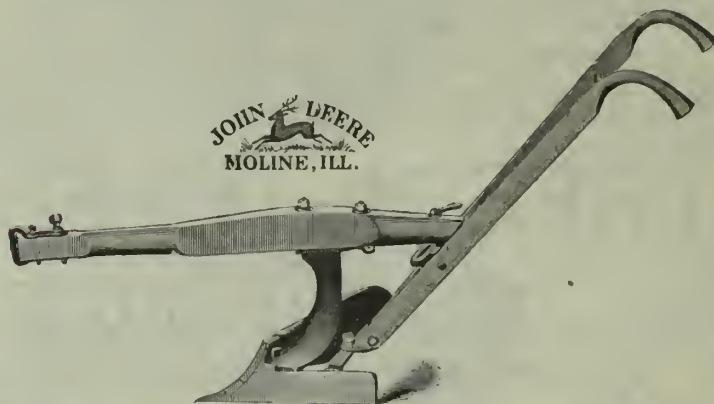
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**STEEL BEAM VINEYARD AND ORCHARD PLOW.**

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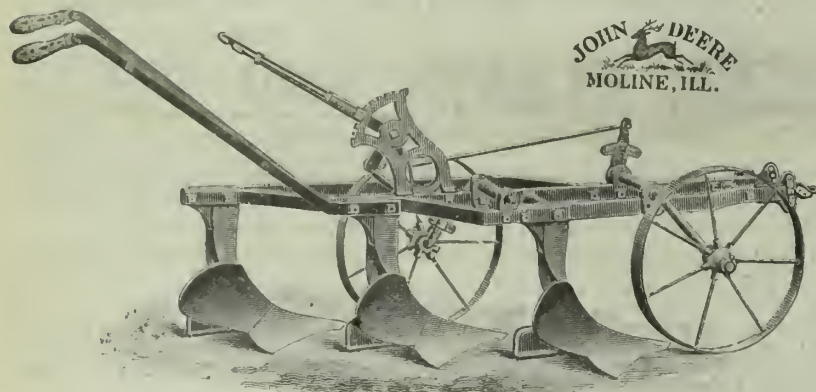
Adjustable Handles and Clevis. Sizes, 8 and 9-inch, with Steel Bottoms and 9-inch Chilled Iron Bottoms. A favorite with Vine Growers and Orchardists. A full supply of Wood Beam Vineyard Plows on hand.



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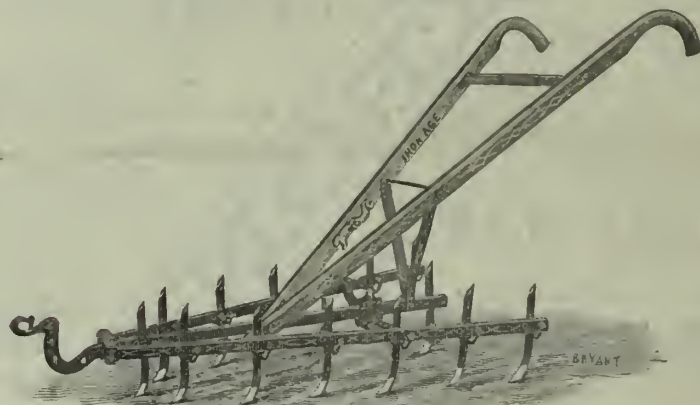
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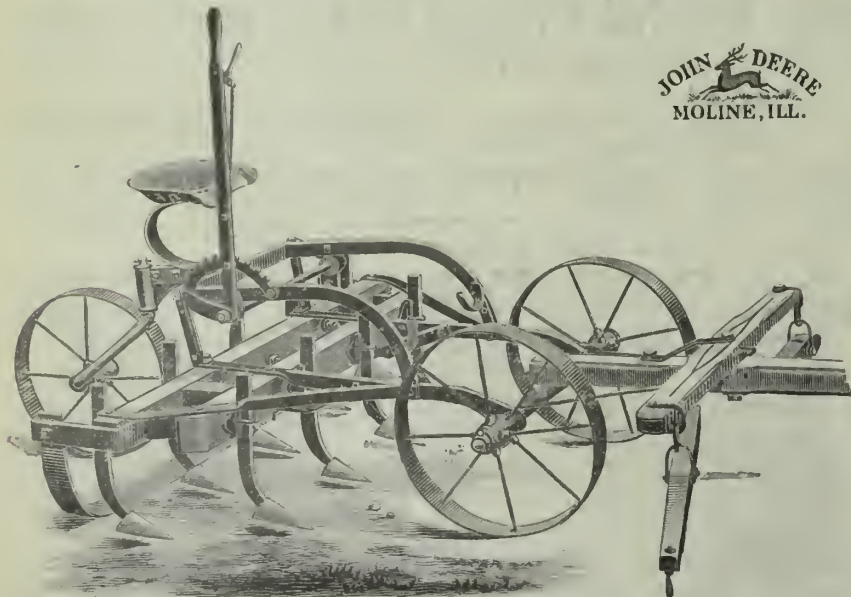
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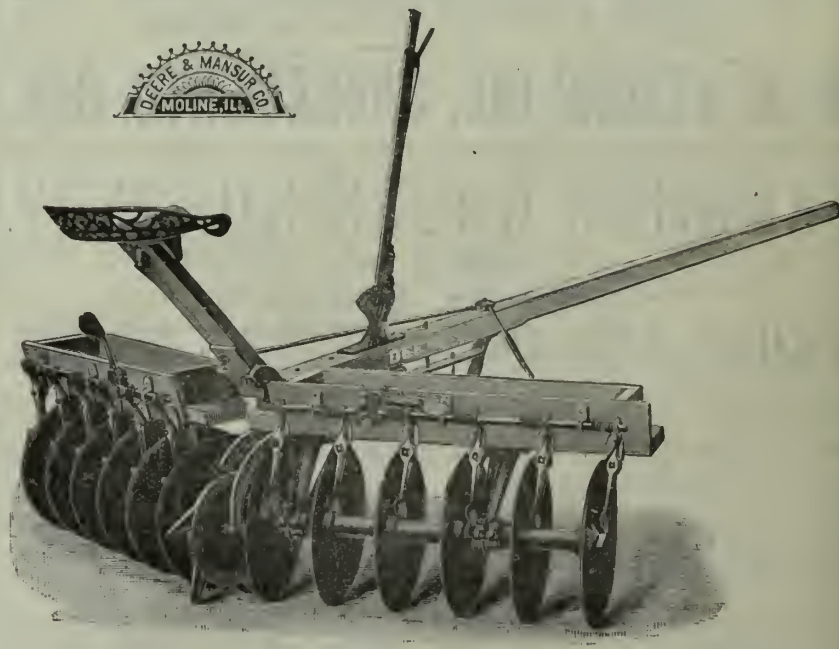
With Steel Teeth, Diamond Shape, with small Cultivator Tooth forged on one end. Movable Teeth, to permit of working close to plants without injury.

USED AS A CULTIVATOR OR HARROW.



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Made in the following sizes: 4, 5, 6, 8, 10, and 12 foot, with 16 or 20-inch Disks. The 4, 5 and 6-foot are especially adapted for Orchard and Vineyard Work.

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DEERE IMPLEMENT CO., 305 & 307 Market St., San Francisco, Cal.





Vol. XLI.—No. 7.

SAN FRANCISCO, SATURDAY, FEBRUARY 14, 1891.

DEWEY & CO., Publishers,  
Office, 220 Market St.

### Alameda County Rural Homes.

We have given home and farm scenes in many counties of the State with an idea of reflecting the progress of California and to show distant readers how delightful in character and environment are California rural homes. We have had more about the counties showing newer development than we have of the older settled regions about the bay, because the bay settlements may be conceived to be better known; but there is a danger of injustice in this because the distant RURAL reader may infer therefrom that progressive and desirable neighborhoods all lie far removed from the metropolis. To guard against this and to reflect the advance of the bay region, we propose to illustrate a few rural homes in Alameda county.

We notice in the *Illustrated Pacific States*, an entertaining monthly journal published in this city, a very interesting sketch of the Alameda valley, involving both the commercial and agricultural features thereof. The valley portion of Alameda county includes the stretch of land comprised in Eden and Washington townships, and lying, roughly speaking, between Oakland at the north and the county limits at the south, the west and east boundaries being respectively the bay of San Francisco and the crest of the Contra Costa mountains. It is one of the richest tracts of unbroken agricultural land in the State. Its length is some 25 miles, by a breadth of three or four, while on the eastern edge the adjoining foothills add a further width of nearly as much again. This region was famous in early days for the exuberant growth and luxuriance of its grasses and native grains, and was a hunter's paradise for game of all descriptions. Later it was noted as a prodigious producer of wheat and hay and vegetables. It is now renowned for its or-



ORCHARD VIEW—RESIDENCE OF E. O. WEBB.

chards and small fruit gardens, as well as for the more strictly agricultural uses of the general farmer and the raiser of vegetables. Probably one-half the whole region is fruit land, and its soil is a sandy alluvium or loam of astonishing depth, 20 and oftentimes 50 or even 90 feet being necessary to find the underlying adobe—

entirely inexhaustible. The other half is splendid grain and farming land. Along the creeks toward the bay are grown the finest potatoes, while the valley is the center of production in the State of tomatoes, cucumbers, peas, corn and other vegetables. Three-fourths of San Francisco's supply of the first-mentioned vegetables

are drawn from this source, being many thousand tons. As a rule, no irrigation is used in the region, although in the southern portion of the valley irrigation water is sometimes used, to a limited extent, in dry years.

To show the character of the homes of Alameda valley, we select two for illustration. They are not of the most pretentious, but of a class of lovely home-like establishments of which the valley contains hundreds. The upper engraving shows "Orchard View," the property of Edw. O. Webb, son of Capt. Otis Webb, the well-known pioneer of 1849. This delightful residence, located on the southeastern slope of the low hills which skirt the eastern boundary of the San Jose valley, has the advantage of an elevation which makes it both sightly and picturesque. The view from the house is realistic of the name—Orchard View, commanding as it does the wide expanse of fertile valley lands, of orchards, far reaching to the long line of the blue waters of the San Francisco bay, beyond which the ever-changing heights of Tamalpais gradually lengthen out toward the west into the low hills and lofty peaks of the Coast Range, in San Mateo county.

The place is situated 1½ miles from San Lorenzo, on the line of the C. P. R. R., and two miles from Haywards, and on the direct line of the Oakland and Haywards road. It consists of 100 acres, one-third of which is devoted to orchard, balance of place divided into smaller fields for the purpose of raising hay and pasturing horses and cattle. The house is solid and complete in every appointment for the comforts of a home, while the laundry, stables and barns, fruit-houses and corrals bespeak an orderly and systematic oversight.

Mr. Webb commenced improvements in 1873, at which time there was not a tree upon the place, it being at the time a portion of an immense grain-field.

The macadamized driveway leading from the Haywards and Oakland road passes through about 35 acres of well-kept and finely laid out orchard, of large and thrifty bearing trees, consisting of apricot, cherry,

(Continued on Page 137.)



LAUREL HILL FARM—RESIDENCE OF J. H. STROBRIDGE.



## THE FIELD.

## The Future of Our Agricultural Lands.

My reasons for believing that good lands anywhere in the United States will be worth \$100 an acre within five years, are as follows:

No matter how much or how little land there may be under wheat, we must have a given quantity under each of the other staples, and I am, so far as I am able to ascertain, the only one who has determined such quantities. This is succinctly set forth in the following exhibit, as is the manner in which I arrive at such quantities:

EXHIBIT showing acreage required per capita to furnish staples consumed in the United States, and cotton exported, as computed from (last) ten years' acreage and production, as set forth in the reports of the Department of Agriculture, first deducting the proportion of tobacco and grain—including the secondary form of animals and animal products—exported.

	Acres.
Wheat	0.48
Corn	1.19
Oats	0.39
Hay	0.64
Barley, rye,	
Buckwheat,	0.15
Potatoes & tobacco	
Cotton	0.31
Total	3.16

Just as soon as we lessen the quantity of hay or any other staple (needed for domestic consumption) below the current requirements, the price of that product will advance out of all proportion to the price of the other staples, and land will at once revert to the growth of the high-priced product, and there will be a lessened product of one or more of the other staples, the price for which will rise if the quantity produced is less than the current needs.

There is an exact and ascertainable ratio or relationship between population and the production of all the farm staples entering into general consumption, and my investigations have been directed to an effort to determine the proportions of this relationship. With a surplus of land in cultivation, it has not been as easy to determine this matter as it will be when this surplus has been eliminated, as the elimination of such surplus will enable us to see the inexorable character of this law of demand and supply, and when our own people shall require all our products he who runs may read the proportions of this relationship. That we have not seen it before is due to the fact that we have had too much land in cultivation, and could increase any one product at will without diminishing the domestic supply of any other. This is, however, about to change forever—and by "about" I mean within five years—and when this change comes the short seller on the board of trade and in the bucket shop will be shorn of much of his hateful power over prices.

We cannot, as you suggest, take the pasture lands to grow wheat and other cereals. The moment we reduce the number of cattle—other than milch cows—below 530 to 1000 people, just that moment beef will become the most profitable product of the farm, and every one will rush into the cattle business as they did in the earlier part of the ninth decade when the immense amount of unoccupied land enabled them to swamp the cattle business and bury its devotees under an avalanche of low-priced animals. This can never occur again, as the unoccupied area does not exist permitting any such increase in the number of cattle. Indeed from this day onward there is abundant reason to believe that the ratio of cattle to people will constantly lessen, and the cattle business shortly become profitable to the farmer.

Nor can you take the dairy pastures and convert them into grain-fields. The moment you do, and reduce the number of milch cows to less than 230 to 1000 people, that moment the price of milk, butter and cheese will mount skyward, and grain-fields will be converted into meadows and dairy farms.

For each 1000 units added to the population we must add 230 to 235 milch cows and a given number of horses, and but for the surplus of beeves now existing we should have to add 50 to 53 cattle other than milch cows. For every cow, steer or horse added, we must add about six to seven acres to our farms, and of this 2½ to 3 acres must be in pasture.

Instead of converting pastures into grain-fields, as population augments, we must add to such pastures in a definite ratio (which the census schedules will probably enable us to determine with tolerable accuracy), and having now more wheat land than is required to meet the demands of our own people, we shall take these surplus wheat-fields and grow thereon the corn, hay, oats, rye, barley, buckwheat and potatoes required at home, as well as the cotton we consume and export, and when all the land that is now in cultivation and that can be brought into cultivation is employed (as it will be by 1895) in producing the food, pro-vender and materials of manufacture which our people require, we must either cease to export cotton and grow grain on the cotton lands, lower the standard of living, or import food.

The relationship between population and the production of staples is such that there is but one crop we can reduce the area of, and that is wheat.

It is true we now have about 4,000,000 acres

more of corn land than is required by the present population, but population will certainly overtake the corn-lands not later than 1893, and probably in 1892, and then we must either reduce the per capita consumption of corn or convert wheat lands into corn-fields.

When I say there is now 4,000,000 acres surplus corn acreage, I mean that the product of this 4,000,000 acres now goes abroad in the form of grain, meat and dairy products, and that in 1893 or 1894 we shall consume at home every pound of such products made from an average crop of corn from the area which will then be in corn, unless we shall then have converted a part of the wheat-fields into corn lands.

There exists an exact relationship between population and all the staple products of the farm, such ratio varying only as varies the standard of living, and when we can determine the proportions of this relationship we can estimate the acreage and product required with just as much certainty as a finance minister can estimate the amount of revenue to be derived from specific taxes.

Having ascertained that the average yield of wheat per acre for a period of ten years is 12.1 bushels per acre, and that the annual consumption is 5.82 bushels per capita, we are able to say that (with average crops) each unit of the population requires 0.48 of an acre in wheat, and knowing the population and the rate at which it is increasing, we are able to say that there will be over 70,000,000 people inhabiting the United States in 1895, and that they will—with an average yield—require the product of 33,600,000 acres in wheat, and applying the same process to each of the other farm staples, we are able to say they will require 83,300,000 acres in corn; 27,300,000 acres in oats; 44,800,000 acres in hay; 10,500,000 acres in barley, rye, buckwheat, tobacco, potatoes, and—including that exported—21,700,000 acres in cotton, making a total of 221,200,000.

If we can determine, approximately, the area which will then be in cultivation—and I hold we can—we can say how much in excess or how much short of current domestic needs our products will be with average yields, and this is what I have attempted to do in the epitome sent you, and this with the well-ascertained short wheat acreage—taking the world as a whole—but the impracticability (not to say impossibility) of making such acreage keep pace with population, causes me to believe that not later than 1895 every acre of good farm land in the United States will sell readily for one hundred golden dollars.—C. Wood Davis in Country Gentleman.

## HORTICULTURE.

## Apples in California Foothills.

Amid the multiplicity of fruits in our State, the apple still holds preference with those inhabitants of Placer county (Auburn being the county seat) who have come from apple-producing States, and they are a majority. New-comers are inclined to plant apple orchards for local markets or Eastern shipping, and it is proper to state that apples do not succeed well till elevations considerably higher than Auburn are reached. Here and south and southwest of us, they are generally a failure, and hundreds of old apple trees have been grubbed out as worthless. Four trees of Yellow Bellflower and two of Newtown Pippin, on land I purchased two years ago, produced only small and inferior fruit, the Pippins being blotched and small, the Bellflowers small, spongy in flesh and tough in rind. This is at an elevation 130 feet higher than Auburn, the latter, 1360 feet above sea-level at San Francisco. The Red Astrachan, however, succeeds well at Auburn, and in higher elevations as far up the Southern Pacific railroad as Alta or Towles, which is 3607 feet above sea-level. Another Russian apple, the Duchesse of Oldenburg, succeeds well at Colfax—elevation 2422 feet—and at the several stations on the railroad up to Cisco, which is 5934 feet above sea-level, and by reason of its hardy character, will undoubtedly bear any degree of cold or exposure that any known apple can succeed in.

It being well settled that both amateur and professional fruit-growers are most likely to succeed when they limit themselves to a few well-tested kinds, I name a few which have been bought and sold by an experienced fruit-dealer who is also raising several of them, as kinds that may be relied upon to do well, with proper care, at any elevation between Clipper Gap, 1760 feet, and Cisco, 5934 feet elevation: Gravenstein—large, striped and beautiful; first quality; tree vigorous and productive, ripening in foothills first of August. King of Tompkins County—large, yellowish, striped with red; flesh, juicy, tender, vinous flavor; very good; keeps till February at and above Auburn; for apple-sauce it is not excelled. White Winter Pearmain—large, pale-yellow, very fine flavor; flesh, pale yellow, crisp and juicy; quality, very good; ripens late in October and keeps well; an excellent apple in the middle foothills, at and above 1700 feet elevation. Winesap—small to medium size; dark-red; high flavored; tree hardy; a mellow, good winter apple, north of Auburn, and when raised in elevated positions northward. Smith's Cider is a safe apple to plant in the foothills for production and profit, as it is in Central Wisconsin. The popular Wealthy—originating in Hennepin county, Minn., I believe—

does well in foothill localities; light-red, very productive, heat quality, and a very desirable apple; early winter in North California foothills. Of the same iron-clad class is the Walbridge—good quality, handsomely striped red, early and abundant bearer; a few days later in ripening than the Wealthy. The Walbridge originated in Sauk county, Wis., I believe, and I should try it if setting out an apple orchard above 1700 feet elevation.

Haas and Rhode Island Greening are popular apples, and do fairly well at elevations of 3000 feet or over. Fine specimens were shown at the Auburn fruit exhibition, September, 1890, and I have tested several boxes of Greenings grown at Dutch Flat, elevation 3395 feet, near Southern Pacific railroad.

This short list may be concluded with brief remarks on the Lawver, a most promising late-keeping winter apple. The Lawver is here called a "four-tier" apple—that is, four tiers packed in the usual manner fill a box, which is 11 inches deep. The Lawver is large, roundish, flat, mild sub-acid, fine-grained, firm and heavy; color dark red—the handsomest of all extra-large keepers; a valuable late market sort; tree a vigorous grower, very hardy and bears well. "The Lawver apple," says John Bidwell, an experienced fruit-shipper, "is the most promising late-market apple now before the California public, and being very good quality as well as hardy and productive, may supersede the poor-quality Ben Davis, which, though very showy, has neither good flavor nor high quality." It is more uniform in size than either the Greening or Baldwin, and as fine-grained as the Swaar, its firmness being a protection against bruising. It is a little larger than the Greening, while its long-keeping qualities are undoubted. Considering its excellent qualities, the Lawver is probably the coming red long-keeping winter apple that has been desired for several decades, being adapted for shipping in late spring and early summer when really good apples readily command good prices.

Many other varieties are grown at elevations above 1500 feet, in the contiguous counties, El Dorado and Nevada, and sold here, thus giving our fruit shippers opportunity for comparison, and selection of those varieties that are best adapted to the producing conditions of the foothills, and for shipping as well as for supplying the local demand, which is considerable, where there are usually several hundred visitors seeking health, or on county-seat business. It may be added that apples of good quality may be grown at or near the elevations stated, in scores and hundreds of foothill localities on the west side of the Sierra Nevada mountains, which extend, with gaps at irregular intervals, from Modoc county adjoining the Oregon State line, fully 500 miles to the southern side of Kern county, where the mountains curve and form the Coast Range, which extends back again to the Oregon boundary in Del Norte county, with a break of about 100 miles wide, which forms the valley through which the waters of the Sacramento and San Joaquin rivers reach the bay of San Francisco. The only reason why the localities first named are now producing good apples is that railroads and other opened highways have made them accessible. The slopes of any of the wooded foothills on the western side of the Sierras are naturally as well adapted to apple-growing at corresponding elevations as the localities named.—J. W. Clarke of Placer county in Country Gentleman.

## Fruit Varieties in Arizona.

A series of very instructive meetings has been held by the Fruit-Growers' Association in Phoenix this winter. Many instructive papers were then read. The following conclusions from such exchange of views are presented by the board of directors of the association:

The experience of the last few years has demonstrated what may be done in our valley whenever a systematic effort is made in fruit production. With some varieties, which we may produce in almost unlimited quantities, there seems to be some question as to an available market at paying prices. These questions only time and experience can definitely settle. For the present we deem it best to advise the planting of those kinds of fruits which experience has shown we can produce in abundance, at a reasonable cost, and for which the market is available and already established.

We have tried in this report to recommend varieties of fruit for commercial purposes rather than for home use. In some cases the two objects are somewhat combined.

THE APRICOT.—No doubt one of our most successful fruits is the apricot. It comes into bearing early, is hardy and prolific and long-lived. For canning or drying it must be profitable. The market is seldom overstocked with really choice goods, such as may be sun-dried in our valley. The Pringle is our first variety to ripen, is not of value except for home use. As an early variety, the Newcastle seems to be taking the lead. It has not been thoroughly tested in our valley, but is well recommended. The Large Early Montgamet is well placed next by some experienced growers. As an all-around apricot in our valley, perhaps the Royal stands at the head, and no one will miss it by planting largely of this grand variety. No doubt other varieties will do well. The above will ripen in the order named and yield a succession of fine fruit. Some fault has been found with the size of our apricots, but we

feel that the remedy is thinning and more thorough cultivation.

THE PEACH.—Our next fruit to ripen is the peach, and no one will miss it who plants entirely of the peach. For early peaches we recommend Briggs Red May, Early Alexander and Parsons' Early, followed by Thissell White free and Stump the World. As a midsummer canning or drying peach, the Muir takes the lead. The Salway comes next and is a grand peach. Next we would place Bilyeu's Late October. The above are all freestones. For a clingstone, plant Orange Cling. The latest of all is the Bagleys December cling. There are many other good varieties, but the above will give a succession of fine fruit, and have been well tested in our valley.

The Salway is a large, prolific bearer and has given thorough satisfaction where planted in our valley. We do not think it can be too highly commended.

THE FIG.—Our valley seems to be the natural home of the fig. There is no doubt that the fig may be grown in any quantity. The market at present does not seem to be fully established. Should there be no lack of a profitable market then the fig is certainly destined to be one of the most valuable fruits.

At present the White Adriatic is the variety most planted, and there does not seem to be any available variety which at all rivals it. The California black or blue is very productive, and by some highly esteemed for home use. The coming fig may be the Smyrna or fig of commerce, but at present this is not available.

THE ORANGE.—For an orange we would place at the head of the list the Washington Navel, followed by the Mediterranean Sweet, Maltese Blood and Azoreon St. Michael. Hart's Tardiff, a late orange that seems to be hardy, is apparently coming into favor. We would recommend the Tangerine as a very hardy orange which will stand much exposure.

The Villa Franca is recommended as a hardy lemon, and will no doubt succeed in our valley.

THE OLIVE.—The olive tree thrives well in all parts of our valley. The oldest trees are just coming into bearing and would seem to promise well. The Rubra and the Manzanillo are the two varieties most highly commended as being prolific and hardy, and coming into bearing young.

THE APPLE.—The very earliest and the very latest varieties will do well. Let the summer apples alone. For early, such as the Early Harvest; for late, such as White Winter Pearmain and Ben Davis.

THE PEAR.—The pear tree grows well in all parts of the valley, and pear-men claim there is money in this fruit here and that there are many varieties which will succeed. So far as we can say from actual experience of the growers, the Bartlett and Winter Nellis should head the list. The Le Conte is being extensively planted, but so far none have come into bearing. It is very hardy and makes a fine growth.

THE GRAPE.—Our climate and valley seem to be especially adapted to the culture of the grape, and no line of fruit-culture promises to be more profitable. As our climate is especially adapted to raisin-culture, no doubt the raisin grape should head the list. We strongly recommend the Muscat of Alexandria and the Gordo Blanco. On poor or sandy soil we recommend the Malaga, as it will produce a good crop when the Muscat and Gordo Blanco will not. In the light of present experience, we do not recommend the Seedless Sultan.

For a shipping grape, we recommend the Flame Tokay as a grape prolific, hardy, and a grape which sells better than any other in New York and other Eastern markets. The Emperor, Cornichon, Muscat, Gordo Blanco and Malaga are all good grapes for Eastern shipment.

THE POMEGRANATE.—The pomegranate succeeds well in our valley and there seems to be a growing demand for it in the East. It is cheaply and easily propagated. The Japanese paper-shell seems to be the variety most in favor.

A. J. CHANDLER, Pres.  
E. KAYS, S. C., H. W. ADAMS, R. E. FARRINGTON, T. W. PEMBERTON, Board of Directors.

## METEOROLOGICALS.

## Forms of Atmospheric Disturbance.

NUMBER 1.

EDITORS PRESS:—In view of the many inquiries received at this office relative to the use and significance of technical meteorological terms, and for information as to the character of the various forms of atmospheric disturbances recognized by the science of meteorology, it has been deemed advisable to prepare for publication, through the PRESS, a series of circulars or bulletins which will briefly but yet comprehensively furnish the desired data. It is believed that this plan will serve to instruct the public on an important subject and assist in making the daily weather forecast of more practical value. The first circular will treat of

## The Cyclone.

About 50 years ago Piddington of Calcutta, East India, first applied the term cyclone to all circular storms of whatever area. The earliest published account of storms where the curving of the winds is recognized was by Captain Longford in 1698, in a paper on the West India hurricanes, which he called "whirlwinds." The term cyclone comes from the Greek cyclos,



which signifies, among other things, the coil of a snake. Its application to the most important of all meteorological disturbances is not intended to affirm that the area described by the storm is a true circle, but rather expressing sufficiently the tendency of the air to a circular motion. The word is now accepted by the leading meteorologists of the world as properly distinguishing a certain class of storms. The cyclone is a broad disturbance having a diameter of from 300 to 500 miles, and sometimes 1000 miles. It is a vast eddy in the atmosphere and moves along in that medium very much as the eddies in a stream of water. The air does not have an actual circular motion at any place within the storm area, but only a tendency to spiral movement.

But even this tendency is not revealed by reports from a single station. It is necessary to obtain observations from the entire area of disturbance, which, when plotted on a chart, discloses the general movement of the air gradually inward toward the center, where it rises to the upper cloud region and flows outward on all sides. This motion of the air gives rise to westerly winds south of the cyclonic center, southerly winds on the east, easterly winds on the north, and northerly winds on the west. At the center of the area there is a calm space 10 or 15 miles in diameter, known as the "eye of the storm." This is a very dangerous part of the cyclone for vessels to encounter, as they become motionless and are then suddenly caught at a disadvantage by the rear of the storm. The barometer is lowest at the center and increases outward to the circumference. The form of the cyclonic area is either circular or elliptical, generally the latter. The direction of progressive movement is from west to east under the influence of the rotation of the earth, and while not directly visible is apparent in the passing changes of the weather. The rate of movement is on the average about 30 miles per hour, being most rapid in winter, with a maximum of 50 miles, and least rapid in summer, with a minimum of about ten miles. The four quadrants of a cyclone have distinct and invariable characteristics as follows: In the northeast quadrant, great humidity, high winds, precipitation, and heavy clouds, especially in the southern portion. In the southeast quadrant, the maximum of heat and moisture, the region of all classes of local storms, especially the tornado. In the southwest quadrant, clearing weather, with dashes of rain in the eastern portion, falling temperature and diminishing humidity. In the northwest quadrant, the minimum of heat and moisture, general absence of clouds and brisk, cold winds. Some cyclones may preserve their identity in passing entirely around the earth, but the generality only make about one-third of that distance and then disappear in the general circulation of the atmosphere.

JOHN P. FINLEY,  
Lieutenant U. S. Signal Corps, in charge.

## THE STABLE.

### Buena Vista Stock Farm.

EDITORS PRESS:—The writer made a flying trip to Salinas City one day last week to see Buena Vista Stock Farm, owned by Mr. Hiram Corey. It contains about 2000 acres and is situated 2½ miles south of Salinas City, on the opposite side of the Salinas river. Since Mr. Corey's return from Europe some time in October, 1890 (where he had spent a year in travel with his family), he has laid the foundation of one of the prominent breeding farms of the Pacific Coast. He has selected a most advantageous place for his buildings and paddocks, surrounded as it is by high rolling hills with a gradual slope to the county road that leads to Monterey.

The main building, 42 by 126 feet, with a carriage-house 22x50 feet, is completed, as also the paddocks and two rows of low buildings containing box stalls 24 in number. Two artesian wells had been sunk. One had to be abandoned at a depth of 140 feet, and one that had been bored to a depth of 240 feet had choked with quicksand.

Mr. Corey's trip to Europe gave him a good opportunity to investigate the merits of pure-bred stock, and he was most favorably impressed with the value of the Shire and Suffolk Punch stock as the best class for draft horses.

At a horse show in Suffolk county, England, he saw over 600 Suffolk Punch show horses at one time and was convinced that a century of judicious breeding in this class had developed an animal that in points of excellence for the farm and team for hauling heavy loads was not excelled by any other breed.

He has recently purchased from the importation of Theodore Skillman the stallion Winston 1907, bred at Woodbridge, England, who took all first prizes and was never beaten in the show ring; also Gypsy Girl 2473, a two-year-old mare, and said to be one of the most perfect types of the Suffolk Punch.

He also purchased of Mr. Skillman the Shire stallion Good Enough, a fine specimen of a draft horse. At the head of roadsters and trotting stock is Trave, two years old, 15½ hands high, sire Alban 2:24 by General B. Norton, dam Alice out of the dam of Norval 2:17½, sire of Noraline.

He has also Prince of Oaks, sire Seven Oaks,

by Nutwood, dam Mallie by son of Whipple's Hambletonian. We expect to be able to give photo-engravings of these grand draft stallions and of Trave, one of the most promising animals of the Palo Alto stock, together with a full description of Mr. Corey's stud and of the Buena Vista Stock Farm.

H.

## THE STOCK YARD.

### The Smithfield Show and Its Lessons.

EDITORS PRESS:—I am rather long in coming forward with my notes on the greatest fat-stock show of the year, viz., that held at Smithfield, London, where, as before stated, there were on exhibition a total of 284 head of cattle, besides representatives of an even dozen different breeds of sheep and an exact half-dozen breeds of pigs.

The *Mark Lane Express*, in its opening remarks, says: "The Smithfield Club Cattle Show of 1890 was perhaps the best ever held. The entries were numerous and the quality of the animals was superb. We may add that the sheep and pig entries are larger than those of any previous year, and the total number of entries has only been exceeded on one occasion, viz., in 1883."

#### The Devons.

The Devons are first on the list in the catalogue. There were 31 animals exhibited in the eight classes for premiums. There were eight yearlings, and all of them that did not receive premiums were commended by the judges, so that they must have been a very superior lot of animals, for it is considered quite an honor at the best English shows to receive either an b. c. (highly commended) or a commendation (c.).

The *Agricultural Gazette* says: "The class for steers not exceeding three years old contains the breed champion, and the one selected for that honor is Her Majesty's first-prize winner in the same class at Birmingham, which was bred by Mr. G. Risdon and sired by Champion 1921 of Mr. John Risdon's breeding and fowl of Quartley blood. This well-fed steer is good in rump and round, while he is even and well-covered along the back with a lot of prime-handling meat, and can boast of excellent quarters."

The name of Quartley strongly reminds me of the fact that it is now within a few days of 30 years since I landed in California with a bull and two heifers of this same old blood. They were bred by the late James Quartley of South Molton, Devonshire, England, and were good animals imported for a wealthy San Francisco gentleman, along with five head of Shorthorns, from which latter there are a few pure-bred descendants, but from the Devons none have survived till this day pure. The importation proved to be nothing more than the gratification of a passing fancy, as many others have been, but more particularly with Shorthorns, because there have been more herds of the latter breed started, in name at least, many of which never got beyond the starting-point, however.

#### The Herefords.

There were 38 head of Herefords on exhibition. The *Farmer and Stock Breeder* says:

This popular breed has seldom been better represented. \* \* \* Yearling steers were the strongest class we have ever seen at Smithfield. The Birmingham competitors, numerous and good as they were, received a considerable accession here, and we are pleased to be able to add had better justice done them in the ring.

In a large class of two-year-old steers, Mr. Turner's steer, which was second to the Queen's at Birmingham, came to the front here. He is a remarkably good bullock, thickly fleshed and full of substance, wonderfully ripe for his age. He should unquestionably have received the breed cup. Lord Coventry's second steer, which was reserved at Birmingham, is second here. He is a massive steer, sired by Adelbert 8185, but not so well finished nor heavy as several others in the classes. Mr. Cook's reserve at Birmingham is third here, a useful, well-bred steer by Grove Wilton 3d 11295. It will thus be seen that Birmingham decisions have been freely disturbed.

The most glaring error of judgment was perpetrated in the class of three-year-old steers. The Queen's Birmingham winner, not by any means the best animal of his breed ever seen in point of character, should have had no difficulty in maintaining his position. He had, however, through no fault of his, to give way to Mr. Platt's upstanding bullock, which was not even commended at Birmingham. Mr. Platt's steer has a good middle-piece and handles a little better perhaps than the Queen's, but he is conspicuously deficient in his forequarters and very uneven in his flesh. Rather more than two cwt. lighter than the Queen's, which scaled over a ton in weight, he had no legitimate claim to the prominence conferred upon him.

#### Shorthorns.

The *Agricultural Gazette* confirms the general opinion of the wide-spread utility of this breed by saying:

It is customary to recognize the share that this breed contributes to an exhibition of fat stock by stating the number of entries in the Shorthorn classes. In real fairness to the number of these entries should always be added those made in the section for cross-breeds, for it will be a wonderful cross which has not Shorthorn blood on at least one side.

It cannot be said that the first class for Shorthorns in the Islington Hall (i. e., that for steers

under two years old) either gets (or deserves to get) the attention which is paid to at least three other breeds. In these the youngest (the most important) male class is commended in its entirety. But the Shorthorn yearlings are not. They are fairly heavy, as they average above 12 cwt. 3 qrs., when under 20 months, but they are of widely different types. H. M. the Queen takes first prize with a white, which is by a Scotch Shorthorn bull from a cow of that Cawlina family so long associated with the Shaw Farm.

In the class for steers two years old and under three, Mr. Cridlaw's roan, first at Norwich and Birmingham, also winner of breed cup at the latter place, is first in his class here and reserve as best Shorthorn.

Steers or oxen, three and under four years, are described as a good class, the Birmingham winner heading the list, and the Queen's very good bullock is here beaten by a white steer.

The class for heifers was certainly the best class of Shorthorns. The three, put atop, curiously fulfilled the limits of the breed; they were a red, a white and a roan, and the judge preferred the mixed to either of the whole colors. Of the Queen's champion heifer so much has been written that it seems best to write no more. Mr. Dunthie bred it; but it was removed to Windsor when only a calf, and the credit of bringing it out fairly belongs there. It does not show quite the rate of increase of Mr. C. Stephenson's Aberdeen-Angus-Retlence heifer, which was *rm*, but we think it was properly preferred even to that excellent butcher's beast. If the judges preferred Mr. R. Wright's white Oarew Pansy to Mr. C. Colard's Red Amy for the greater compactness of the former, we think they decided rightly; for it is undoubtedly a thing to aim at just now to get Shorthorns closer to the ground. The class for cows—as did that of the heifers—supplied three really first-class specimens of a class of cow always in great demand, i. e., those which will breed regularly and yet carry flesh.

The young classes of the Sussex breed are well thought of by the last-named paper, which says the class for steers, under two years old, contained twelve entries, and formed one of the best yearling classes of any breed in the show, being commended in its entirety.

#### Polled Aberdeen-Angus.

The entries of these cattle were not so large as last year. Some of the classes those for aged and youngsteers, were rather weak, but the high quality of the middle class of steers and among the heifers, made the collection of "doddies" an interesting section of the show.

#### Cross-Bred Cattle.

"Forty-four entries of cross-breeds comprised some of the best beef cattle in the hall, the display being equal to anything that has ever been seen at Smithfield."

The winners were nearly all a cross between a Shorthorn and some other pure breed, a Shorthorn Highland cross being the winner in a "formidable class of two-year-old steers."

For convenience, I have put the age, weight, and gain per day of the animals that made the best growth in each of the principal breeds, so that a comparison can be easily made.

DEVONS.			
Age in Days.	Weight in pounds.	Average gain per day.	
638.....	1229.....	1.93	
988.....	1549.....	1.57	
1292.....	1877.....	1.45	
Heifer under four years.			
1265.....	1630.....	1.37	
HEREFORDS.			
Steers.			
682.....	1603.....	2.35	
947.....	1826.....	1.93	
1406.....	2320.....	1.65	
Heifer under four years.			
1046.....	1816.....	1.76	
SHORTHORNS.			
Steers.			
562.....	1406.....	2.50	
988.....	2104.....	2.13	
1248.....	2303.....	1.85	
Heifer under four years, Champion of the Show.			
1015.....	1847.....	1.82	
SUSSEX.			
Steers.			
549.....	1314.....	2.45	
1040.....	1963.....	1.90	
1210.....	2004.....	1.74	
POLLED ANGUS AND GALLOWAY.			
Steers.			
722.....	1436.....	1.99	
1039.....	2072.....	2.10	
1416.....	1968.....	1.39	
Heifer under four years.			
1025.....	1900.....	1.90	
WELSH CATTLE.			
Steers.			
761.....	1692.....	2.22	
1217.....	2402.....	1.97	
Heifer.			
456.....	1352.....	2.96	
CROSSBREDS.			
Steers.			
594.....	1421.....	2.56	
1019.....	2192.....	2.15	
1328.....	2261.....	1.70	
Heifer under four years.			
1054.....	2063.....	1.96	

By the above it will be seen that the greatest gain per day had been made by a heifer of the Welsh breed ("very ripe and well-grown for her age") also that the steer of 1217 days had a gain of a fraction more than the Shorthorn steer of 1248 days; but it must be remembered that the Welsh heifer had the advantage of being nearly 100 days younger than any other animal in the table.

The following is from the *Mark Lane Express*

and shows how much can be gained by one animal at two exhibitions, the sum being equal to about \$1850.

#### "EXTRA" CLASSES.

The other classes did not present anything worthy of notice beyond the Queen's Devon.

Princess Josephine II, the Queen's champion Shorthorn heifer, was sold to Mr. John Jones, of Llandudno, for the unprecedented sum of £160. As she turns the scale at 16 cwt. 2 qrs., this price represents 1s. 9d. per lb. live weight, or, sinking the offal, by assuming one stone live weight equivalent to one Smithfield stone dead weight, it means beef at 3s. per lb. During the last ten days she has brought to her Royal owner the large sum of £535, and her performances deserve to be placed on record.

At Birmingham—

First class prize.....	£15
Best Shorthorn.....	50
Elkington cup.....	105
	—£170

At Islington—

First class prize.....	£20
Best Shorthorn.....	25
Best cow or heifer.....	50
Thorley's prize.....	5
Champion plate.....	105
	—£205

Won in prizes.....

Sold for.....	£375
	160

Total.....

£535  
The above is a large sum of money to be gained by one animal in so short a time, or in her lifetime for that matter, for it will be seen that she was not yet three years old—and she died. She was ailing at the close of the Smithfield show and did not live long enough to be killed for that "Christmas beef" into which her late purchaser contemplated turning her.

To show the way in which prize-money is distributed, some one has made the following calculation, viz., that in 11 years, 1878-88 inclusive, the money distributed at one of the principal English shows amounted to £17,216, awarded in 212 prizes to cattle, 121 prizes to sheep and 85 prizes to pigs, a total of 418 prizes. Of this sum, £9391 went to 62 of the winners—32 cattle, 18 sheep and 12 pigs.

Those interested in the color of winning Shorthorn cattle will observe that nearly all the prize animals of that breed at the English shows were either roan or white; not only that, but both the English and American champion Shorthorn bulls for the year 1890 were roan, as well as the English champion ox and champion cow, the latter winning over all other premium animals as best beast of any age or breed at the English fat-stock shows.

A correspondent in the *Breeders' Gazette* (Chicago) recommends the use of roan bulls for breeding beef cattle on account of their more generally thrifty character. Mr. Wm. Warfield, one of the highest authorities on Shorthorn cattle we have on this continent, in a recent issue of the same paper, writing on "Early Maturity—How Can It Be Attained?" after discussing the pros and cons of the matter, ends thus: "Where does the difficulty lie? In two places, I am afraid. The breeders of store cattle will not use good Shorthorn bulls of roan color as much as they should, and the shippers and butchers will not learn the wisdom that comes by observation; they prefer tradition. Cannot we join hands all around and make an effort to help on this good cause?"

There can be no doubt but there are many breeders with good herds of their own, who have observed the bad results from the folly of some other breeders, confining themselves entirely to the use of red bulls. That there are more roan bulls used by the best breeders now than there was a few years ago, I have no doubt, but still have my doubts about the "color craze" (for it is nothing else), being on the wane in this State, if I may be allowed to take my standard of judgment from the miserable fiasco witnessed at our late State Fair, when four of the best young bulls on the grounds, if not the best, (under three years old) were sent out of the ring unnoticed if not ignored by the judges because of their roan color. For my part, I have always been able to sell my best bulls at the highest prices, regardless of color, and I never had a white one left on my hands to a greater age than I have had red ones, and it has happened with me more than once that a white bull has been chosen in preference to a red one, simply because of his better quality, without any regard to difference in breeding or pedigree.

Another thing worthy of note from which a lesson may be taken is that some of the cross-bred or grade beasts ran the pure breeds a close race for the premiums, where the competition was open to all, and in more than one instance, the cross-breeds came out atop.

What I wish to call attention to is the fact that all the grade or cross-bred premium animals had either both sire and dam of two distinct breeds, or got by a pure-bred bull and out of a grade cow.

In no case was a prize animal in the four fat-stock shows named in these articles, got by a grade bull.

ROBT ASHBURNER.  
Baden Station. San Mateo Co.

ANOTHER HONOR FOR CALIFORNIA.—We noted last week the election of Ex Mayor Alvord to the presidency of the National Forestry Association. We now notice that Abbot Kinney of Los Angeles county was elected a vice president of the same association. The National meeting was held in Washington and much important business was transacted. A National forest system may reasonably be expected from the next Congress.



## PATRONS OF HUSBANDRY.

In our Rural Press Official Grange Edition, issued every week, will be found additional matter from this and other jurisdictions, of interest and importance to Patrons. Any subscriber who wishes can change free to that edition.

## The Master's Desk.

E. W. DAVIS, W. M. S. G. OF CALIFORNIA.

If every farmer had read and studied the Patrons of Husbandry's "Declaration of Purposes," there would be many more Grangers in California. Farmers should post themselves about the Grange. It is an Order with a history—with a history noted for its conservative requests—and much of that history for the past 25 years has been ingrafted into the live, fresh, earnest thought of the day. Stand by the Grange, for it is safe, conservative, progressive and sincere; not trimming sails to popular breezes, but educating, elevating and assisting farmers everywhere. You owe the Grange many words and acts of kindness. It has helped you many times while you were sound in sleep; for just then somebody was running a pen, which via the newspaper brought you words of cheer, or perhaps aided in defeating some bad legislation, or possibly assisted in passing some good law. Kindly remember the Grange, and as kindly work for it.

The *National Farm and Fireside* of Jan. 24, conducted at Washington, D. C., by Bro. Alex Wedderburn, published a splendid likeness of Bro. X. N. Chartiers, the Worthy Master of Virginia State Grange and one of the members of the efficient Executive Committee of the National Grange. We all say, when looking at the likeness, "How are you, Virginia?"

The Grange wants the farmers to think; to be thoroughly posted; to act intelligently and together; to expose and denounce wrongs in all places and in all persons; to distinguish between a patriot and a partisan, between a demagogue and an honest man; to ally, and not excite, passion; to relieve distress; to educate the orphan; to avoid litigation; to increase happiness; to diminish crime; to encourage public and private economy; to reward its friends and to watch, with sleepless eye, its foes; to love country; to practice what it preaches, and to hurry the time when "the greatest good to the greatest number" shall be more universal than it now is. Do you want to be a member of such a fraternity? Then send your name to the nearest subordinate Grange of the Patrons of Husbandry.

The Grange presents a great, big platform to those who fully comprehend it. There are thousands of the brightest men in America who stand upon it, and there are thousands of the purest and best women in the world who endorse every word of that platform. Read the Patrons' Declaration! It is a public document and can be had of any subordinate Grange. Take one hour to read the document that has forever immortalized a former son of California.

Plant a seed of thought in good soil!

Do something for Washington's Birthday this year. Your Grange may meet on the third Saturday (Feb. 21st), so prepare something for the memory of the man who pruned the cherry tree with his little hatchet. Let us keep fresh in our minds the memory of "one who could not tell a lie."

"Strike while the iron is hot" is a trite saying. But who is to heat the iron? Who build the fire? Who find the fuel? Now to apply the thought to the Grange, who is to hunt up the charter list for a new Grange? Which Deputy will institute the first Grange? Whose names will be on the first charter list? Let him or her who will, answer.

How much did you assist the Grange last year? How many Harvest Feasts did you attend? Would you miss one feast for the dues you pay during the entire year? Honest now! Then try to do a little more for the Grange! Get just one application for membership.

Plant a forget-me-not in your garden and forget-me-not in your kindest recollections.

Send a valentine to your Grange. Let it be an application for membership of a worthy person!

Being frequently asked why the subordinate Grange cannot initiate a brother for one dollar and a sister for fifty cents, let me say the reason is, because the State Grange of California has never yet said so. When the State Grange says so, the fee can be reduced, not before; and thirty days' notice, prior to the meeting of the State Grange, must be given, else the State Grange cannot act.

"Children's Day" will be observed by the Granges of Sonoma county on the last Saturday of June. The exercises will be held at Bennett Valley Grange hall. Already the committees are at work. Who comes next with the celebration of this day?

Attend your Grange meetings and you will soon find something to do; something to get in-

terested in; something to work for, and some way to do that work. Try the Grange!

Bro. H. E. Hayes, the efficient, progressive, aggressive and successful Master of the Oregon State Grange, is doing some valuable work in California. His voice is strong; his convictions are sincere; his observations run over many years; his opportunities have been great, and his zeal and interest know no bounds. He is an interesting speaker with the courage of his convictions at his perfect command, and he hews to the line let the chips fall where they may. The membership of this State ought to be very anxious to hear Oregon's silver-tongued Master. Hear him, if possible, and then go tell the story to all the farmers in your neighborhood.

Masters of subordinates, get your officers often together. See they have their work. Get them interested. Make your Grange the best in California, and do so at once!

How many unaffiliated Patrons in your jurisdiction? Hunt them up and get them to affiliate with your Grange.

Obey the Constitution and Laws of the Order. Nothing is gained by "a free-and-easy" time. Be prompt; be courteous; be strict; be right; and your Grange will increase in usefulness and in numbers.

Who is going to take the lead in California in collecting donations for the Temple to Ceres? The Committee on Woman's Work?

## "Axioms From Webster."

EDITORS PRESS:—Judge W. O. Blackwood in his address published in the PRESS of the 17th inst., writes: "No legislative body can have any moral right to enact laws whereby one class in the commonwealth may grow rich at the expense of other classes," quotes from one of Webster's early speeches, as given by Messrs. Carlisle and Mills in their minority report on the McKinley bill in support of his "axiom."

I, with many of the readers of the PRESS who have personally listened to his eloquent periods and unanswerable logic, reverse his teachings and his memory, but who, unlike Messrs. Blackwood, Carlisle and Mills, have read his later as well as his earlier speeches.

In a spirit of candor, of fidelity to his memory, of historic accuracy, permit me to quote from the "Great Webster's" later utterances, soon after the teachings of his college professors had been dispelled by a study "of figures and markets."

In a speech at Niblo's saloon, N. Y., he said: "I am in favor of protecting American industry and labor, not only as employed in large manufacturing, but also as employed in the various mechanic arts, carried on by persons of small capital, and living by the earnings of their own personal industry."

"If duties were to be abolished on hats, boots, shoes and other articles of leather, and on the articles fabricated of brass, tin and iron, and on ready-made clothes, carriages, furniture, and many similar articles, thousands of persons would be immediately thrown out of employment in this city and in other parts of the Union. Protection, in this respect, of our own labor against the cheaper, ill-paid, half-fed and pauper labor of Europe, is, in my opinion, a duty which the country owes to its own citizens. I am, therefore, decidedly, for protecting our own industry and our own labor."

In the last and perhaps the greatest tariff speech he ever made, he says of these utterances which Judge Blackwood quotes ingenuously: "But sir, before I proceed further, I will take notice of what appears to be some attempt, latterly, by the republication of expressions and speeches of mine at an earlier and later period of my life to place me in a position of inconsistencies on this subject of the protective policy of this country. Mr. President, if it be an inconsistency to hold an opinion upon a subject of public policy to-day in one state of circumstances and to hold a different opinion upon the same subject of public policy to-morrow in a different state of circumstances, if that be an inconsistency, I admit its applicability to myself."

In this speech he eloquently says: "The interest of every laboring community requires diversity of occupations, pursuits and objects of industry. The more that diversity is multiplied and extended the better. To diversify employment is to increase employment and to enhance wages. And, sir, take this great truth; place it on the title-page of every book of political economy intended for the use of the Government; put it in every farmer's almanac; let it be the heading of the column in every mechanic's magazine; proclaim it everywhere and make it a proverb, that where there is work for the hands of men there will be work for their teeth. Where there is employment there will be bread. It is a great blessing to the poor to have cheap food, but greater than that, prior to that, and of still higher value is the blessing of being able to buy food by honest and respectable employment."

"Employment feeds, clothes, and instructs. Employment gives health, sobriety and morals. Constant employment and well-paid labor produce in a country like ours, general prosperity, content and cheerfulness. Thus happy have we seen the country. Thus happy may we

long continue to see it." And thus happy have we long seen the country under protection.

And he continues, to which I particularly call Judge Blackwood's attention: "I hope I know more of the Constitution of my country than I did when I was 20 years old. I hope I have contemplated its great objects more broadly. I hope I have studied with more care the condition of country when the convention assembled to form it. And now, sir, allow me to say that I am quite indifferent, or rather thankful, to those conductors of the public press who think they cannot do better than now and then to spread my poor opinions before the public." H. W. A.

Point Arena, Jan. 29, 1891.

## Meetings of W. M. Hayes.

Hayes at Yuba City.

EDITORS PRESS:—It is with more than ordinary pleasure that I undertake to record the visit of Worthy Master H. E. Hayes of Oregon State Grange to Yuba City Grange on Saturday, Feb. 7th. In contemplating the grand treat of so distinguished a visitor, we have lost sight of the slight misunderstanding as to the appointments provided for Bro. Hayes. It was the regular meeting of the Grange; that, and the desire to see and hear the noted Oregon orator, brought out a large attendance, together with numbers of neighboring Patrons. Bro. A. D. Logan, an original Sutterite I might say, was also with us and enjoyed the shake accorded him by his old neighbors and friends. Our young and talented Master, W. D. Woodworth, called the meeting to order, and after the usual routine labor was performed a recess was declared and the doors were thrown open to the public. After the rendition of some excellent music, Bro. Hayes was introduced to the large audience (every seat being occupied and still they came), when he spoke for nearly an hour and a half, delivering one of the most interesting addresses ever listened to in these parts. No report of mine can do the speaker justice as he rapidly and lucidly sketched the rise and progress of the Grange and the farmers' organizations. He gave us a glimpse at the raw agricultural material of the anti Grange era when not a farmer in a hundred could preside at any sort of a meeting, while now almost any young lady Patron could manage a gathering in the most approved style.

Since the organization of this Order, others had taken place and all were subserving a useful purpose. Just as all the people could not join one church or party, so all could not belong to one Order, but in the variety all could be accommodated, and all should identify themselves with some organization, since it is the age of organization and combination without which the agricultural classes could not wield the influence due their members. He gave a gratifying account of the influence now wielded at the seat of Government by the Patrons of Husbandry, as he himself had witnessed during his recent visit to Washington and the Eastern cities. One of the grandest steps in the march of progress of the Order was the admission of woman on a perfect equality with men, the Grange being the pioneer in this direction of all former organizations.

The speaker paid a glowing tribute to the educational features of the Order and commended it to the young, who, with these advantages over those of their parents, could take these graduating lessons after retiring from their schools and colleges. As showing the work of the Order, Bro. Hayes cited many reforms that were due to the efforts of the Grange. Among these were the Granger railroad cases, the making of the Commissioner of Agriculture a Cabinet officer, the Interstate Commerce law, although this had been switched off somewhat from its original purpose.

He dwelt on the silver question and couldn't see how free coinage could injure any one, especially the producers and wage-workers. He spoke of the adulterations of food, and how it injured our markets, and said its consideration in Congress was due to Grange influence. He discussed the loan system as proposed in certain quarters, and failed to see why the Government could not loan the farmers money on credit as well as to the banks.

The speaker illustrated the value of co-operation, and thought if entered into as we might and should, all grievances could be rectified with ease.

Bro. Hayes was listened to with profound attention, and was loudly cheered as he took his seat. His closing remarks, concerning his long trip and his fraternal receptions, were feelingly expressed, and he extended a general invitation to all to come and visit his State. In conclusion, a short literary program was rendered and the audience departed, feeling grateful for the enjoyment of the day. Fraternally,

Yuba City, Feb. 9, 1891.

## Cordial Reception of W. M. Hayes.

EDITORS PRESS:—Yesterday the Patrons of Magnolia and Eureka Granges were entertained with a very instructive talk by W. M. Hayes of the State Grange of Oregon, who will speak at different points in California before going home. It did our hearts good to hear Bro. Hayes, and we most regret that he cannot stay right with us and teach us lessons of political economy every day. We could not get tired of him. We are glad, though, to

know that he will speak to other Patrons and stir them up also. None can afford to miss hearing him. We know him now and would go many miles to hear him again. Come again, Bro. Hayes. We shall be glad to welcome you here again before you leave the State.

Last Saturday, Eureka Grange installed its officers for the ensuing year. We are few in number, yet we are still alive and able to work. Eureka Grange has started out resolved to have an exhibit at the next State Fair. A committee was appointed to confer with the other Granges of the county and have a union exhibit. Yours in F., H. and O,

B. A. GIANTVALLEY.

Auburn, Cal., Jan. 30.

Bro. Hayes at Elmira.

EDITORS PRESS:—H. E. Hayes, Master of the Oregon State Grange, arrived here from Sacramento on the 4 P. M. train and was escorted to the Stanger House by the writer. At the appointed hour we repaired to the Christian Church, which had been kindly proffered for the occasion, and were greeted by a few earnest men and women who had come out to hear Oregon's live Master Patron. For one hour and a half Bro. Hayes held the audience spellbound; every eye was riveted upon the speaker throughout his discourse. He began by a review of the history of the Grange from its earliest inception, expounding the righteous principles upon which it was founded, the absolute necessity of becoming organized if this community as well as every other agricultural section would hold an even hand with other industries of the land. He thoroughly surveyed the whole field of grievances of which the farmer complains and clearly pointed out the best remedy devised from a Grange standpoint.

At the close of Bro. Hayes' address, brief remarks were made by the writer and others, and I believe that the Grange can be revived here, though it is the opinion of some of the best farmers here that if the Grange is re-established at Dixon and Vacaville, between the two the needs of the community will be fully met.

We go to Dixon to-morrow and expect to meet a large audience there to-morrow night. Will give you a report of the meeting in time for Saturday's issue of the PRESS. F. B. L.

Elmira, Feb. 10.

W. M. Hayes at Santa Rosa.

EDITORS PRESS:—Santa Rosa Grange extended an informal reception to W. M. Hayes of Oregon, on the evening of Feb. 4, at the home of Past Master Coulter in the suburbs of Santa Rosa. The evening was pleasantly passed in interchange of greetings and a good talk from Bro. Hayes.

The next morning, a dozen Santa Rosa Grangers escorted Bro. Hayes to Two Rock Grange hall, it being their regular meeting day, and saw the third and fourth degrees conferred on a class of ten. The officers of this Grange, with the exception of Master and Secretary, are newly elected, and deserve much praise for the creditable manner in which the work was rendered. Only three rituals were seen, two of those being used by minor officers. The hall is new and one of the pleasantest I ever visited. I think our W. M. of State Grange would hardly criticize their work if he should visit them. A bountiful feast was spread at noon in their banquet-room by the Two Rock Matrons, in a manner never excelled by any other Grange. At an open meeting in the afternoon, we listened to a twenty-minute prelude by Bro. Coulter, followed by Bro. Hayes. Both addresses received the closest attention and were frequently applauded. I was told that another class was being started, one name having been sent in. Wonder if Two Rock Grange will be the banner Grange this year? I think it begins to look like it.

Bro. Hayes left early this morning for Yuba City. ONE WHO WAS THERE.

Bro. Hayes at Two Rock.

EDITORS PRESS:—Two Rock Grange entertained Bro. Hayes on Feb. 5th. The day opened with rain, but clear weather prevailed after sunrise.

At 10 A. M. the members of the Grange began to assemble. The decorations of the hall and preparations for conferring the degrees were soon finished, when Grange was called to order and the regular business transacted until conferring degrees was reached, when the W. S. announced that Bro. Hayes, P. M., S. T. Coulter and a large delegation of Santa Rosa Patrons were in waiting in the ante-room. He was directed to admit them, and after introductions and hand-shaking, work was taken up in the third degree and a class of ten initiated into its mysteries.

After recess, Grange was opened in the fourth degree and the same class was again brought in and made Patrons of Husbandry—Bro. Hayes officiating and exemplifying the unwritten work.

The ceremonies were rounded out with the Harvest Feast. After all had partaken, Grange was called to order in open meeting, when Bro. Coulter was introduced and made one of his usual practical speeches.

At the close of his remarks, Bro. Hayes was called up and delivered an address replete with good sense, wit, and earnest, thoughtful advice and counsel, when the audience dispersed. I wish to commend the interest taken by our members. Out of a total membership of 60, 54 were present.

Bro. Coulter took Bro. Hayes home with him, and by this time I hope he is sowing the



good seed among the farmers of the Sacramento valley.

Bennett Valley Grange was represented at our meeting by Bro. A. P. Crane, but to our regret none of the Sebastopol brethren were present. I presume that our invitation was not received in time. We only knew a short time before that we could secure Bro. Hayes in this county, and then we had to rush things to get ready; called two special meetings in less than a week.

We received two applications for membership at this meeting, and I think the results of the day's work will add many more to our numbers. It is true that our growth may be retarded by the Alliance boom. We have Alliances to the right of us, Alliances to the left of us, and Alliances in front of us, volleying and thundering; but conscious of the rectitude and the noble purposes of our Order, we will ever cherish and hold fast to the grand old Grange and will aid in promoting the welfare of the Order according to our ability—knowing full well that while other farmers' associations may equal it, none can surpass it in usefulness and the inculcation of the higher principles of manhood and womanhood among its members.

Two Rock, Feb. 9.

A. P. M.

Meeting at Dixon.

EDITORS PRESS:—There was a very fair attendance at the meeting at Dixon hall to-night appointed for Bro. Hayes' lecture. Just before the opening of the meeting, E. W. Davis, W. M. State Grange of California, entered the hall, lending cheer and encouragement to the assemblage.

Mr. McCune, a prominent farmer, was chosen Chairman of the meeting and Mr. McMahon Sec'y. W. M., Hayes was introduced and entertained the audience for 1½ hours, eliciting profound attention, followed by California's Worthy Master in his usual able and instructive style. Considerable interest was awakened, and after brief remarks by a number of citizens commendatory of the objects of the Order of P. of H., it was moved and carried that a meeting be announced for Saturday, 1 P. M., 21st inst., for the purpose of reorganization of Dixon Grange—a number of persons desirous of entering the organization being either temporarily absent or living at some distance away. A sufficient number has signed petition to organize.

Dixon, Feb. 10.

#### Capt. Hayes in Colusa.

It is hoped that some appointments will be announced in local papers for meetings for Worthy Master Hayes of Oregon next week in Colusa and adjoining counties. As the period of notice must be short, extra pains should be taken by Patrons and farmers to extend information of so important farmers' meetings.

#### California Farmers' Institutes.

##### Action of the University Regents on Grange Petition.

Reports of the regular meeting of the Regents of the University, on Tuesday of this week, state that a special committee reported on the request of the State Grange that Prof. E. J. Wickson be authorized to travel throughout the State to lecture and instruct farmers and others in the agricultural districts as to the best crops to plant in their sections and how to raise them, and to carry into effect a system of farmers' meetings, similar to those in operation in Wisconsin; that his present title be changed to "Assistant Professor of Agriculture, Horticulture and Entomology;" that an assistant in entomology, at a salary not to exceed \$1800 per annum, and a veterinarian, at a salary not to exceed \$1500, be appointed; that Dr. R. H. Loughridge be appointed assistant in agricultural geology and agricultural chemistry, at a salary of \$2000 per annum. The full report of the committee will be printed and a copy sent to each Regent. It will be acted on at the next meeting.

#### Celebrate Washington's Birthday.

We hope that every Grange will have patriotic exercises commemorative of the birthday of the Father of our Country. It is one of the best occasions of the year to bring out the patriotic spirit and talent of our young folks. Let the Lecturer, with the Committee on Woman's Work, in each Grange, take this matter up and give the young folks a benefit and the old folks the pleasure of a well-spent day in the encouragement of the rising generation. As a rule, we should say, invite all the children of the neighborhood and make an object-lesson of one of the benefits of the Grange.

THE annual meeting of the State Grange will be held at Haywards in October, 1891, and this town will have for nearly one week 600 to 1000 visitors to feed and entertain. We understand the Native Sons' hall has been secured in which to hold the sessions of the Grange, and although the time of meeting is some time ahead, we speak of it now so that the citizens may have ample time to discuss the importance of a visitation of this kind. It will be to our interest to make the visit of the representatives of this Order pleasant while with us, that their recollection of our little town may be most agreeable.

—Haywards Journal.

## FARMERS' ALLIANCE.

SUBSCRIBERS wishing fuller information of the Alliance can have their names changed to the Grange Edition of the RURAL PRESS free, much to their advantage, this department being continued in the same.

### The Kansas Senatorial Contest.

We have read with a great degree of interest and some small degree of amusement, the very varied comments of the press on the result of the recent Senatorial contest in the Kansas Legislature.

While some of the more liberal are inclined to be generous, and allow the industrial classes to organize on the same basis, and to the same ends that other professions have for many years been organized, it is quite noticeable that large numbers of the so-called corporation and political boss press are making faces, and throwing out such epithets as "fool," "knave," etc., and are employing the usual tactics to browbeat, and failing in that, to scatter the influence of the Alliance; but it will be found later that the Alliance has come to stay, not necessarily as a political organization, but for more practical purposes, and that for the next quarter of a century or more it will, in some way or other, out something of a figure in politics—just how, will depend largely on the action of the old political parties.

If the Democratic and Republican representatives shall meet in our legislative halls and rectify the mistakes (?) of their predecessors by passing laws in the interest of the general community, well and good; the Alliance will feel no need of a political organization. If, on the other hand, they continue the practices of their predecessors; if they introduce bills that if enacted into laws would be for the public good, but with the understanding that they are to die in the committee-room, and substitute in their stead laws for the upbuilding of the few at the expense of the many; if the old parties shall continue to elect men to make our laws who through ignorance or design will clothe the law in language that the most intelligent of earth do not and cannot understand alike; if they shall continue to nominate and elect Judges for our courts whose decisions shall be a direct contradiction of the law itself; if the one party shall oppose a good law purely because it was introduced by the other, and thus flit away their allotted time with great expense and no profit to their constituents, while the business, social and moral interests of the State are suffering for wholesome laws—then what? As an Irish friend once eloquently remarked, "God only knows, and He won't tell."

It seems that in Kansas the capitalists and political bosses had hoped, by combination or otherwise, to defeat the wishes of the masses or divide the votes of their representatives and thereby re-elect Mr. Ingalls. Failing in this, their hope now is that the man who was chosen in his stead will be recreant to his trust and untrue to his constituents, or perhaps still better, incompetent for the responsibilities that await him. In this it is hoped they will be disappointed. Efforts will doubtless be made to corrupt or weaken him and his coopers in our State and National Legislatures. If those efforts should be successfully made, then the industrial classes (should they conclude to go into politics to stay) will have to turn to the practice we have always advocated, to wit: to elect no one to serve them in public office unless he is true and tried and except his interests are their interests.

The idea of electing a man to make laws for the people to live under, whose livelihood depends on keeping the laws badly confounded, has always seemed ridiculous.

It appears that two or three of our State Legislatures are under the control of the Alliance members, but the victory is not yet. We conjecture that every effort will be made to impede their progress and that many stumbling-blocks will be thrown in their way. Should they surmount the difficulties before them as lawmakers, they may find themselves confronted by executive and judicial officers, bent on destroying the fruits of their labor. In this event, brethren, the remedy is simple and easy of access: Change your constitutions so as to enable you to elect men from the various walks of life, men who are interested in good government and fair play, to occupy the bench.

But it is to be hoped that the leaders of the two old parties will profit by the lessons they have learned, that wholesome laws will be made, and that they will be honestly and intelligently administered. To this end let us hope and pray.

AN IMPERATIVE DUTY.—Every Alliance, State, County and sub, should demand emphatically, repeatedly, vociferously, that the Government foreclose upon the Union and Central Pacific roads and seize upon the numerous branch lines constructed from money due it by them; when so taken possession of to operate directly for the people. These roads owe \$70,000,000 compounded at six per cent since '65—enough to pay for half the actual cost of every railroad west of the Mississippi. The Government operation of railroads is bound to come, sooner or later, and the Alliance should make every effort to have this opportunity taken advantage of, both for the living and generations yet to come.—Farm View.

## San Joaquin, Stanislaus, Etc.

EDITORS PRESS:—There are now in San Joaquin county 17 Farmers' Alliances with a total of nearly 500 members. As the work in Stanislaus county has been in the hands of Bro. J. S. Witherell of Ceres for a month past, I do not know the exact number of Alliances in that county, but there are at least eight, with a total of say 300 members. I have found brothers in this county to assist in Calaveras, Amador and Sacramento counties—at least they have promised to do so and have been commissioned: Bros. Edward Davis and J. H. Duncan of Linden for Calaveras county, Bro. D. M. Town of Elliott for Amador, and Bro. J. M. Benson of Elliott for Sacramento. Bro. J. D. Huffman of Lodi is also commissioned for Sacramento county, but is at present hindered from work there by jury duty. Bro. Duncan is County Deputy for San Joaquin.

If I should begin to enumerate the kindnesses and assistance I have received in this work, I would scarce know where to stop; but I will say that I am particularly indebted to Bros. F. L. Bourland, Woodbridge; E. G. Williams, Stockton; and E. L. Moore, Atlanta, for unusual favors.

I send you a copy of the Constitution adopted by the San Joaquin County Alliance and also the General County Regulations approved by that body and submitted to vote of the entire membership for adoption. I call attention to the provision regarding "Expression of Opinion" and Section 3, Article I, Constitution. The provision regarding expression of opinion has also been adopted by Stanislaus county in a somewhat different form.

County Organizer J. H. Duncan of Linden will no doubt keep you posted regarding this county from now on, and Sec'y J. O. Davis or Lecturer J. S. Witherell regarding Stanislaus county.

In addition to regular work of organizing sub-Alliances, I have spoken, in the last three weeks, at Waterloo, Farmington, Linden, Ballota and Macville for the benefit of sub-Alliances already formed, taking in 55 candidates at those places.

F. P. Cook,  
Deputy State Organizer.

Stockton, Cal. Feb. 3 1891.

### For Industrial Reforms.

At a recent session at Washington, D. C., of the Council of the F. A. and I. U., a resolution was adopted petitioning Congress to enact a law providing that all U. S. vessels carrying full outgoing cargoes, two-thirds of which shall consist of home agricultural products, shall be allowed to enter and discharge, free of duty at any U. S. port, all returning cargoes consisting of manufactured products.

The Committee on Plans recommended the formation of Congressional District Alliances in each State and Territory, with a Lecturer in each district.

Several measures recommended by the Omaha convention were adopted—among others, the sub-treasury and free-coinage bills and anti-lottery law.

L. L. Polk, President of the Council, A. E. Cole of Michigan and U. S. Hall of Missouri were appointed a Standing National Legislative Committee.

A resolution was adopted providing for the formation of an Alliance Press Bureau of Information at Washington to collect and disseminate authorized Alliance literature for the use of the press.

### A Candid Opinion.

A vigorous but conservative member of the Farmers' Alliance writes as follows:

I have been opposed to extreme ideas, and have only come to believe in Government ownership of railroads to save the Government from being cheated out of the whole amount due. I feel sure the railroads of the United States are rushing headlong toward the absolute Government ownership of the roads. The popular clamor has now reached such proportions that all that seems wanting to cause conservative men to join the cry is for the railroads to keep crowding the producers a little harder and doing in fact just as they are doing; but I want the action of the Government to be deliberate and not hasty. We don't want any such mistakes as negro suffrage has proven to be, perpetrated again.

CO-OPERATIVE STORES.—At a recent meeting of the San Jose Alliance, C. H. Dawson read an interesting paper on the above subject, stating that the Leeds (Eng.) Co-operative Society was established in 1847 and has been a great success. Its profits for the last fiscal year were \$416,890. Several members discussed the feasibility of establishing a co-operative store, and the matter was referred to a committee of five. The question of securing co-operation of other Alliances to obtain needed reforms was referred to the Legislative Committee. County Lecturer Rigdon was commended to the attention of sub-Alliances. Two applications for membership were received and two new members initiated.

CALAVERAS ALLIANCE, No. 1, has been organized at Stone Corral, with 18 members. President, J. M. Sinclair; Sec'y, Froane Gregory. The credit for the organization is due to Deputy State Organizer Frank P. Cook, whose labors were unremitting and who secured the good-will of all.

## Alameda County Rural Homes.

(Continued from Page 133.)

pear, peach, apple, prune, fig and persimmon trees into beautiful grounds skillfully laid out about the house; here lawns, flowers, hedges, palms and pampas intermingling with ivy, oranges and acacia with a luxuriance truly Californian. From the thrifty orchard on the west, outlined by a row of tall poplars, to the broad eucalyptus groves extending back to the extreme eastern boundary, this farm is a practical and exquisite piece of landscape farming.

The lower engraving shows the house, but only a very limited portion of the grounds, of "Lanrel Farm," the property of J. H. Strobbridge, best known to RURAL readers during the last decade as a leading importer and breeder of Spanish merino sheep, but Mr. Strobbridge's chief public work has been as superintendent of construction during the difficult building of the Central Pacific across the Sierra. The engraving presented herewith gives but a faint idea of the place; to appreciate it fully one should see the admirable surroundings, the hills, the river, the groves, the orchards, the whole joining together to form a picture of rare beauty and variety—a pleasant retreat indeed for one who has led a laborious and busy life, such as that of Mr. Strobbridge in his responsible position. Here he is enjoying the comforts of life surrounded by his estimable family. In his stables he has a number of fine horses, foremost among which is Centello, a handsome three-year-old stallion by Antevolo, out of Electioneer, whose dam was sired by Geo. M. Patchen, Jr., from a thoroughbred mare. Every arrangement of the place seems perfect and appropriate, comfort and beauty being equally consulted. It is with pleasure that we present this illustration of one among the many of California's choicest country homes.

### A New Rule for Importing Animals.

Collector of the Port Phelps has received the following circular from Acting Secretary Nettleton of the Treasury Department, Washington, D. C., relating to the importation of animals for breeding purposes only:

Upon the recommendation of the Secretary of Agriculture, who states that the production of the certificate of registry with the affidavit of identification is considered sufficient to indicate the purity of breeds of imported animals, Department Circular of October 30th last (Synopsis 10,305), is hereby amended so that upon the entry of animals claimed to be specially imported for breeding purposes, under Paragraph 482, free list of the Act of October 1, 1890, the "certificate of purity of breed given by the breeder of the animals" will not be required.

The other proofs, however, provided by said circular, including the duly authenticated Consular invoice, certificate of identification, signed and sworn to by the importer, and the certificate of the pedigree of the animals, must, in all cases, be produced.

### Reduced Letter Postage.

At the annual meeting of the Eastern Nurserymen's Association, held in Rochester, January 28, 1891, it was unanimously resolved that it would be for the general interest, and that nurserymen are in favor of a reduction of letter postage to one cent. A special committee was appointed to invite the co-operation of other business societies and the support of the press. Their circular adds: "Will you lend your assistance to the measure? We learn that the Postmaster-General has recently asked for suggestions from many postmasters on this matter. Please see your postmaster and give him your ideas favorable to such a change at once; also call it to the attention of organized societies and Boards of Trade, etc." The secretary to whom communications may be addressed is Geo. G. Atwood, Geneva, N. Y.

CONCERNING SPECIMENS FOR EXAMINATION TO THE EXPERIMENT STATION.—Prof. Hilgard informs us that great inconvenience frequently arises from the omission to place the sender's name and address on sample packages sent separately from letters concerning the same. Those desiring replies to their questions should remember that others besides themselves are sending specimens, and that the trouble arising from the omission mentioned is not only a gratuitous and vexatious addition to the labor of examination, but must frequently result in a failure of identification and a consequent omission of the sample from consideration. Then the Station is blamed, when in reality the fault lay in the neglect of the sender to take the slight trouble of putting at least his name on the sample package. The station would be entirely justified in refusing to consider any specimen arriving without such mark.

DEATH OF COL. PATTERSON.—The older readers of the RURAL will hear with regret of the death of Col. J. M. Patterson of Alameda county. He had passed his eightieth birthday. Twenty years ago he was associated with his brother John D. Patterson, who was one of the earliest and most extensive importers and breeders of fine wool sheep in this State. He retained his mental and physical vigor and activity remarkably to his latest years.





### Longing.

Of all the myriad moods of mind  
That through the mind come thronging,  
Which one was ere so dear, so kind,  
So beautiful as longing;  
The thing we long for, that we are  
For one transcendent moment  
Before the present poor and bare  
Can make its sneering comment.

Still, through our paltry stir and strife,  
Glow down the wished ideal,  
And longing molds in clay what life  
Carves in the marble real.  
To let the new life in you know  
Desire must open the portal;  
Perhaps the longing to be so  
Helps make the soul immortal.

Longing is God's fresh heavenward will;  
With our poor earthward striving,  
We quench it that we may be still  
Content with merely living.  
But would we learn that heart's full scope  
Which we are hourly wronging,  
Our lives must climb from hope to hope  
And realize our longing.

Oh let us hope that to our praise  
Good God not only reckons  
The moments when we tread His ways,  
But when the spirit beckons;  
That some slight good is also wrought  
Beyond self-satisfaction,  
When we are simply good in thought,  
Howe'er we feel in action.

—James Russell Lowell.

### Ben's Old Hat.

An auction was going on at the old yellow farmhouse on the hill. Bachelor Barker was dead, and his heir, a young nephew he had never seen since the boy was four years old, had come down to sell things off. Rumor said that he intended to tear down the old house afterward, and take money from the bank and build a fine new residence with a mansard roof.

"It is a shame," said one or two. "Such a pity Barker did not make a will. He must have had some intentions about such a property. He never could have intended all that wealth to go to a boy he did not like enough to ask him over for the summer."

The doctor felt sure he would have founded a hospital and placed him in it as resident physician for life, if the will had been made.

The clergyman knew he meant to do something for the church. The professor had heard him speak of a free library and reading-room. Every one knew something, and all the far-away cousins had expected legacies.

Every one thought the arrangements all wrong but the heir and the auctioneer, who had made an inventory of the old furniture—the tall clock, the andirons, the solid table with leaves, the spinning-wheels, big and little; the fiddle-back chairs, and all those other possessions adored by the fashionable to-day, but utterly despised twenty years ago as "old things not worth keeping."

The young heir would, if he built his villa, furnish it with "eets" of the latest style, with Brussels carpets with white grounds and bright wreaths of roses scattered over them.

"Can't get much for the old stick," he said; "but I'd like to clear up and be done with it."

Miss Camiola Brown, sitting at the front up-chamber window, cutting out calico short-waists for Mrs. Black's five little boys, laid down her shears for once in her life, and, with her elbows on the sill, watched the people as they walked or drove past and entered in at the gates of the late Mr. Barker's premises.

"Poor Benjamin!" she sighed; "I wonder whether up in heaven he remembers the day when he took me in and walked me all over the house?"

"The things are old-fashioned, Camiola," he said to me; "but they were mother's—and before that they were grandmother's. I like them, but say the word and I'll new furnish." "No, Ben," says I; "what your ma liked to have I don't want to alter. I like it all; it's good stuff; and then he kissed me."

Miss Camiola felt for her handkerchief as she said this to herself. "And we stood at the grand widow and looked off toward the mountains. 'We're going to be happy as ever folks were,' said he; here the tears began to fall. 'O Ben!' she sobbed; 'to think we quarreled after that and didn't speak when we met. But you never married, and I refused two offers—good ones. Ben, I guess we'll meet up there some time and make up.'"

Poor old Camiola put her head down on her arms and cried softly among the purple blossoms of the wisteria that veiled the window. No one could see her from the road. But her tears dried soon, and she came back to the present.

They were selling the old furniture at auction. The claw-footed sideboard, the settle, the big mahogany cradle in which four genera-

tions of babies had been rocked—all these dear old things that once were to have been here as Benjamin Barker's wife; and she was a poor seamstress, an old maid going from house to house for her board and fifty cents a day; looking forward to feeble old age, and with an awful dread in her soul of becoming "town poor" at last.

If she had married Ben, how different it would have been.

"Why, Miss Camiola! you've been a cryin'," said Mrs. Black's loud voice, just then, in her ear. Camiola started guiltily, but she was too candid to complain of a cold or the sun in her eyes.

"Well, I have cried a little, Mrs. Black," said she. "You see we used to be friends, Mr. Barker and I, and I knew his ma, and I remember all that furniture, and it seems a sin to sell it and tear down the old house, and maybe root up the lilacs and strawberry shrubs and perhaps out down the trees. It was almost like home to me in Mrs. Barker's day."

"Well, it must seem a sin to any one, and more so to you, Miss Camiola," said Mrs. Black. "But don't you want to go over and see the place and what is going on? You might just as well take a day or the rest of it. I'm in no hurry, and you look tuckered out."

Mrs. Black was kind in her way, and felt a certain pity for Camiola. She had heard that Camiola was once engaged to Mr. Barker and might to-day have been a rich and important widow, instead of a poor, lonely seamstress.

"Go along, Miss Camiola," she added; "I know you want to."

"Did she want to?" Camiola asked herself, and her heart answered "Yes."

She would see the old home once more, see the old furniture, and when she could get a chance she would go up garret and stand where she stood with Ben that day. Her old elbows would lean where her young ones had pressed; she would look over the mountains and fancy herself a girl again, with Ben beside her and his engagement ring on her finger.

And Miss Camiola thanked Mrs. Black, put on her show bonnet with the washed ribbons, and the shawl that had been so good once, but was faded, and even mended now, and walked up the road and turned into the lane and entered the Barker garden.

The smell of the shrub came to her; the lilac flowers were gone, but the willow branches kissed her bonnet as she passed under them.

The neighbors who saw her nodded or spoke, but they were selling the tall clock, and there was some excitement. Camiola stood at the door awhile and listened to the bidding. Deacon Hickory got the clock; Mrs. Amos Mole the clawfoot sideboard. A Jewish lady from the village bought the trunks of women's clothing sold unopened, for next to nothing. Ann Barnaby, the washerwoman, got the tubs and irons cheap in a lot, and so on and so forth.

To Camiola it all seemed tragical. She went upstairs where people were poking the bed and pillows, and examining the toilet sets and curtains, and she began to mount the garret stairs.

"Nothin' up there," said a well-meaning person who was descending. "Tain't worth while to lose breath a climbin'."

Camiola did not answer.

Nothing up there! How little people knew. There was the window at which two lovers had plighted their vows. There, perhaps, lingered some ghost of her dead past, and his who had died elderly and a bachelor.

As her head rose above the floor she gazed eagerly about her. From the rafters hung some branches of withered herbs and some ropes of onions. The trunks had been carried down and an old bureau. A coat hung upon a peg; over it a hat. Camiola went to the window. She would not cry, for she must face those people downstairs again; but she uttered little moans of anguish as she stood there. She realized what life actually is at that moment, and it seemed very cruel to her—once young, beloved, pretty and hopeful; now old, unloved, wrinkled, and with nothing to wish for. No wonder that she suffered.

At last she turned her back on the eternal mountains—unchanged while lives were lived, and while youth fled and love departed and graves were dug—and saw Ben's coat upon the wall; Ben's coat—an old man's coat worn long and carelessly; a big, broad-brimmed, soft hat. The woman went closer. She nestled up against the coat, and caressed it, and talked to it, and she took the hat in her hands and kissed it. It was worth nothing. It had rain stains on it. Its shape was odd. Nobody wanted it. But what a relic it would be of Ben! Only she could not ask for it.

She could take it—hide it under her shawl—all folded flat as it would be—and keep it forever. Ben's hat—her Ben's hat! Why, she had a right to it.

And Miss Camiola obeyed the impulse, took the hat and hid it neatly away. It seemed almost as though it were a theft; still it would not be wrong to take it.

When she came home Mrs. Black told Miss Camiola the walk had done her good; her cheeks were quite red; but she went early to bed that evening. She bolted her door and undressed in a hurry. She put out the light. Then she felt for her shawl in which the hat lay folded, and took it in her arms. A certain perfume that was always connected with Ben's hair was faintly noticeable—an odor of hergamot. It brought the past back vividly. It almost seemed as though Ben's head rested on her heart. She clasped the old hat close and kissed it.

"Oh, Ben," she whispered. "I was always ready to make up; but you were rich and I was poor; and I was proud. Oh Ben! oh, Ben, Ben, my darling!"

And for hours she lay awake—the Camiola of the past—in the darkness, which blotted out the changes in her face, and fell asleep at last, and dreamed of young Ben and his perfumed hair, and heard him once more say that they would be happy together.

She awakened suddenly, in the early dawn, and came back to herself. She dressed herself; smoothed her prim bands of hair; tied on her black apron with pockets; pinned the cushion and the sheaths of scissors at her side, and then looked at the hat. Of course it must be hidden away, and she spread a newspaper on the bed in which to wrap it, and paused to look at it again.

The inside of the hat presented itself. The piece of leather which lined the crown looked ominously thick. She touched it with her hand. Under it was a long paper folded into a narrow slip. She drew it out and saw that something was written on the outside. Taking the paper to the window, she saw that the words were these: "The Last Will and Testament of Benjamin Barker."

At this Miss Camiola began to tremble from head to foot, but she was a daughter of Eve. Softly and reverently indeed she opened the will; but she did not open it and read it through, and when she had finished she crept into bed again and lay there sobbing for a long while; for in it she had found strange things. Some of Benjamin Barker's money had been left to the hospital, some of his land to the church and there were legacies for many people; but the homestead with all its furniture, garden and farm land, and an income on which she could live luxuriously, were bequeathed to "Miss Camiola Brown, spinster, in memory of the love I bore her all my lonely life."

No wonder poor Camiola wept.

But Mr. Black soon found out the cause of Camiola's agitation, and Mr. Black was a lawyer. The will was correctly made; the witnesses were found.

Why Benjamin Barker had put it in his hat lining no one knew. He often carried papers there. Perhaps he meant to leave it in safe keeping, but he died very suddenly with hat and coat on, as he was about to drive out. But the will was found and was all right. Nothing had yet been taken away. The money was refunded to the purchasers of the old furniture.

The young nephew had a tolerable legacy, and made no fuss whatever; and one day Camiola entered the homestead as its mistress. It was a strange ending to her love story, she thought. She was here at last—but how? It almost seemed to her as though some spiritual union had taken place between her soul and Ben's; and in the keeping-room, on a peg near the door, she hung his coat and hat. There they hung always, and to the stranger who sees them, and looks at the mild old lady rocking in the great chair as she sews or knits, it seems as though the master of the house were within—upstairs somewhere, perhaps. It even seems so, too, to Camiola.—Mary Kyle Dallas.

### Abstract and Common Nouns.

During an etymology lesson a mistress obtained an answer from a girl which may be characterized both as ingenious and ingenious. The lady was dealing with the common nouns and their cognate abstract forms. In order to insure that the class should thoroughly apprehend the subject of her discourse, she took care to put before them the very plainest examples, such as (common noun) judge; (abstract noun) justice; (common) coward; (abstract) cowardice, etc.

She then surmised that she might safely venture to elicit from the girls themselves a few examples of such cognate forms. Accordingly, toward the close of the lesson, she made the request.

After some time, one child timidly raised her hand.

"There's a good girl," said the teacher; "now, what is your example of these common and abstract forms?"

"Please, ma'am," answered the girl, "(common) body; (abstract) bodiloe!"

I need scarcely remark that the governess decided that her class required at least one additional lesson before being subjected to a searching examination.—Chambers' Journal.

FAINT hearts seldom win. It is the man of intelligent faith who commands respect. When great things are to be done for Christ the Holy Spirit inspires men of courage to do them. The timid Melancthon would have failed as a reformer but for the bold Luther. Cowardly Peter alone would have failed to plant churches everywhere. It took that brave Christian soldier, Paul, to travel over sea and land, founding churches among the Gentiles. We need men of such spirit. There seems little now of the stuff that they used to make martyrs of. There is more of the trulent spirit that hews to the spirit of the world, which unfailingly brings reproach and defeat to the cause of Christ.—Christian Instructor.

DE MASCUS—I hear poor White is lying at the point of death. St. Agedore—Lying, eh? Well, well; the ruling passion strong in death, you know.—St. Joseph News.

THE faster a man runs in debt the less he is apt to get ahead.—Elmira Gazette.

### Winter Pictures in a Mountain Valley.

[Written for the RURAL PRESS by MARY P. ARMS.]

There are pictures everywhere if we will but see them. If only tangled lines and unmeaning stretches of earth and air meet our eyes, it is because we are mostly busied to get over the ground, to pass to and fro, because we are too intent on our own personal interests to see the wonderful pictures placed for us on all sides, in common places and on commonplace days, everywhere and in all times and seasons. The autumn days were full of these pictures. There were leaves dyed red as if to recompense us for the departure of the flowers. The stacks of grain or straw with their promises of winter cheer for our dumb friends stood golden in the sunlight. The many-hued undergrowth upon the mountains smiled up at the somber pines above them. In our doorways too, where man modifies the landscape, where his needs, his tastes, his temperament gives a local coloring to the things about his dwelling-place, nature lends a kindly hand to help us. The leaves began to drift leisurely earthward in mid-autumn, but some of the larger ones well upon the trees clung tenaciously to the branches, and the early frosts and the sunshine turned them into shining gold, and they played and shimmered and danced hither and thither in the sunshine, gladdening the world around them, lifting somewhat of the weight of care from the busy autumn days.

The memory of the fullness of care of those closing days of the always busy autumn season grows indistinct; but the beauty of the landscape picturing still remains with us. The snowstorm which came in the early days of winter caused us to look "upon a world unknown, on nothing we could call our own." New shapes, new forms were everywhere; hard outlines were softened. Familiar objects with new white garments lost their old looks and assumed other proportions and forms. The evergreen trees upon the mountains were tipped daintily with ermine.

But the pictures have changed somewhat; winter pictures we are still having, for the cold and the frost are wonderful sculptors and modelers and painters.

Some warm days have come, and the snow has settled and melted away until it is but a filmy covering over the meadows, which would lie an unbroken stretch of snowy white but for the streams with ice-fringed borders wandering ribbon-like over them. The sagebrush stands a gray brown over the plains, where the thin snow covering is wrapping the grass roots during their winter sleep. This part of our mountain world is rich in pictures; the landscape stretches far to the east and south and west of us; while on the north the mountains form a panorama of rare shifting pictures, the clouds stooping low over them. The mists hovering over their tops, or wrapping them like a loose-flung mantle where their bases hedge the valley in, their peaks reaching high above the mists standing out brightly, the trees on their tops etched against the sky. Close about our dwellings the winter pictures are wonderfully fine. The dooryard trees and shrubs and vines are bare of leaves, and their interlaced filagree of slender twigs are each dressed morning after morning in garments of frostwork delicate, filmy, fine, "like a story that cannot be written or told—all beautiful." A field deep overlaid with sand almost useless through the summer, save to those whose inborn sense of woodcraft sends them thither in search of the *Romneya Coulteri*, great tufts of it in its creamy beauty, gladdening the worthless soil, the greatest growth on which is huge clumps of greasewood which forms no appetizing morsel for the hungry herds in summer, but this winter season the delicate frost pencil has wrought wonderfully with them, the slender twigs laced and interlaced with their delicate tracery so fine, so fair, so white.

It is well for us that between the inevitable duties falling so full on our lives in this secluded land, for the gratifying the artistic side of our nature these pictures are hung above, around, about, on every side, in unlooked-for places, pleasing, resting, quieting us, making us in touch with the best things. In the barnyard are horses and cattle neighborly and kind-eyed, eating leisurely from their racks, or nibbling daintily from the salt-troughs or grouped in sunny corners. The dooryard fowls, too, seek warm places and spots of bare ground, and huddle together and sing or talk in their own way, which the housewife, well used to their mode of speech, translates into rejoicing over their generous contribution to the larder.

I will close as I began by saying there are pictures everywhere, and in this winter season there are more of them than ever. The sun rises and glints the hilltops, and stretches a shifting panorama over our mountain world, shimmering, kindling, changing all day long until the sky is aflame with the sunset glow, and the purple haze rests like a benediction over the valley.

Beckwith, Plumas Co. Cal.

A PROTECTION TO GIRLS.—If the postmasters throughout the country should enforce the law in regard to the delivery of letters to parties through the postoffice, all girls under 18 and boys under 21 years of age couldn't get letters from the postoffice unless by order of the parents or guardians. Here is the law as it reads: "All letters addressed to girls under eighteen or boys under twenty-one years of age shall be placed in the care of the parents or guardians."



## Evening on Olympus.

To Adolph Sutro

[Written for the RURAL PRESS by ALICE KINGSBURY COOLET.]

Nay, come up higher still, here on this peak.  
Is it too steep? Nay, fear not, little one—  
Reach forth thy hand—there—stand up by my side.  
How the wind blows! 'Tis fresh from off the sea,  
Keen and salty, and makes one think of ships—  
That was nigh a gale—hold fast to my arm.

Now look ye there, a little to the right—  
That's the old "Mission," "Our lady of tears,"  
Built by pious hands more than a hundred  
Years ago. 'Tis there next to that tall church,  
That is the graveyard where lie buried dons  
And donnas fair from far-off sunny Spain.  
I'll take thee there some day to see the quaint  
Old tombs and vaults. It is a ghostly place.  
Wouldst hear a story of it? I'll tell thee one.  
Not many years ago, a lady young  
And fair did enter through the moss-grown gates  
And wandered up and down the leafy aisles.  
Her heart was sore and torn with grief. So quick  
To end it all, a deadly poison she  
Took from out its dainty hiding-place—  
Her bosom fair—and drank and died.

Nay, start  
Not, little one, and tremble so. Her ghost?  
I do not think it haunts the place and walks  
At night, for many die for lack of love.

Look now straight before you; that is the "Bay."  
The island? The "Goat," named from one poor  
beast

Found solitary and alone by those  
Whose boats first touched there. That is "Alca-  
traz"

A fort, child, and bristles o'er with naughty  
Guns and grim soldiers with their sabers keen;  
And there are dungeons cut into the rock,  
And prisoners—What? do I frighten you?

Look this way then! Is it not glorious?  
Hark! How it roars dashing against those rocks!  
Blue and emerald green, flashing in the sun,  
The beautiful Pacific! You cannot  
See the seals or hear them bark at this great  
Distance, but we will go there, too, some day.  
Look to your left—that is the "Golden Gate."  
There, where the frowning rocks abruptly end  
And the grim old fort, hid behind you hill,  
Narrows the waters to a passageway.  
You see no gate? Ah, 'tis but a name, child,  
For the entrance to this, our Paradise;  
But visionaries come with outstretched hands  
The gold to grasp, and, failing, quick court death.

Now look down in that valley "Dolores"—  
A name soft but sad. See how the houses  
Nestle close to each other by thousands  
And thousands; yet again there's flow'rs at each  
Door, growing winter and summer—Joseph's  
Fair lilies and roses and violets.  
Soon the grass at our feet will be covered  
With gorgeous-colored blossoms free to all.

Now the wind dies down, and see! the fog  
Rolls in. Those are "Twin Peaks" rising above  
The mists and that the statue "Liberty."  
How grand she is, guarding the fair city  
Lying at her feet! Now the smoke ascends  
From lowly cottage and from palace home,  
And tells of homely fare or dainty feast,  
And makes one hungry. You would go, child?

Come,  
Then, soft—give me your hand and we will run.  
What! Still afraid? Am I an ogre, then?  
Nay, I love thee, little one, and would not  
Harm thee for a mine of gold. Some day you  
Shall be my little wife, and we will have  
A cottage on these hills, and with the views  
So glorious, we'll envy neither rich  
Nor great of all the dwellers in the valley.  
Come, let us away!

## Chaff.

"HYPNOTISM is a great thing. I can hypno-  
tize any one, and what I desire the subject to  
do he does." "See here, professor," said the  
little tailor, "I'll give you ten per cent on all  
the collections you can hypnotize out of my cus-  
tomers."—*Harper's Bazar.*

A ROSE by any other name has just as many  
thorns.—*Ashland Press.*

THERE'S a wide difference between a self-  
made man and a summer-maid man.—*Washing-  
ton Star.*

MONUMENTAL lies can be found in almost any  
graveyard.—*Pittsburg Dispatch.*

NO COMPLAINT is made about short measure  
when we have a peck of trouble.—*Pittsburg  
Dispatch.*

MOTTO of the campaign orators: "We push  
the button, the people do the rest."—*Minne-  
apolis Journal.*

WE may shut our eyes to a painful truth,  
but we don't shut our ears—If it's about some-  
body else.—*Puck.*

WICKWIRE—I hear you have sworn off  
Mudge—Yep. It was beginning to affect my  
mind. Every time I got a little full I  
wanted to disown the tariff.—*Indianapolis  
Journal.*

JAY—Well, hy jove, Jones, how are you?  
How you have changed! Stranger—But my  
name isn't Jones. Jay—What, your name  
changed, too?—*Wasp.*

CUSTOMER—My watch which you repaired  
for me some time ago has stopped. Jeweler—  
Ah! my collector informs me that the bill is  
still running.—*N. Y. Herald.*

"WHY did you yell 'Hay' at the horse-  
car?" "In the hope that the horses would hear  
me and stop. The driver wouldn't pay any at-  
tention to me."—*Harper's Bazar.*

SNOOGINS (angrily)—Do you know that your  
chickens come over in my yard? Snooks—I  
supposed that they did, for they never come  
back again.—*N. Y. Herald.*

## YOUNG FOLKS' COLUMN.

## Grandma's Valentine.

[Written for the RURAL PRESS by FANNIE ISABEL SHERRICK.]

"It's just like her! She never could do things  
like other people. The idea of her running off  
with Jim Hawkins—as good-for-nothing a fel-  
low as ever lived—can't do nothing to save  
his life but play the fiddle."

Grandma Ames looked every bit of the indig-  
nation and disgust she felt, while Aunt Martha  
sat quite still, looking subdued and sorrow-  
stricken, as though the very heart had been  
torn out of her.

Bessie was her pet and idol, the baby she had  
raised from a wee thing when her mother died.  
Baby Bessie! She could hardly realize the  
child was old enough to be married. And to  
think she had run away, that hurt her worse  
than everything else. She had not approved  
of the match. Bessie knew that, but she need  
not have carried matters with such a high  
hand, running off in the night, as if Aunt  
Martha had been a dragon instead of a kind,  
loving auntie as kind and indulgent as any  
mother ever could be.

It made Aunt Martha choke up with tears to  
think of it. Her eyes were red with weeping  
now. For a moment she gave way to her grief,  
sobbing quietly over the garment she was mend-  
ing.

Grandma Ames straightened up in her chair  
and said with determination:

"Well, it's no use crying over spilled milk.  
We'll have to take it the best we know how.  
Now stop your sniffing, Martha; it's time to see  
about dinner. Bless me, folks can get hungry  
if they do have trouble. And just remember  
this, Martha, Bessie Ames, or Hawkins I sup-  
pose we'll have to call her now, will never set  
foot in this house again—as long as I live any-  
how."

This seemed rather hard to the meek and  
gentle-hearted Martha, but she had never re-  
helled against the decree of this iron-clad  
mother, though she knew as well as some  
others "that Grandma Ames' hark was worse  
than her bite."

However, the next morning at milking-time  
Aunt Martha might be seen holding a hurried  
interview with some one over the fence. This  
somebody was a wee body with very pink  
cheeks and a babyish face and big brown eyes  
that had a way of filling up with tears and  
looking so pathetic that nobody could resist  
them. Once this wee body threw her arms  
around Aunt Martha's neck and laid her soft  
cheek against the one above her.

Aunt Martha seemed to yield to these en-  
tretries, and she kissed the uplifted face ten-  
derly. But she shook her head gravely as she  
whispered:

"It's no use—she never will give in. She  
feels very bitter about it."

Then the wee body hurried away across the  
fields with a flushed face and tear-filled eyes,  
while Aunt Martha stood looking after her with  
a wistful longing. She gave a long-drawn sigh,  
and she went back to her milking, patting old  
Brindle on the neck with more tenderness than  
usual, and giving Speckled Foot an extra allow-  
ance of breakfast. Her heart was always over-  
flowing with love for somebody or something,  
and now that baby Bessie was gone, this love  
was bestowed most lavishly upon everything  
about the old place. There was not an animal,  
or a tree, or a nook about the ranch that did  
not remind her of Bessie.

It did not seem but yesterday that Bessie  
had been a wee tottler following her about  
from one spot to the other.

"It just reminded me of the way she used to  
kiss me when she was a baby, this morning,"  
Aunt Martha said softly to herself, drying her  
eyes upon her apron before she took up her  
pails to return to the house. She hardly heard  
what Jake was saying to her, their man of all  
work, who had come to finish the milking. But  
at last she caught the drift of his remarks. He  
was offering some consolation about Bessie.

"Yes," she said, "Bessie did do wrong, but  
she is as dear to me as ever, and I pray God to  
bless her wherever she goes."

Jake looked after her with a kind of wonder-  
ment upon his rough face. It was a love he  
could hardly understand. But he thought of it  
many times that day as he saw the neighbors  
coming and going, all of them expressing con-  
demnatory views upon Bessie's conduct, and  
Aunt Martha receiving them so serenely, her  
voice never raised once in condemnation of the  
child she loved.

"It beats all," he said, "how these women  
folks can love."

After this it was noticed that Aunt Martha  
went very often to a small white cottage on the  
outskirts of the little village. Such a mite of  
a house it might well be called a dove-cot, and  
yet it seemed large enough for the little maiden  
who reigned there—wife she was now, with a  
great tall husband who could carry her around  
in his arms like a baby.

"Grandma didn't say you couldn't come  
here, you know," Bessie would say when her  
aunt had twinges of conscience about these  
stolen visits. "You know you have two  
children now, for Jim loves you just as much  
as I do—I ran away from grandma anyway, not  
you, my darling auntie!"

Then she would love her so hard that Aunt

Martha hadn't the heart to say another  
word.

After awhile they moved away. "James  
wanted to seek his fortune," Bessie said.

"A rolling stone gathers no moss" was all  
the comment Grandma Ames made when she  
heard they had gone.

Aunt Martha seemed a little lonely and sad  
for awhile, but she brightened up when the  
long letter came, written in such a fine school-  
girl hand, with many rhapsodies about James.

Once Martha attempted to read one of these  
epistles to her mother, but there was such a  
bridling up and such an intimation of intense  
anger that she put the letter hastily aside, be-  
ing really afraid that the irate dame would  
bring on a stroke of apoplexy.

"I don't want to hear nothing about fiddlers,"  
cried Grandma Ames, who was apt to grow  
quite ungrammatical when excited. "If Bessie  
Ames wants to starve in a garret while that  
great overgrown husband of hers is running  
twice a day to a conservatory of music to learn  
more fiddling, then let her do it. He'd better  
be cleaning the streets and earning her a decent  
living—and what's more, she needn't come back  
here when she gets tired of living on love and  
wants a bite to eat."

Having thus unburdened her mind, Grandma  
Ames settled herself once more firmly in her  
rocking-chair, while Martha, who, like the  
Martha of old, was cumbered with much care,  
went silently about her household duties,  
happily hiding the blinding tears.

One day there came a letter which made  
Martha feel more sad than ever.

Bessie and her husband were going still  
farther away, across the great ocean to Paris,  
where James was to pursue his studies.

This made Aunt Martha feel particularly sor-  
rowful, because she knew that Bessie was very  
frail, and that they were in straitened cir-  
cumstances—James having nearly exhausted the  
small fortune left him by his father.

When Aunt Martha received this letter she  
went to a secret drawer in her writing-desk  
and took from it a small leather bag. This con-  
tained the savings of years.

"What good will it do me?" she sighed. "I  
intended it for Bessie, anyway, when I died."

Bessie had hardly reached her new home ere  
the check came from her aunt. She was ready  
to cry for joy, for she had feared that they  
would have to face starvation ere long, al-  
though she had never once lost faith in the  
genius of her husband, whom she almost wor-  
shipped. She wrote a letter of thanks to her  
aunt, which made that dear woman feel amply  
repaid for her good deed.

A year or two passed by bringing few  
changes to the two lonely women, although  
Grandma Ames began to show signs of failing.  
Her form was less erect than of old, her speech  
less abrupt and vigorous. Sometimes Martha  
fancied that she was softening in her feelings  
toward Bessie, but she had met with so many  
rebuffs that she dared not broach the subject  
again.

"Laws! child, who can that be coming up  
the road?" exclaimed grandma as she and  
Martha sat busy with their sewing one morn-  
ing. "It looks like Seth Newman with the  
mail. He's waving something in the air, what-  
ever it may be. Run quick, Martha, and get  
it. Bless me, I believe it's a valentine! I  
most forgot this was Valentine's Day."

All of Aunt Martha's fifty years could not  
keep her from blushing. It was thirty years  
since she had received a valentine, and that was  
lying in her trunk yet, yellow with age and  
tied with a faded pink ribbon.

"Dear me!" she cried, nervously, as she  
came back from the gate, "there's two, one  
for each of us."

She opened hers, a large, square envelope  
with a quaint and dainty card within, and a  
note, with something she folded in it.

She could not speak for a moment, but stood  
looking at her mother with the tears filling her  
eyes.

"O mother!" she cried, "it's from Bessie's  
baby. He's just four months old to-day.  
Shall I read the letter Bessie sends with his  
little offering?"

Her mother nodded assent, taking off her  
spectacles and wiping them, and clearing her  
throat, as hard-hearted old people are apt to  
do when they do not wish to show that they  
are mastered by their emotions.

"We are all so happy," Martha read,  
"James and baby and I. Baby will be four  
months old when this reaches you on St. Val-  
entine's Day. James' talent has at last been  
recognized. He has played to some of the  
crowned heads of Europe; the Paris journals  
have lauded him to the skies, and he has been  
engaged by different musical societies in Lon-  
don and America to appear before the most  
cultured audiences at prices which to me ap-  
pear fabulous. You see we have already  
started on our tour, as I write this from Liver-  
pool. James bade me inclose this little  
check as a slight expression of the gratitude we  
owe you."

"Well, I'm glad the fiddlin' has come to some  
good," grandma said sharply, fearing to give in  
too much at once.

But Martha saw her vantage ground and  
claimed it every inch.

"Now open yours, mother—let's see what's  
in it."

Grandma's hand trembled as she sought to  
break the seal, but she had no need to do so,  
for a shadow darkened the doorway, and ere  
she had time to see what was coming some one  
threw into her lap a bundle of dainty em-

broideries and laces with a dimpled face in their  
midst—a laughing baby face that looked as if it  
were just made for grandmother to kiss.

"There's your valentine, grandma; you do  
forgive me, don't you?"

Who could resist those big brown eyes and  
that sweet, pleading face and the chubby little  
fists that were flying in all directions as their  
owner made himself quite at home in his  
grandma's lap.

"Law, it's so long since I've held a baby!"  
cried Grandma Ames, trying to speak grimly,  
but Bessie knew she was vanquished and her  
mother's heart rose in triumph.

With the maternal instinct still strong  
within her, the defeated old lady was trying to  
get the baby out of its long wraps.

Leaving the two together in their delightful  
struggle, Bessie ran into the next room for a  
moment with Aunt Martha.

"She's just 'struck all of a heap,' isn't  
she?" she cried, dancing a perfect war-dance  
of delight when they were out of hearing.  
"It's worth all these months of suffering just to  
see her."

Aunt Martha was too happy to speak.

When they went back a few moments later,  
they found grandma and her valentine on the  
best terms imaginable. The young king had  
asserted his despotism by burying his hands in  
her white hair and she was punishing him as all  
model grandmothers do by kissing him ecstas-  
tically from his head to his feet and declaring  
that he was the baby of all the world.

## DOMESTIC ECONOMY

SILVER CAKE.—One pound of sugar, three-  
quarters of a pound of flour dried and sifted,  
half a pound of butter, one pound of citron,  
the whites of fourteen eggs. Beat the sugar and  
butter to a cream, add the egg whites beaten to  
a stiff froth, and lastly, add the flour with half  
a teaspoonful of pounded mace and the grated  
rind of one lemon. Just before baking, stir in  
the citron, which must have been well floured.  
Bake carefully and ice.

COCONUT CAKE.—Beat yolks of five eggs,  
one-quarter pound butter and one pound of  
sugar together until very light. Then add one-  
half pint milk, one-half pound flour, beat well.  
Add juice and rind of one lemon and two cups  
grated coconut. Beat the whites of the eggs  
to a stiff froth and stir them, with two teaspoon-  
fuls of baking powder, into the cake. Pour  
into two square pans, dust thickly with pow-  
dered sugar and bake in moderate oven three-  
quarters of an hour.

MOLDED RICE.—Boil half a pound of rice in  
water till soft; dissolve half a pound of loaf  
sugar in the juice of two good lemons and a  
wineglass of rum; strain the rice from the  
water and mix with it the lemon juice, sugar  
and rum, adding the rind of the lemon grated  
very finely; stir it all well together and pour it  
into a previously wetted mold, and set it aside  
in a cool place till wanted, when serve with a  
rich custard, flavored with vanilla, over it.

GRAHAM BISCUITS.—Put one quart of graham  
flour into a bowl. Rub into it thoroughly two  
ounces of butter or lard. Add a teaspoonful of  
salt and two teaspoonfuls of baking powder.  
Mix and rub again, until thoroughly blended,  
then add sufficient milk, about a half-pint, to  
make a soft dough. Turn out on the board,  
knead lightly, roll it into a sheet about three-  
quarters of an inch thick. Cut into biscuits.  
Place in greased pans and bake in a quick oven  
20 minutes.

EXCELLENT MINCEMEAT.—Three pint bowls  
of meat, five of apples, one of molasses, one of  
boiled cider, one-half of butter, two of raisins,  
five of sugar, two level tablespoons each of  
cinnamon, nutmeg and cloves; one tablespoon  
each of salt and black pepper, juice and grated  
rind of three lemons. Chop the meat and  
apples fine, and boil all together about two  
hours. If too thick, thin it with a little of the  
liquor in which the meat was boiled. This  
makes about two gallons, but it will keep a  
long time if you don't have any one in the house  
very fond of mincemeat.

APPLE PUDDING.—Pare, quarter and core  
six tart apples. Put them in a porcelain-lined  
kettle. Add half a pint of water and grated  
rind of one orange and six ounces of sugar,  
cover the kettle and simmer continually, until  
the apples are reduced to about one-half. Stir  
frequently to prevent scorching. When clear  
and thoroughly done, turn them into a dish  
and put them away until very cold. Then beat  
the whites of six eggs to a stiff froth. Add  
four ounces of powdered sugar. Beat again, until  
white and dry. Pour this over the apples,  
dust thickly with chopped almond. Sprinkle  
with powdered sugar. Wrap a piece of brown  
paper around the dish and place in oven until  
it is a golden brown. Serve cold with cream.

BUCKWHEAT CAKES.—Nice buckwheat cakes  
are made of four cups of buckwheat flour, one  
scant cup of yellow Indian meal, a table-spoon-  
ful of salt mixed up with three cups of hot  
water and one cup of cold milk, making the  
mixture about blood warm. Beat this latter  
vigorously, and add a cup of liquid yeast or a  
yeast cake dissolved in a cup of lukewarm  
water. Buckwheat cakes, after the first rising,  
should be raised with some of the batter. For  
this purpose, there should always be made at  
least a pint more than is used each time, and  
this should be set away in a cool place to serve  
as yeast for the next batch of cakes. These  
cakes raised with buckwheat batter will be  
better than the first raised with yeast.



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SCIENTIFIC PRESS PATENT AGENCY  
DEWEY & CO., PATENT SOLICITORS.

A. T. DEWEY. W. B. EWER. Q. H. STRONG.

Our latest forms go to press Wednesday evening.

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SAN FRANCISCO:

Saturday, February 14, 1891.

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(NEW THIS ISSUE.)

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Cattle and Hogs—P. H. Murphy, Perkins.  
Land for Sale—E. B. Ferris.  
Carriages, Wagons, Etc.—Briggs Carriage Co.  
Gopher Traps—Ira F. White & Son, Pomona.  
Poultry—W. C. Damon, Napa.  
Percheron Horses—T. Phillips, Simi, Ventura Co.

See Advertising Columns.

## The Week.

All the cyclones and anti-cyclones which have operated during the week have furnished only showers and drying winds which have exhausted more moisture than the showers bestowed. If the weather forces can show better work, they should be about it, or else people had better take to well digging and boring, ditch digging and buying pumping plants. It will not be amiss to look after these sources of supply, anyway. Many may not need them often, but they need them sometimes as badly as the traditional Texan needs a revolver. Winter flooding is being done in many places where water is available, and this followed by good cultivation is the best kind of irrigation for some growths.

The Assembly has passed the bill giving \$300,000 to the World's Fair enterprise, and the Senate is believed to be of the same mind. Oregon has gone in also to the extent of \$50,000. Nevada has resolved to hold aloof because of

the attitude of the Chicago people on the silver question, and several Southern States threatened to do the same if a proposed election law should be passed by Congress. The pathway of the World's Fair is not all flowers.

## A Report on Irrigation.

California will enjoy an excellent advertisement in the official reports on irrigation, even if measures for extension of the reclamation of arid areas by government aid should not be fully realized. There is much opposition at the East to using government money to foster and promote Western production to increase the competition with Eastern products, which has long been grievous to farmers on the Atlantic Slope. We have endeavored to show that much of such opposition is ill-conceived and unwise, and trust that it may not be too tenaciously maintained.

However this may be, as we have said, the publication of the results which are being achieved on this coast by investigators in the government service will result in attracting the attention of the world to opportunities here afforded, and will bring us hosts of individual promoters for our enterprises and will attract idle capital from all parts of the world. For this reason we look more complacently than we otherwise might upon the opposition to government aid to our enterprises which our Eastern relatives are so earnestly upholding; but it is more than likely that the truth about the West honestly set forth will disarm much of the very opposition which now confronts the measures urged by Western Representatives in Congress.

It is announced by telegraph that the report of the irrigation inquiry, with accompanying papers, will make a volume of about 275 pages. Besides the report of the special agent in charge, it will have a progress report from Chief Geologist Hay, Special Agents Nimmo and Gregory, a report from Prof. Carpenter of Colorado, two reports from Nevada by Messrs. Irish and Nichols, with papers on reclamation, the alkali soils of California, and a report of irrigation in Australia, with especial reference to Pacific Coast problems.

The Special Agent's report presented a summary of the progress of American irrigation up to and inclusive of 1890. It discusses the water supply, methods employed in irrigation, area under cultivation and ditch, character of works constructed and in progress, value of lands under irrigation and commercial importance of the products raised. It gives an extended review of the underflow theory for supplies that may be obtained from drainage waters of the earth. The artesian-wells investigation is reviewed and its results shown.

One feature of the report which will prove of most direct advantage to California will be found in a review of horticulture and irrigation as illustrated by the growth of Fresno and Riverside and other points in the State. The artesian basins of California are also carefully referred to. The estimate of 1889 of irrigated land was 3,294,000 acres. The increase for the past year is 200,000 acres.

In Arizona the estimate of the Senate Committee in 1889 was 529,200 acres under ditch. The last estimate by the Government Agent in 1890, under ditch, is 669,440 acres, of which over 300,000 are cultivated. Works in progress will reclaim 250,000 acres more.

In Eastern Washington the area under ditch in 1890 was 75,000 acres; cultivated, 35,000 acres; 1889, under ditch, 100,000 acres; cultivated, 45,000 acres.

The total given by the special agent for 1890 is 13,509,274 acres under ditch; cultivated by irrigation, 7,165,139 acres. Nearly the whole of this latter total is considered under actual fruit or farm cultivation.

One of the most important inquiries made has been into the present aspects of irrigation legislation. This shows the great interest in all the States and Territories, and an increasing tendency toward the adoption generally of some system of water ownership and control, like that known in California as irrigation districts.

Senator Stewart will introduce into the Senate an amendment to the Sundry Civil bill repealing that part of the law creating irrigation investigations by which the work was to be completed by July 1, 1891, and extending the time for completion of the report and investigations to January 1, 1892; also appropriating \$20,000 to enable the Secretary to collect and publish the information as to the best methods of cultivating the soil by irrigation.

## The Goat-Breeders' Petition.

Julius Weyand, secretary of the Angora Goat-Breeders' Association of California, has transmitted to our representatives in Congress the petition adopted at the last meeting of the association, and embodying the following pertinent suggestions:

First, to negotiate with the Government of Turkey for the permit to select and purchase a flock of at least 100 does or ewes and 25 bucks in Asia Minor, and to permit their exportation.

Second, to instruct the Secretary of Agriculture to engage some suitable person or persons to proceed to Turkey to examine goats of different localities, to select the very best obtainable, to purchase animals selected and to accompany this shipment to this country as directed.

Third, that the Secretary of Agriculture select a proper locality and appoint proper persons to remove the flock and keep them separate from any private property of this class, to attend to them, and also take charge of the propagation and care of the flock and increase.

Fourth, that the Secretary of Agriculture may set aside a suitable number of males and females, young or old, not diminishing the original number in the flock, selling them under a rule giving the different States where these animals are successfully raised equal chances, and at a price to cover expense and outlay for importation and for keeping this stock, but no more. It appears there cannot be a valid reason why this enterprise could not be added to one of the Government Experimental Stations, especially if a suitable locality can be determined upon.

The support of all goat-breeders is asked for these propositions, and those who approve them can exert due influence by addressing their representatives in Congress on the subject.

## Oleomargarine Again.

The periodic outbreak of indignation against the introduction and sale of oleomargarine in this city is now an absorbing topic among the dealers in the genuine product in this city. When the sale of oleomargarine was at its height, an association of dealers in legitimate dairy produce, called the Dairymen's Produce Exchange, was formed to look out for their interests and to see that the laws regarding "bnil butter," as it was called, were enforced. The exchange has not held a meeting for about four years, but now that oleomargarine is coming in again, will probably be revived. One of the members said to a *Call* reporter:

"It may be said that the exchange is defunct, but if there is much oleomargarine brought here, it will come to life again, as the sale of it hurts the sale of the legitimate article, and we shall see that the law is enforced."

Producers of pure butter will hear with pleasure that their agents, the commission merchants, propose to move in this matter. The dairyman is surely having difficulties enough to contend with this year without having to contend with the bogus product.

GOVERNMENT BAG MAKING.—A bill to enlarge the jute plant at the California State Prisons has passed one house of the California Legislature, and seems to be favorably looked upon. It is proposed to take up the manufacturing at Folsom, where the State has a magnificent water-power which can be utilized. It is now telegraphed from Olympia, Washington, that the Senate has passed the House bill appropriating \$100,000 toward the establishment and maintenance of a jute-bag plant at the Walla Walla penitentiary. The mill will contain 50 looms and be modeled after that of San Quentin, Cal.

THE NICARAGUA CANAL.—Ex-Senator Warner Miller of New York, President of the Nicaragua Canal Construction Co., has accepted by telegraph the invitation lately extended to him to visit San Francisco to address our citizens on the interoceanic canal. The following organizations joined in extending him the invitation: The Chamber of Commerce of San Francisco, the Board of Trade of San Francisco, the California Academy of Sciences, the Geographical Society of the Pacific, the Mechanics' Institute of San Francisco, the Produce Exchange of San Francisco.

THE QUEEN ABDICATES.—It is telegraphed that Robert Bonner says that Maud S. will be bred the coming season for the first time. She will never be driven against her record again. Sunol will be given three trials next summer to break the world's record of 2:08. It is claimed by Marvin, her driver, that she can trot a mile in 2:04 and a quarter mile in 29 seconds, a 1:56 gait.

## Death of W. G. Klee.

Many readers of the RURAL will be grieved to learn of the death of W. G. Klee, which occurred at the close of last week at his ranch near Santa Cruz. When he was obliged last fall to lay aside his work as Inspector of the University Experiment Stations, his friends feared that his days were numbered, but he had strong hope that by a quiet outdoor life he might be able to regain his strength. The relentless foe, consumption, had however secured too strong a hold upon his system, and moving quickly to its last stages, he passed away only about four months from his withdrawal from active labors. Friends speak feelingly of his fortitude and patience during the last few trying weeks of his life, of his anxiety, not for himself, but for the welfare of the little family in which his love centered, and for whom he had labored so hard to provide. But the end brought peace to the tortured frame, and on Sunday afternoon it was laid to rest in the cemetery at Santa Cruz, where a little group of old friends and kind neighbors gathered to express their respect for his memory and their sympathy for his bereaved wife and children.

Waldemar G. Klee was born about 38 years ago in Copenhagen, Denmark. His father filled a civil office, and his brothers and sisters were educated for the honorable places in professional and social life, which they now occupy in the Danish capital. Waldemar seemed less strongly endowed physically, and some open air parent seemed to promise best for him. He was accordingly educated in horticultural arts at the best Danish schools. As he approached manhood, he conceived the idea that America would afford better opportunities for advancement in his chosen line, and he came to this country at about the age of 19, and secured employment in a public park at Chicago. His pursuit of horticulture next led him to California, and he began his work here about 15 years ago. Ambitions to pursue his studies while following his art he came to the State University at Berkeley, and Prof. Hilgard, perceiving his true quality, and anxious to foster his aspirations, gave him a place on the University Experiment Grounds. Here he labored and studied, advancing his understanding of English and of botany, especially in the line of economic botany. He was a leading factor in the laying out and planting of the Economic Garden at Berkeley, and he sought far and wide for plants desirable for acclimation here, and many of the plants which have proved very popular in the University distributions are those of his introduction. He soon became foreman of that portion of the University grounds allotted to the Agricultural Department and advanced so satisfactorily in economic botany that he served as lecturer in that branch during one term.

Mr. Klee was an early member of the State Horticultural Society and a leader in discussions in his lines in that body. When the idea of showing collections of living California plants upon the grounds of the New Orleans Exposition was approved, Mr. Klee was appointed to collect, transport and install these California growths, and he discharged this duty with signal success and credit to the State.

Returning to California, Mr. Klee resumed his work at Berkeley until appointed in 1886 State Inspector of Fruit Pests by the State Board of Horticulture. This position he filled with eminent satisfaction to the California fruit-growers, going from end to end of the State spreading useful information by his personal visits and by published essays and reports. Many regrets were expressed when he was compelled to lay down this kind of work. His services were, however, in continued demand, for Prof. Hilgard secured his assistance in laying out and equipping the outlying stations of the University, and such temporary employment was soon followed by his appointment by the Regents to an office which they created, of which the title is Inspector of Experiment Stations. This was in the summer of 1889. In the winter of 1890 his limited physical strength began to show signs of inroad by his unremitting labors. An attack of la grippe followed and its after effects were still on when he obeyed a call of duty—a two-weeks vigil at the bedside of a cousin who died of consumption in Ventura county. Returning from this depressing experience, and while still weak himself, he went into the trying summer climate of the San Joaquin valley on an official errand and returned prostrated. Then followed his forced retirement, his months of illness and death.

Mr. Klee's work and its influence were wide-reaching. In addition to his writings in the reports of the University and the State Board of Horticulture, he prepared a valuable pamphlet on the date, which was published by the U. S. Department of Agriculture, also a special report on the growth of semitropical fruits in California, which formed a part of Bulletin 1 of the Pomological Division of the U. S. Department. He also made valuable contributions to the columns of the RURAL PRESS and other publications.

In 1885 Mr. Klee married Miss Jennie Barry, a graduate of the University, who, with three little ones, survive to mourn the loss which has befallen them, and in their affliction they have the sympathy of all.



Terraced Overflow Basins.

Among the many interesting natural phenomena that claim the attention of the visitor to the Yellowstone National Park, the geysers and hot springs rank first in general interest. Their novelty and beauty attract universal admiration, while the vast quantities of hot water that flow from the ground are convincing evidences of the nearness of internal heat. These steaming fountains and boiling pools are usually surrounded by snowy white borders of mineral matter deposited by the hot waters.

At the Mammoth Hot Springs this consists of carbonate of lime that forms the fretted rims of the pools and the heartily headed and coral-like deposits of the cones, and covers large areas of ground about the springs with a sheet of white and glaring sinter. Not only are the occurrence and the nature of these deposits such as make them of interest to every visitor, but the problem of their origin has proved to be one of the prominent features in the scientific investigation of the hydrothermal phenomena of the park, as it has been found that such deposits are very largely due to the growth and life of a brilliant colored alga vegetation, living in the hot waters.

Although the Yellowstone Park abounds in hot springs, calcareous hot waters are extremely rare and but one locality is known where such springs have formed deposits of travertine or calcareous tufa to any considerable extent. This is the Mammoth Hot Springs. At this place the heated waters rising through mesozoic limestone reach the surface heavily charged with carbonate of lime in solution, which is deposited by the hot waters in the form of travertine, affording an excellent opportunity for a study of the formation of this mineral. There are few places in the world where such deposits equal those of the Mammoth Hot Springs in magnitude, none exceed in beauty.

The terraced overflow basins form the most striking feature of these springs. No description can do justice to their beauty, for neither the delicate fretwork of their walls nor the frosted surface of the glistening deposit nor the brilliant colors of the pools and rims can be described. The engraving on first page of the Blue Springs, from a photograph by the U. S. Geological Survey, shows a few of the many basins, of which each differs from the others.

The walls are built up of pure white travertine, the surface resembling imbricated shells, or a multitude of miniature basins, and often covered with a brightly-colored vegetable jelly where the water is slightly cooled. These basin walls vary in height from a few inches to several feet. Their outline is rarely crescentic, usually irregular, wavy and scalloped. The water runs over the rims in thin sheets and little cascades, depositing travertine wherever it flows and constantly building up the basins until the flow is checked by the increased height of the rim. Yellow sulphur-coated algae



TERRACED BASINS OF BLUE SPRINGS, MAMMOTH HOT SPRINGS.

threads are abundant on the bowl of the spring and the rapid-flowing streams, but the exquisite blues and greens of the hottest basins are due solely to the depths of water. The bright lemon, red and green shades of the cooler pools are, however, entirely vegetable in their nature, and due to the presence of algae lining the basins and stripping their outer walls. In a general view of the entire collection of these basins, obtained from the edge of the terrace above, the effect is that of a brilliant mosaic, the colors occurring in well-defined areas outlined by the travertine rims. Looking at the pools nearer by proves that these colors are not pure, but are produced by a number of tints, minute differences in depth producing variations in color in the same basin. Large as is the overflow from the Blue Springs, little reaches the edge of the terrace, the water sinking into the porous deposit or flowing into holes and fissures in the travertine floor.

The Cruiser Baltimore.

The cruiser Baltimore is one of the class of unarmored cruisers of the "new navy" of the United States. She is 335 feet long, 48 feet 6 inches beam, 19 feet 6

inches draft and 4400 tons displacement. The propelling power of the vessel consists of two horizontal, direct-acting, triple-expansion screw engines, and boilers capable of developing 10,750-horse power when making 110 revolutions of the screws per minute. The two high pressure cylinders are each 42 inches diameter, intermediates 60 inches, and the two low-pressure 94 inches, having a piston stroke of 42 inches. The main steam valves are double-ported slides working on hard cast-iron seats.

The screw propellers are made of manganese bronze, having three blades each 14 feet 6 inches in diameter, set to a mean pitch of 20 feet with a variable pitch of 18 feet 6 inches and 21 feet 6 inches. The starboard propeller is right-handed and the other left-handed. She has four French breech-loading guns, six six-inch breech-loading rifled guns, eight six-pounder rapid-firing guns, and two gatlings. She is also fitted with five torpedo tubes.

The Baltimore is one of the series of ships built on the English drawings, and was built by Messrs. Cramp & Sons of Philadelphia. The accompanying engraving, made direct from a photograph, shows the general appearance of the cruiser.



THE UNARMORED CRUISER, BALTIMORE.

The World's Money.

Mr. Leach, the Director of the Mint, has prepared for the House Committee on Coinage a series of interesting tables showing the gold and silver estimated, and officially reported to be in circulation as money throughout the world, and the specie holdings of the leading European banks. The most comprehensive table is the following:

APPROXIMATE AMOUNT OF GOLD AND SILVER MONEY IN THE WORLD.		
Country.	Gold.	Silver.
United States	\$702,018,869	\$482,071,346
United Kingdom	550,000,000	100,000,000
France	900,000,000	700,000,000
Germany	100,000,000	145,000,000
Belgium	65,000,000	55,000,000
Italy	140,000,000	60,000,000
Switzerland	15,000,000	15,000,000
Greece	2,000,000	4,000,000
Spain	100,000,000	125,000,000
Portugal	40,000,000	10,000,000
Austria-Hungary	40,000,000	90,000,000
Netherlands	25,000,000	65,000,000
Scandinavian Union	32,000,000	10,000,000
Russia	190,000,000	60,000,000
Turkey	50,000,000	45,000,000
Australia	100,000,000	7,000,000
Egypt	100,000,000	15,000,000
Mexico	5,000,000	50,000,000
Central America	500,000	500,000
South America	45,000,000	25,000,000
Japan	90,000,000	50,000,000
India	900,000,000	900,000,000
China	700,000,000	700,000,000
The Straits	100,000,000	100,000,000
Canada	16,000,000	5,000,000
Cuba, Hayti, etc.	20,000,000	2,000,000
Totals	\$3,727,018,869	\$3,820,571,346

The silver money is classified by Director Leach, in the following table, into that which is full legal tender and that which is tender for but limited amounts:

	Full legal tender.	Limited tender.
United Kingdom	\$650,000,000	\$100,000,000
France	102,000,000	50,000,000
Germany	48,400,000	41,000,000
Belgium	25,800,000	6,000,000
Italy	11,400,000	34,200,000
Switzerland	1,800,000	3,600,000
Greece	90,000,000	2,100,000
Spain	40,000,000	35,000,000
Portugal	25,000,000	10,000,000
Austria-Hungary	61,800,000	3,200,000
Netherlands	22,000,000	10,000,000
Scandinavian Union	22,000,000	88,000,000
Russia	1,200,000	45,000,000
Turkey	50,000,000	7,000,000
Australia	50,000,000	15,000,000
Egypt	500,000	500,000
Mexico	25,000,000	25,000,000
Central America	50,000,000	50,000,000
South America	900,000,000	900,000,000
Japan	700,000,000	700,000,000
India	100,000,000	100,000,000
China	1,200,000	5,000,000
The Straits	1,200,000	800,000
Cuba, Hayti, etc.	1,200,000	800,000
Totals	\$2,929,900,000	\$408,800,000

The total stock of full legal tender silver coin in Europe is given at \$1 101 400,000.

ARID LANDS FOR THE SEVERAL STATES.— Senator Stewart reports that Senator Plumb of the Public Lands Committee has promised him that a special meeting of the committee will be held at an early date to consider the bill which cedes arid lands to the various States. Stewart says that he is urged by the Nevada people to press the bill.



## AGRICULTURAL NOTES.

## CALIFORNIA.

## Alameda.

**VINEYARD STATISTICS.**—Livermore Herald, Feb. 7: The State Viticultural Commission has employed W. P. Bartlett, of Livermore, to prepare a list of the vine-growers of Alameda county, together with their acreage in vines, varieties, and yield for 1890, for the forthcoming State Directory of Vineyards, soon to be issued by the board.

## Butte.

**GOOD OUTLOOK FOR CROPS.**—Chico Chronicle-Record, Feb. 5: Most of the grain throughout this section of the county is in excellent condition. Only that which has been sown recently is in need of rain. This will be retarded some if the pleasant weather continues, but there is no need for alarm. The ground contains a good deal of moisture from last year, and that, together with what has fallen thus far, will keep the grain moving for some time. To be sure, it would probably hasten the harvest if a good rain would put in its appearance. As a rule the farmers about here have increased their acreage considerably over the past few years and are quite pleased with the prospects of an immense crop.

## El Dorado.

**FRUIT INDUSTRY.**—El Dorado Republican, Feb. 5: Fruit-growing in this county has received a strong impetus from the successful sales of last season, and we hear of trees being planted in every quarter. In the neighborhood of Pleasant Valley, where but little has been done toward raising fruit for some time, a great many trees are being put out by various ranchers, the preference being mostly given to Bartlett pears. On the north side of the county, at Cave Valley, 3½ miles from Pilot Hill, on the Auburn and Georgetown road, a notable effort in fruit-raising is being made by D. Johnston, who has been improving a piece of land there for about five years and putting out the best varieties of shipping fruits. His place contains 640 acres, and is so well-fenced and arranged that it ought to serve as a model for those ranchers whose fences are in a chronic, broken-down condition. So far, the orchards on this place contain about 8000 trees, comprising Orange, Cling and Early Crawford peaches, Bartlett and Winter Nelis pears and some of the best shipping cherries. A novelty in this county is 1000 Mission olive trees, five years old, which are now bearing, and will soon test the adaptability of that part of the county to olive culture. The trees appear to thrive and there is every prospect that the venture will become profitable. There are also 150 orange trees and a number of Adriatic fig trees on the place, as well as a vineyard of some 20,000 vines, comprising Black Morocco, Rose of Peru, Tokay and Muscat grapes. Adjoining Johnston's place on the south is a place of about 1300 acres, all under fence, owned by Brown Brothers, who are employed on the railroad and turn their surplus funds into improving their place. They have 500 Bartlett pear trees growing and are putting out 1500 more this year. Both these places are irrigated, but another fruit-raiser of that neighborhood, Charles Niessel, is growing trees entirely without irrigation, and we are informed that his trees are fully equal to any grown in the State. He has an orchard of 1500 trees raised in this way, that are four years old.

## Lassen.

**INDIAN VALLEY FARM NOTES.**—Susanville Mail, Feb. 5: The farmers of Indian valley are all busy, plowing, repairing fences, ditches, etc. There is no fear of scarcity of water even though we have no more snow. There is always plenty of water for irrigating purposes in Indian valley, especially at the North Arm. On nearly every farm can be seen herds of fat cattle, and there is an abundance of hay to feed through the winter and plenty for sale.

## Monterey.

**GLANDERS.**—Salinas Index, Feb. 5: Dr. Buzard left Salinas on the 26th ult. and went to Slacks Canyon, where he found that a settler named Wayland had lost about \$2000 worth of horses in the last four or five years, and did not know what the matter was. He lost three horses a short time before the doctor's arrival. Dr. Buzard found in Mr. Wayland's band one glandered horse which was condemned, killed and burned. The disease was not propagated from Mr. Wayland's place, because he kept his horses inclosed in a pasture. The disease at that place was brought from Gilroy. The doctor proceeded from Slacks Canyon to Paris valley, near San Ardo, and found one glandered horse belonging to John Garriera. The horse was condemned and burned. He also found on the Trescony grant, near San Lucas, another glandered horse which was similarly disposed of. The horse belonged to a Mr. Perry. He found Long valley, Peach Tree, Hardscrabble and on the Trescony grant, where glanders existed last fall, free from the disease. The doctor reports encountering in some instances a disposition to thwart the efforts of the authorities to stamp out this dreaded disease by men who will jeopardize the property interests of a whole community for the insignificant service they can get out of a poor glandered horse. A horse with chronic glanders is capable of doing some work for awhile, and there have been one or two instances where owners of such animals, acting on a knowledge of the doctor's presence

in the county, have secreted their diseased horses in the hills. [Dr. Buzard called on us Feb. 9 and wishes us to state that in the districts he visited last year he found the horses free from disease.—EDS. PRESS.]

## Los Angeles

**SUCCESSFUL BROILER POULTRY FARM.**—L. A. Express, Feb. 6: A short distance from this city, Henry Till has established his broiler farm, which consists of about ten acres of good, loose soil, the best we have here to raise chickens on. Several incubators are kept running all the time, which keep two large brooder-houses filled with chicks. As soon as the chicks are old enough to leave the brooder-houses they are divided into small colonies and placed in roosting houses. Each house has a large yard, and the yards are planted to corn, alfalfa, etc. Gum and pepper trees were planted last summer and have made a good growth, and by next summer they will afford plenty of shade. Mr. Till started his ranch by putting up a practical brooder-house and buying an incubator. He has not an old fowl on his place and buys all eggs from his neighbors. He is now selling his largest chicks at \$4 and \$4.50 a dozen, and at present he has 3000 chicks on hand.

## Nevada.

**MOUNTAIN PRUNE RANCH.**—Nevada City Transcript: W. H. Smith has just completed planting at his farm, which is at the lower end of Cement Ridge four miles in a westerly direction from here, 2100 French prune trees. The altitude there is about 2100 feet above sea level, or 500 feet lower than this city. The orchard is the largest of the kind in the county.

## Placer.

**FRUIT PROSPECTS.**—Newcastle, Feb. 7: No bad effects are yet felt from the unusually dry winter. The rainfall Thursday was sufficient to moisten the soil and facilitate the clearing of land and the planting of trees. Fruit trees show an abundance of buds, and the prospects for another good season are promising.

## Santa Clara.

**CROPS LOOKING WELL.**—Agnew Cor. San Jose Mercury, Feb. 5: Crops in this vicinity are doing well, considering the small amount of rain. Weather continues fine, with scarcely any signs of rain. There is very little complaint from the farmers on account of dry weather as yet.

**TREE PLANTING AT GUBERSVILLE.**—San Jose Times, Feb. 5: Tree-planting is going rapidly on at the Quito farm, 2800 trees a day being set out.

## Santa Cruz.

**SUGAR BEETS IN YOUNG ORCHARDS.**—Watsonville, Feb. 5: The Western Beet Sugar Co. has recently published some facts gathered from the experience of last year about Watsonville. The expenses in this and all other cases are stated as if paid for in cash at current rates for labor and teams. Any one can see the difference in favor of the farmer who does his own work. Here is the record in a case where one-fifth of the land was occupied by fruit trees. The following is last year's record of a 20 acre patch 1½ miles from the factory sown the second week in May (after the last spring rains had fallen) with five pounds of seed per acre; rows 20 inches apart; thinned out second week in June; harvested in October:

Yield of beets, 405 160-2000 tons, or 20 508-2000 tons per acre.

Yield of sugar, 58 667-2000 tons, or 2 1832-2000 tons per acre.

Returns, \$1810.05, or \$90.50 per acre, or \$4.50 a ton.

## The expenses were:

	Per acre.
Value of rent of ground, say	\$15 00
Plowing, preparing the land and sowing	5 00
Thinning, hoeing and cultivating	4 50
Plowing out at 10 cents per ton	2 00
Topping at 65 cents per ton	13 00
Hauling at 50 cents per ton	10 00

Total expense ..... \$19 50  
Net profit per acre ..... \$41 50

These beets were planted in a two-year-old orchard, and in addition to the above-mentioned profit the young trees were benefited by the use of the land and also by the stirring of the ground incidental to the cultivation of the beets. Numerous more favorable instances might be given, showing profits up to \$70 per acre and polarization as high as 22 per cent, but we wish to point out that even at the price of \$4.50 a ton, beets are a good paying crop.

## San Diego.

**DISCUSSING CROP PROSPECTS.**—San Diego, Feb. 5: Nearly everywhere Wednesday, people were busy discussing the effects of the rain, and while opinions differed somewhat as to the outlook for grain, all were united in pronouncing the rain a great blessing, especially to stock-owners. Green feed was getting scarce and hay had advanced to \$15 and \$20 a ton. Feed will now soon be plentiful, and while a little early-sown grain has been damaged by the drought, it is thought that the bulk of the acreage seeded is assured a good crop. Most of those who have had experience here hold the opinion that all who sow now may feel reasonably sure of a good yield. At any rate, everybody feels happier and more hopeful for the liberal downpour of yesterday and last night.

**GRAIN FARMING IN TEMECULA VALLEY.**—Murrieta Valley Union: The acreage being devoted to grain this year in Temecula valley, exclusive of Wildomar, foots up 15,146 acres, as follows: Pauba tract, 5000 acres; A. Cochran and H. O. Thompson, 800 each; Joe Nicolas, R. E. Muncy and Joe Souve, 500 each;

Charles Wolf, Sparks Bros. and Carter and Aaron Gerringer, 400 each; R. B. Cassady, 350; G. H. Everett, 330; Hutchinson & Brown, Auld Bros., Claus Burfine and Charles Briggs, 300 each; A. Vial and Andrew Kittleson, 250 each; Ross Pelly, C. Banzani and E. H. Benton, 200 each; Chas. Beal, 160; Ed Beal, 150; Nathan Wilder and E. W. Everett, 140 each; Florence Keitz, 130; Lewis Platt and Ezra Macklebarker and William Harvey, 125 each; Wm. Walker and H. S. Mason, 110 each; Willis Shrode, David S. Davis, John Rawson and W. S. Pratt, 100 each; John Pingree, 90; S. A. Smith and Chas. Charnot, 75 each; Warren Bros., John Cheney and W. F. Badlong, 70 each; Miss Jestus, Drake Bros. and A. B. Sturgeon, 60 each; I. L. Palmer, Walter Sutton, Al Wagner, 50 each; W. L. Flagg, 45; G. W. Gallie and F. M. Sumner, 40 each; James Hebel, 35; Byron Walcott, Robert Venable, Harry Stevens and Fay Colby, 30 each; L. B. Lovejoy, 25; D. N. Buchanan and Edwin Jerrold, 20 each; Geo. Hind and Isaac Walters, 15; R. H. Taylor and Geo. Fezler, 10 each; Dr. Lashlee, 6.

**PINEAPPLE CULTURE.**—San Diegoan, Feb. 4: Mr. Morrison says his experience had satisfied him that pineapple culture could be successfully and profitably carried on in San Diego county. In fact, he said, the vitality shown by the plants here, and the vigor of their growth, proving as it did the adaptability of the conditions, constantly surprised him, and furthermore, caused him to wonder that the business of raising pineapples had not been undertaken before. In Florida millions of dollars were employed in growing pineapples and the business was found profitable. Pineapples were grown under glass and by artificial heat in England, and there the ground and buildings cost \$50,000 an acre, still the business was profitable. Here the cost of cultivation would be less, but the markets were about equally as good. As an illustration of the profits, Mr. Morrison said that some of his plants last year paid him \$2 each in fruit and new plants or suckers. In regard to culture, Mr. Morrison says the soil should be well prepared and worked fine. Furthermore, a well-drained and not a wet soil was wanted. In the first stages the plant needed but comparatively little water. Too much water during that time would kill the plants, as he had proved to his satisfaction if not to his sorrow. As the fruit grows and approaches the ripening stage, more water is needed, but even then the soil should be well drained so that the water would not become stagnant. In Florida, during the season when pineapples ripen, they have an average of seven inches of rain per month, but the soil there is mostly sandy and the water is rapidly drained off. In Florida they have 20 varieties of pineapples. Mr. Morrison has 12 varieties, but so far as his experience showed, they all act about the same in their growth and require about the same conditions and cultivation.

## San Joaquin.

**A SAMPLE OF WHEAT.**—Stockton Mail, Feb. 5: Conductor Stafford of the Oakland line today exhibited a sample of 1600 acres of wheat on the Hall ranch, on the extension of the road to Merced. The wheat, which is from summer-fallow land, is 2½ feet high. The new extension opens up a splendid farming country.

## San Mateo.

**ORCHARD IMPROVEMENTS.**—Redwood City Gazette, Feb. 7: A. S. Hallidie has imported 5000 German prune trees which will be set out on his place. They are of choice varieties. J. S. Dodge during the past year has put in a large number of fruit trees on his place in the East Greenwood tract. Wm. Watkins is setting out at La Honda 500 young fruit trees.

## Shasta.

**TREE PLANTING.**—Anderson, Feb. 7: Over 100,000 fruit trees have arrived here the last ten days, and more are to come. The season is most favorable for planting trees. The ground is in excellent condition, and all that is required will be the spring rains.

## Sonoma.

**CROP PROSPECTS.**—Santa Rosa Republican, Feb. 5: The general farm outlook in Sonoma county is very favorable. A larger acreage of land is being cultivated this season than for many years, and with half a show the farmer will "ride on the crest of the wave" of prosperity. One gentleman who has been over a large part of the county during the week says that small grain that had been sown early was up and growing well and that it covered the ground completely. Said another: "In some parts of Sonoma county, grass is rather short, but I have heard of no great amount of suffering among the stock." Another said that some fruit-raisers were just a little bit alarmed on account of the mild weather. They fear that it will cause the buds to come out and that an after-clap of cold weather will strike and injure them. In regard to the hop prospect, one farmer said that he heard of some hop-producers who were contracting half of their coming crop at 15 cents per pound. He thought the chances good for a fair price on hops this year.

## Sutter.

**SHIPMENT OF RAISINS.**—Yuba City, Feb. 6: John Wilkie loaded at this place a car of dried grapes, the last of his crop which he cured the past season. Over 12 tons were in the shipment, which is consigned to St. Paul, Minn.

**A LARGE GRAIN FIELD.**—Yuba City Farmer, Feb. 6: B. F. Frisbie informed us, Tuesday, that he had just finished seeding the last of his 700 acres of ground, all summer-fallow. Some

of it he has plowed the second time and a portion of it was cross-harrowed twice. He is now ready for rain, but while the weather remains dry he intends to continue harrowing until the grain is thoroughly under the ground.

## Tulare.

**TEN TIMES MORE TREE-PLANTING.**—Grangeville Cor. Visalia Times, Feb. 5: The planting of fruit trees is ten acres to one compared to last year; and it is a good sign, as it divides the fruit and raisin industry so that there will be inducements for more large packers and buyers to establish houses in this neighborhood.

**SHIPPING BY EXPRESS.**—Traver Advocate, Feb. 5: The reduction to \$1 per 100 pounds in expressage on fruit from Traver to San Francisco is highly appreciated by horticulturists, and nearly all the dried fruit shipped from here to the Bay now goes by express. The cost per hundred of freight is 88 cents, with drayage to pay. In the city, while the express company delivers the fruit free of charge for \$1 per 100 pounds. The fruit car attached to each passenger train going north through Traver each forenoon is the recipient of fruit shipments all along the line.

## Ventura.

**EDITORS PRESS:**—Farmers about Fillmore seem to have been quite busy plowing and sowing barley until it became too dry, when they took a slight rest. The rain of the 1st has again started the plows, and all are working for dear life with barley, potatoes, etc. The rain has put new life into the barley already up, and the prospects for good crops seem excellent, although more rain would help very much. There seems to be considerable improvement going on in this locality—new houses and barns, new water-ditches and new clearings for future crops, many trees and vines being set, especially oranges, prunes and grapes. Irrigation is much practiced here, and the Seepo river affords a large supply of water, besides many streams and springs in the mountains. The feed was getting quite short, and cattle-men contemplated their weakening cattle with what equanimity they could, but the late rain put fresh courage into their hearts and they go on their way again rejoicing.—S. P. SNOW, Fillmore.

**OUR BEAN TRAIN.**—Ventura Free Press, Feb. 6: The last bean train went from Ventura Jan. 6th, and was made up of shipments by Loy & Co. of Columbus, Ohio. This train was sent out as a special and made the remarkably good time of nine days. The route of the train was via New Orleans, over the Sunset and New Orleans route, thence over the Queen and Crescent line to Cincinnati. The train went through parts of Mississippi, Alabama, Kentucky and Tennessee—the heart of the Agricultural South. We can imagine the interest it must have excited in the people along the line as it thundered past, decorated with banners and flags. The product of the whole train—about 5000 sacks—was from the celebrated ranch of D. W. Thompson, near Ventura. When the train started from the station at Ventura, all the multitude of hands employed on this great ranch gathered along the track and gave three rousing cheers for "Dixie Thompson's beans."

**WALNUT-TREE PLANTING.**—Saticoy, Feb. 5: It is estimated, from careful figures, that the trees already set out and those which will be put in this month, will reach a total of 1000 acres at and around Saticoy for the past year. There is no part of the county which is making the progress just now that Saticoy is.

## Yolo.

**HOP-GROWING ON A LARGE SCALE.**—Woodland, Feb. 5: Mr. Larkin, a hop-grower from Sacramento county, has rented 80 acres of land near Fremont's Bend, on the Sacramento river, from Col. Wilcoxon, and has a large number of men employed in preparing for hop-raising on a large scale. We hope that the enterprise which has been so largely entered into by Mr. Larkin will prove a success. The hops grown on the river-bottoms of this county are of the best quality and command the highest prices in the market.

**IRRIGATION.**—Woodland Democrat, Feb. 5: L. A. Erwin, foreman of the Woodland Ditch Co., is busily engaged with a force of men rebuilding that portion of the dam on Cache creek that gave way, and expects to have the ditch running full of water within the next three or four days. This will be good news to many of our farmers who would irrigate their alfalfa-fields, as there has not been a sufficient amount of rain up to this date for the favorable growing of this valuable product. Besides, irrigation would drown out and kill the gophers, moles and other bothersome rodents that frequent the fields and greatly damage the crops.

**LAYING OUT AN ORCHARD.**—Cachoeville Cor. Woodland Mail, Feb. 7: The Yolo Orchard Co., headed by that experienced and successful fruit-raiser, A. T. Hatch, are booming things on their 400 acre tract on each side of town. They have received nine carloads of trees, numbering 28,000, which are being planted, 70 trees to the acre. Their land was first surveyed off into 500 foot blocks by an experienced surveyor, then a man of experience, with a machine made for the purpose, marked it off both ways into blocks of 25 feet square, and those marks were a miracle; a person could stand on the bank of the creek and look along one of those lines for a mile across the ranch, and not a waver of an inch could be seen. When the marking was completed, Mr. Siever, the foreman, measured a number of them with a steel tape, and stated that no line across the 400 acres was out of the way 1½ inches. A



team of 12 mules with a single plow, with mold-boards on each side, and driven on these lines, plowed a ditch 1½ feet wide and a foot deep; then a subsoiler, pulled by 14 mules, loosened up the soil a foot deeper in these trenches, then the trees were set in where the other lines crossed and filled in around by men with shovels; 20 men can in this way set out 3000 trees a day. The trees of this company will be pear, peach, nectarine, almond and prune.

**THE BOSS COW FAMILY.**—Woodland Democrat: Fred Springer of Blacks has the boss cow and family of cows on record. This magnificent cow, which is still living, has given birth to 16 calves. The first two births were nothing outside the ordinary, but for the next seven years she gave birth to twins regularly. Each time the calves were of different sex, each exactly alike in color and size, and both lived. This is a good record for a cow, but the history does not end here. Her oldest daughter grew to maturity and began raising a family of her own. Her first effort was a fine young heifer, then, profiting by her mother's experience, she went into the twin business, and for five years has given birth to twins regularly. These were also of opposite sex and all lived, thus making a total of 28. Pretty good-sized family, isn't it? But wait. You have not heard from the oldest granddaughter yet. She believes in keeping up the good name of the family, and does not propose to be outdone by any one. She has only been in business four years, but she has eight children to provide for. Again, they are of opposite sex, just alike and all living. A nice little family of 36, and only three mothers and nine years' work. Now, if anybody has got a cow story that will beat this, let him crack his whip and sail in. We want to hear it.

NEVADA

**THE SHEEP INDUSTRY.**—Reno Gazette, Feb. 5: Never before in the history of the State has there been such a winter for the sheepmen as this. There is an abundance of feed on the ranges and the weather could not have been finer for profitable results. The lamb crop promises to be very large and the wool clip as good as in any season for a long time. In this county alone there are 70,000 range ewes—a falling off of about 75,000 in the past two years. This was owing to the high price of mutton. The losses last winter were comparatively light, and sheepmen will make a profit this year of fully 33½ per cent on their flocks. Mutton has been scarce and high for three years past, and has netted the sheepmen a handsome profit and left the ranges well stocked with young and thrifty ewes. There are only 5000 mutton sheep being fed on the meadows at this time, and they have all been sold and will find their way to the shambles inside of a month. Of these, Wheeler & Ridenour are feeding 3500 and Gerlach & Fleck and McKay & McCullough 1500. Mutton sheep have averaged the producer about eight cents per pound for over a year. The wool clip will net the sheepmen \$1 per head, which means \$70,000 for this county alone.

THE VINEYARD.

A Reply to Prof. Husmann's Letter.

**EDITORS PRESS:**—In the Press of Jan. 31st I read with pleasure Mr. Husmann's letter, wherein he kindly remarks he thinks I represent the wine prospects from an erroneous standpoint. Your readers will understand that any prophecy as to the future of the wine industry is after all only guesswork; but by carefully studying the past, we have, as it were, a foundation on which to build our calculations. Mr. H.'s long experience in the wine and grape industry, running through a period of, as he says, 44 years, gives him truly, if time is any criterion, a right to speak on the matter, and beginners can surely say: "Let us sit at the feet of these old teachers and weep, and sip from their ripe experience lessons in wisdom."

I endeavored to tell your readers what seemed to me to be the future of the wine industry, taking a general view of it from a business standpoint. Owing to the amount of temperance education and temperance opposition brought to bear on every form of the drinking habit, also the small amount of encouragement that those interested in the production of the wine grape for a livelihood have, and owing to the extremely small price paid for the fruit, the planting of the wine grape was not pushed in this county and in my opinion it was not advisable to do so. Mr. H.'s letter has not made it clear to me that what I said does not hold good, and I would like to call up a few points of his statements.

He used the argument that light, dry wines such as are produced in the northern counties, 10 to 12 per cent of alcohol, assist digestion. If he will produce the best medical authority wherein alcohol helps digestion, I would be pleased to see it.

Politically speaking, he calls attention to the defeat of the Republican party in the East, and attributes it to the leaning of that party for the last 20 years toward the prohibition side. Now I would like to hear from the Farmers' Alliance, that has sprung up so like magic—an organization that now controls some 5,000,000 votes, over 50 per cent of which in the so-called Free States formerly were members of the Republican party. Either

they left their old party on account of its leaning toward prohibition or they did not, and I believe there is not one in 10,000, if any at all, that left that old party on that account, but because that old party had become the right bower of the protected and monopolized classes and had ceased to look after the interests of the honest tillers of the soil.

He further asks, in the way of substantiating his plea in favor of the wine interest: Is it right that I and my neighbor, who use wine as it ought to be used—moderately and as one of the best gifts of God, which should never be abused or taken in excess, should be deprived of its use because our other neighbor drinks whiskey and other vile stuff to excess? It is an infringement on personal liberty—unconstitutional—and I may add, is it right because my neighbor has not got the power of self-government so as to use it moderately, but drinks to excess, starves and abuses his family, murders his child and drives his wife into the insane asylum, that the innocent taxpayer should be compelled to bear the necessary expenses, and the innocent woman should suffer and the innocent child be murdered because some men can drink moderately? Is it not an infringement on the personal liberty of the taxpayer to compel him to pay so unjust and uncalled-for an expense—one he can't possibly be fittingly interested in or had any voice in contracting, and also on the personal liberty of the wife and child who have to suffer because the personal liberty of one who cannot restrain a morbid appetite? Then again the word unconstitutional surely is an old chestnut. Has not the Supreme Court (Justice Field) decided that there is no inherent right in a citizen to sell intoxicating liquors? That being so, is there any constitutional right, and if there is a constitutional right, have not the people the right to so change the Constitution, if need be, so that it be a misdemeanor to sell and handle so dangerous a stuff?

In speaking of the prohibition law in Kansas Mr. H. says it ruined the breweries and wineries, and kept emigration from its borders. I can fully agree with him that it ruined the two first mentioned industries completely; in fact annihilated them, although it is a familiar saying with those interested in the perpetuity of the drink traffic, that *Prohibition does not prohibit in Kansas*. But as to the immigration, that surely, friend H., is "a little off" on, as there is scarcely a State in the Union that has grown as fast as Kansas and none that has added a larger per cent per capita to its savings bank deposits. As to its going against the Republicans and giving a Democratic majority, does Mr. H. not know the Farmers' Alliance have captured the State and ousted the immortal Ingalls from the U. S. Senate in spite of his famous utterance that the ten commandments had no place in politics, and that pure politics is an iridescent dream? The farmers said "go," and he went. Mr. H. says, look at the practical workings of total abstinence in our households. I could name a great many of our winemen who forbid their sons the use of wine while they were under their control. But human nature is so constituted that forbidden fruit tastes the sweetest, and the result of all this has been invariably that the boys when they were at liberty to follow their own inclinations, became the worst of drunkards, and then he cites his experience in bringing up a family, which he allowed to have free excess to wine whenever they felt like drinking it. Now I infer from this that to bring up boys temperate, it is best to let them cloy themselves when young, or adopt the free-and-easy method, and let the children help themselves to intoxicating wines just as though it was water whenever they felt like drinking it; and by so doing they will learn to be temperate. Still he says, where boys were kept away from it for a time, when they were at liberty to follow their own inclinations, they became the worst of drunkards. The omen of this doctrine is, keep an open wine barrel in your house, parents; in fact, let the heads of the family set the example, if you want your children temperate men and women. Why should we legislate against polygamy, gambling, stealing, obscene literature and pictures or any crime? Just let the youngsters have a full swing at it, then when they get old they will not want to.

Again he said: "Let light wine take the place of fiery whiskey and brandy." How shall we do it? Would we not infringe on the personal liberty of the consumers of these drinks and would not that be unconstitutional? Besides taking Mr. H.'s line of argument to legislate against these products and for the wine industry would be class legislation, just the kind of legislation that has killed the Republican party in Kansas and is now building up the Farmers' Alliance.

Some years ago the good people of this country did all they reasonably could to encourage beer-drinking as a temperance measure, believing by so doing less strong drink would be used. What has been the result? The consumption of strong alcoholic drink has increased in this country from a little over five per cent to about twelve per cent per capita in a little over one generation, and the consumers that were only a whisky barrel are now both a whisky and a beer barrel combined. Now legislate so as to increase the consumption of wine and our people may be called a triplet at once, three in one, a whisky, beer, wine barrel, and if the hoops of any rational man can stand that, then there is no fear for the safety of the country, as our people will be ironclad and shot-

proof. But they are not going to stand it, for by the help of a growing intelligence and the breaking up of old party ties the intoxicating evil will find its just resting-place amid the relics of superstition, there to be resurrected only as a curiosity, like the old crooked stick that once acted in the capacity of a plow and is now only exhibited as a curiosity to a wiser generation that will follow us in the near future.

I. C. Wood.

Palm Rest, Ontario, San Bernardino Co.

[Both sides have now been heard in this question, and we do not desire to have the discussion go further at present. We decide thus not because we underestimate the importance of the subject, but because the discussion is interminable, and it crowds out matter which our readers would rather pay their money for. The positions taken by both writers have been clearly defined and there is little chance of their moving each other a hair's breadth by volumes of writing.—EDS. PRESS.]

Vine-Planting at Fresno.

**EDITORS PRESS:**—Notwithstanding the cry of "overproduction" of rooted vines, preparation of cuttings for next year's planting is larger than ever; one man has contracts to root a million cuttings, while several others will root out half a million each.

Grapevine planting is being done to as great, or greater extent, this year than usual. Prices on Muscat rootings range from \$7 to \$10 per thousand, with Sultanias much higher. Sultanias cuttings, however, are offered at \$1 per thousand. The Thompson Seedless (propagated by J. P. Onstott of Sutter county) is gaining in favor, but owing to high prices will not be planted in large areas. C. M. Fresno

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PART IV: THE GRAPE.—Rise and Progress of the Grape Interest; Propagating and Planting Vines; Pruning and Care of the Vine; Grape Varieties in California.  
PART V: SEMI-TROPICAL FRUITS.—The Date; The Fig; The Olive; The Orange; The Lemon, Lime, etc.; Minor Semi-Tropical Fruits.  
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100 " Grangers' Soap.....	3 75	Boys' Short Pants.....	60c up
100 " White or Pink Beans.....	3 15	Men's Pants, every-day.....	75c up
100 " Cooking Raisins, fair.....	3 75	Men's Pants, better grade.....	1 25 up
100 " Good Cooking Raisins.....	4 75	Men's Underwear, winter weight.....	35c up
100 " Layer Raisins, boxed.....	7 50	Child's Underwear, gray.....	16c up
100 " Fine Sugar-cured Hams.....	12 00	Child's Underwear, white.....	25c up

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### The Smyrna Fig at Fresno.

Geo. C. Roeding, of the Fancher Creek Nursery, has given fig culture much attention, and is probably to-day as well posted as any man in California on figs. In an interview with a Fresno *Expositor* reporter the other day, Mr. Roeding said:

"We have made great efforts to get the true Smyrna fig, and to learn as much as possible about the soil in which it is grown, the climate of its native country, the method of planting, cultivation, curing and packing, and we have succeeded in our endeavors to our entire satisfaction."

The best fig of commerce is grown in the districts of Aidin in Erbeli and Danceli in Asia Minor.

The fig districts are situated about 60 miles inland, and not, as many suppose, near the coast, and the dried fruit is sent to Smyrna, on the Mediterranean, for packing and sale, and hence it is known to the commercial world as the Smyrna fig.

The soil in this section of Asia is similar to that of the plains of Fresno county—a light sandy loam—and the climate dry and hot in summer, not unlike ours, and the winters a trifle colder.

The trees in the older orchards are planted irregularly at a distance of about 30 feet apart, but the newer orchards are planted in regular form, at an average distance of 50 feet apart. The original orchards are from 50 to 75 years old, and the trees are of great size. The trees are trimmed so as to branch at from 4 1/2 to 5 feet above the ground and are never pruned unless the branches interfere with one another.

For the first two years after planting the trees are irrigated, but in a very primitive manner. The water for irrigation is procured from wells and is carried to the trees in goat-skin sacks by the natives.

The trees begin bearing in from 6 to 7 years, but do not produce a first-class fruit until they are from 12 to 15 years old. The true fig produces but one crop of fruit annually.

The orchards are plowed only lightly, but are kept free from weeds. Deep plowing is objectionable, as it destroys the small roots which spread out near the surface of the ground. Long experience has shown that heavy calcareous soils are unsuited to the fig, it thriving best in light sandy loam.

Regarding the caprification of the fig—that is, the fertilizing of the pistillate or female figs with the staminate or male figs—there has been much discussion carried on by scientists, and a wide divergence of opinion exists, but the beneficial effects of caprification must be apparent from the fact that in the districts where the finest figs are grown it is followed by all growers—in fact the true Smyrna fig will not produce fruit without it.

Relating to caprification, R. I. Van Lennep of Smyrna writes to Mr. Roeding as follows:

Trees producing the proper figs for drying give but one yearly crop, and the same may be said of the wild trees. The female fruit begins to ripen toward the latter end of July and goes on ripening, according to locality, up to the end of August. The wild tree begins to give ripe fruit in June and July, precisely when the female fruit begins to increase in size. Then the male, or wild fruit, dries and falls, and toward the month of October small fruit makes its appearance at the intersection of the leaves. The female figs begin to appear only in April or May.

Caprification is a subject on which much has been written, many researches made, and opinions are at variance. Whether that term is proper or not is not a matter to be considered; it has come down under that term from olden times in the writings of Greek and Latin, but in its objects all agree, and that is to fertilize the figs or the fruit which would not ripen nor be of any use. The question is, then, to know in what way this operation takes place, and in consequence in what way to apply it scientifically so as to obtain the best results. The question at issue appears to be no other. Nature in all her workings is mysterious. All the owners of fig trees in Aidin and elsewhere, of the monocious kind (that is, where monocious kinds are found), producing figs to be dried or to be consumed in a fresh state, always put on each tree strings of wild or fertilizing figs. On inquiring why they do it, they unanimously answer that otherwise the figs of their trees would not succeed in giving fruit, would dry and fall before full maturity. Such is the existing conviction that many people have, and when the harvest is at hand they gather the wild figs and sell them in the town and village bazaars or markets as merchandises. If the wild figs are not sufficiently abundant, their price is higher than the best quality of dried figs. When a wild tree is left to grow in an orchard of female trees, the vicinity of that tree is sufficient to fertilize 20 or 30 trees of the female kind without having recourse to the coronets or strings of figs, excepting when the weather has been unfavorable to the full ripening of the wild fruit.

My late brother, Mr. Charles Van Lennep, possessor of a very large farm, made a special study of this subject. In the beginning of his studies he was of the opinion that the work of caprification took place only by means of insects and not otherwise, but continued to put coronets of wild fruits on his fig trees. On further investigation and further observations he came

to the conclusion that the wild figs contained the pollen that fertilized the female fig, either by natural means employed by nature or helped by insects, the wild being the staminate fruit and the fig the pistillate fruit.

Dried Smyrna figs are full of small yellow seeds, as you can notice by opening one of them, if the fig is not too old and is not damaged; if taken out with care, these seeds, which are nothing else than the result of the caprification, by washing them carefully can be sown in old manure and a great number of them will sprout, producing for most part the wild tree that gives the capri figs. This has often been tried here with seeds of the fresh and dried fig, giving about the same results.

The insects that come out of the figs are very, very small, and appear to be of two or three different kinds. They resemble small flies and seem to fly about in a fig tree for three or four days and then disappear. Some are found dead, but more can be found alive in some part of the tree, where they pass the winter through.

That Mr. Roeding has succeeded in securing the genuine fig of commerce is shown by the following certificate:

I hereby certify that I have supplied to Mr. W. C. West of California, for the Fancher Creek Nursery, Fresno, California, 25,000 cuttings of the true Smyrna commercial fig from the Erbeli district, known in the market as the Smyrna Fig; and also 2000 cuttings of the wild or male fig. The said cuttings were selected from the orchards of the said Erbeli district under the personal supervision of the above-named Mr. W. C. West, who visited and examined the said fig trees in September last, taking samples of fruit from the said fig trees while they were still with fruit, which was then being collected. The said Mr. W. C. West was then visited and examined the said fig trees during the present month of November after the fruit was collected and the leaves fallen. These cuttings were taken under the supervision and in the presence of Mr. W. C. West from the same fig trees from which he took samples of fruit in September last. He also took samples of soil from the said orchards in the Erbeli district.

In witness whereof I have hereunto set my hand and seal this 30th day of November, 1886.

(SEAL.) THOS. HALL,  
"Thos. Hall," is of the true and proper handwriting of Thos. Hall of Smyrna. H. R. M. CONSULAT COURT.  
SMYRNA, the 1st day of December, 1886.

(SEAL.) GEO. DENNIS,  
H. M. CONSUL.

UNITED STATES CONSUL,  
SMYRNA, December 1, 1886.

I hereby certify that the seal at the foot of the above document is the seal of the British Consulate at Smyrna, and the signature that of George Dennis, British Consul in this city.

(SEAL.) W. C. EMMET,  
U. S. Consul.

## THE VETERINARIAN.

### Worms in Horses.

EDITORS PRESS:—I have been very much interested in the Veterinary Department, and think Dr. Buzard is real kind and good to tell so many good things to help the people cure their sick animals; but as one good turn deserves another, let us still draw him out by asking how to treat a horse with lumbricoids—those big squirmers a foot long or so.—R. E. WOOD, St. Helena.

EDITORS PRESS:—Of the history of the development of the larger round worms, *ascaris lumbricoides*, our knowledge is very incomplete, nevertheless the causes of the prevalence of these worms in particular localities and during certain seasons are not far to seek. It is clear that their final stage of growth is accomplished with great rapidity, otherwise we should not meet with lumbricoids in pigs and puppies scarcely three weeks old. Large round worms have also been found in very young colts. The ordinary lumbricoids of the horse, of the pig, and of man, so very closely resemble each other that by some they are regarded as mere varieties of one species (*ascaris megaloccephala*, *ascaris suilla*, and *ascaris lumbricoides*). Whether they are so or not is of little practical moment, for it seems quite certain that a perfect knowledge of the earlier stages of development of any one of them would furnish a clue as to what obtains in the others. It is probable, also, that the lumbricoids of the dog and cat undergo similar changes.

Davaine has kept the eggs of the common round worm alive for more than five years, and observers have watched their development in fresh water up to the stage of imperfectly developed embryos, and have kept them alive in this condition for three months.

Davaine found that the eggs of many nematodes will retain their vitality though long exposed to dryness, but their contents will not develop during this period of exposure. It would seem, in short, that the eggs of nematodes, which normally take up their residence in cats, dogs and carnivorous animals which reside in arid regions, will develop embryos *in ovo* without a trace of moisture. Davaine is of opinion that it is not necessary that nematode embryos should pass through the body of any intermediary bearer, and he believes that they are often directly transferred to the stomach of their appropriate hosts while adhering, in the condition of an impalpable dust, to the coats of their bearers, whence they are detached by the animals themselves when licking the fur.

After the escape of these larvae from the egg, their growth, strength and activity are favored if they happen to have access to fluid media containing impurities. Muddy water would appear to be eminently favorable to the development of the escaped larvae up to a certain stage of growth. Warmth is also eminently favorable to the development of all kinds of parasites,

and in the case of most nematodes it is absolutely essential to the formation and hatching of the embryos.

### Treatment.

It is often a difficult matter to destroy these parasites. Oil of turpentine stands in high repute, and doubtless is more anthelmintic than any other in the horse, but it cannot always be depended upon. I have known asconite to expel these parasites when treating the animal with that drug for some disease. When the animal with worms is emaciated or debilitated, the salts of iron is of much service.

There are many other remedies recommended by helminthologists, many of which are serviceable, while others are only calculated to do harm. I need only refer to the insane practice of administering ground glass and other mechanical irritants, in order to warn you against what is absurd. A. E. BUZARD,  
11 Seventh St. S. F. Veterinary Surgeon.

## FRUIT MARKETING.

### California Fruit in New York.

The following letter was addressed by the writers to the Phoenix (Arizona) Fruit-Growers' Association, but it will be read with interest in California, for it relates to our products in New York during the last season:

APRICOTS.—We do not believe this fruit ever will do well here, because we find much of this fruit loses a great deal of its flavor after being seven days in the cars. When shipped in ventilated cars, it of course has to be put in green and then it arrives here sometimes green, sometimes just right, but generally ripe and with rot. When taken from the car it almost melts over night, and is unsatisfactory fruit for our buyers to deal in. When it comes from refrigerators it can be put in ripen in California, and arrives here in almost precisely the same condition as when it started. This fruit comes in hot weather and when taken from the refrigerator, melts as mentioned above. To dry or evaporate, it seems to us that the apricot is the finest fruit produced in your part of the country, and it has a heavy future in this way, but not in the green state as far as the extreme East is concerned.

PEACHES.—Last season we had absolutely none grown around here, and do not believe we ever will have again such crops as we have had in the past, because from one cause or another the trees and orchards are doing badly, and growers are disgusted. Notwithstanding this, the California crop did not do well this year except in the very early part of the season when it sold from \$3 to \$3.50 per 20 lbs. box net. This fruit loses much of its flavor after being off the tree so long. However, we think it will do pretty well in Chicago and Western cities, and it will do fairly well here, but we are not enthusiastic about it, notwithstanding our people have an immense quantity coming in from California.

CHEERRIES.—This is the grand fruit for New York, and after several years experience, so to speak, we find they can come in perfect shape in refrigerator cars, in fact, we had one little lot last year that came to Chicago in a refrigerator and was then sent on here, which we sold at auction for 34 cents a pound, say \$3 40 per ten-pound box, but the fruit was perfectly beautiful. These cherries come to our markets when there is absolutely no other fruit here, and are a month ahead of any produced around here. We have no such cherries, any way, as those that come from California.

PEARS.—The Bartlett is a grand pear, and like the cherries, we produce in this part of the country no such handsome Bartletts as those which come from California. However, only the best must come here and they always should come in refrigerator cars. There is a great future before the Bartlett, because with refrigerators they can be landed here green and will stand up quite long enough, even in the hottest of weather, and our street stands of this and adjoining cities will take an immense quantity of them.

GRAPES.—The Tokay is the grand grape for this city and sells far above all other varieties. Verdelis and Muscats are not liked and never will be liked here, in fact our people do not care for a white or green colored grape. In California our Mr. Day was told, last January, that the Muscat grape was better than the Tokay, but he told the speaker that the grapes were not sent here for the agents to eat, but to make money for the shippers, and as long as the New York people wanted the Tokays and would pay high prices for them against low prices for the so-called superior Muscat or Verdel, then we believe the Tokay should come. We believe the Tokay improves on the way here, and should always come in a ventilated car, never in a refrigerator. The Emperor and Cornichon are good grapes for New York, but the other varieties like Ferrera, Malaga, Malvoise, Fontainebleau, Rose of Peru, White Malaga, Verdel and Muscat, are no good.

PLUMS.—All large sized, dark colored plume do well and will continue to do well here, but no small sized or green colored plum should be sent this way. Few of our people know the name and do not care as long as it is a big dark colored plum. It is a California plum and that is enough for them. The future of this business in this city is wonderful because in the past

Chicago has had it almost all and New York has been neglected, but we have within 100 miles of this city fully 5,000,000 people and will get a big apple that not one-tenth of them have ever had California fruit. They have seen it and perhaps tasted it, but as far as any consumption of the fruit is concerned they have not been in it. There has been received in this city this season about 650 carloads of various California fruits, and we believe they have averaged not far from \$1300 gross per car, many running from \$2000 to \$2500 gross per car. When cars were delayed, especially if they had apricots, peaches or Bartlett pears in ventilated cars, and therefore arrived here in bad shape, they sold low, from \$600 to \$800 gross. Freight from California is \$520 per car on single car passenger trains, six days and a half through, but if ten cars went to Chicago and five of them came on to New York, then the freight was \$440 per car always of 20,000 pounds of fruit. On freight train, taking about twelve days, the freight was \$300 per car and almost all the refrigerators came in this way, but it costs from \$150 to \$175 extra for the use of refrigerators by the California Fruit Transportation (C. F. T.) and the Goodell cars. We have had a heavy season and our California friends are pleased over the result, so that we have every hope next season to increase this business largely. We have the city and the people, and they have the money in their pockets, so that more money can be had sent back from this city than can be had from any other city in the United States, always provided the fruit is sent. New York buyers are peculiar and they will not have common quality of fruit, but if fancy stock comes they go wild over it and that is what we try day and night to hammer into the heads of our people in California, who seem to think that in this big market any kind of fruit would sell well.

New York.

SOGBEL & DAY.

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# TRACK AND HARM.

## California's Breeding Interests.

From the report of the State Board of Agriculture, approved at the meeting last week, we quote as follows:

From its inception this society has been the advocate of improved breeding of live-stock. Our schedule of awards each season since organization, shows advancement in the inducements to breed the best.

Our aim has been to so impress upon the producer the fact that cost of maintenance of a well-bred animal is no more than that of one of an inferior breed, and the returns certainly more satisfactory, that he will in his selections be governed by the progressive spirit that prompted the advice.

The constant reiteration of this advice has had its effect, and it is with some degree of self-satisfaction that we refer to the character and breeding of all kinds of live-stock reared in this State.

The great State of Kentucky, with all her advantages for the carrying on of stock-breeding, owes her reputation to the intelligence shown by breeders in the selection of high-class stock, whereby they had attained a standing that was hard to overcome. She was for years the recipient of our gold for stock of all kinds, but now our breeders, with one-third the experience of those of Kentucky, have been able to surpass them in prominence and production, and obtain returns from this same State for our highly developed trotting stock, which illustrates they are not slow in recognizing merit, and are still seeking blood of standard character and demand in their endeavors to excel.

The trotting breeding interest of California now forms a most important part in the resources of the State; in fact, it is one of our leading interests, and must be maintained and encouraged to the extent its importance demands.

During the season just closed the public sales in the city of New York alone of California bred yearlings and two-year-old trotters aggregated over one-half million of dollars, and the demand for this class of stock is such that our prominent breeders have arranged to hold these sales annually, not unlike the handling of our great fruit output, as by this method quick returns are obtainable, and as long as satisfactory prices are available, the supply will be forthcoming.

The most remarkable returns during the season of 1890 by an individual breeder were those obtained by Hon. L. J. Rose of Los Angeles. This sale embraced the get of Stamboul (2:11) and Alcazar (3:20 1/2).

Of the former lot were ten yearlings and ten two-year-olds, which brought in aggregate \$74,800, or at an average of \$3740 each. Of Alcazar's get were offered six yearlings and six two-year-olds, bringing for the twelve head a total of \$31,800, or an average of \$2650 for each.

Add to these amounts the sale of Stamboul for \$50,000, and Alcazar for \$29,000, and we have a grand total of \$185,600 for the lot.

Can any State with double the experience of California make this showing?

That the judgment displayed in breeding was the leading factor we admit; that our climate and feed was an able adjunct we have no doubt; that it has been accomplished we know, and the part taken by this society in the encouragement of just this very idea of pre-eminence we are proud to claim was not a detrimental element in the make-up of the success. In the encouragement of speed in the trotting horses, we have accomplished much more than was believed to be possible by those who in the past were opposed to us for our proclivities in that direction.

That it has been a benefit to values in our property no one doubts.

The history of this society in the promotion of this great interest makes plain the necessity of stimulation in more remote industries, and the success resulting in the many already accomplished emboldens us to renewed efforts toward the others.

The advancement made in this pursuit has encouraged the investment of capital not otherwise attractive to this State. Early development is one of the essential advantages we have, and the climate that assists in this is here to be found.

Our custom is and has always been in the furtherance of this breeding interest, to supply the advantages to demonstrate the capabilities of our stock. Under it we inaugurated in 1888 a contest open to all sires in training that year, and those taking part attracted the attention of the trotting-horse world to California's champions. Soon after negotiations for their purchase began, and resulted in the sale of one for \$20,000, and another for \$50,000, and a refusal of a like amount for another, and those prices were not given and offered for the machine use of racing, but solely for breeding purposes.

That this great trial of speed was of much value to the interest and State there is no question, and as it was brought about through the agency fostered by the State, we feel a pride in referring to heretofore.

The same arguments in the breeding of thoroughbreds may also be used. As the most valuable events for this character of horses are given for the two and three-year-olds, early development of both body and speed will make

them also an important article of commerce in the near future.

The location here of the most extensive breeding farm—Rancho del Paso—in the world, is sure to be an additional attraction for California in the advancement and extension of this industry, and we say to those contemplating engaging in the breeding of any and all kinds of live-stock, examine our advantages before locating elsewhere, and you will surely agree with us that there is but one place for the successful continuance of the breeding of stock, and that place is California.

## Legislation Proposed.

EDITORS PRESS:—Irrigation districts and reclamation districts, where lands have to be bonded and pay taxes amounting in some cases to several dollars per acre, have given a new standpoint from which to view the right of suffrage. We who are in an irrigation district, and have to pay the taxes, believe that only land-owners should vote on matters pertaining to taxing the land solely to improve the land. We do not question, or wish to abridge, the right of any citizen to vote on bonding or taxing our lands for roads, bridges, school-houses, or any public improvement, but when it comes to taxing our lands to improve our lands, we, the owners of the lands, ought to rule. But we shall have to have our State Constitution amended in order to do so—amend the clause that states that no property qualification to vote shall ever be required, by adding: Except in voting taxes on land for their improvement by reclamation or irrigation, in which case only owners of land shall be allowed to vote; and non-resident owners may be allowed to vote under such restrictions as the Legislature may impose.

## Amend the Wright Law.

Under the so-called "Wright Law," the people of any locality, by a two-thirds vote, can organize themselves into an irrigation district. But if the day after organizing as a district, or at any subsequent time, if every man in the district wishes it discontinued—wishes to resume the same status as before voting to organize the district—they are powerless to do so. We need an amendment to this law making it possible for a district to be abrogated when no one will be injured by so doing, and a majority desires its abrogation.

Another much-needed amendment is to deprive the directors of an irrigation district of their absolute power in certain cases. As the law now is, the directors, if so disposed, could enrich themselves and their attorneys at the expense of the district. We wish an amendment that a majority of land-owners in any division of an irrigation district may, by petition, cause any matter to be taken from the Board of Directors, and adjudicated upon by a Superior Judge of the county; and also that a like petition shall cause a Superior Judge to take testimony, pertaining to and review any act of a Board of Directors of an irrigation district, and annul or modify their acts when justice requires.

Sanders P. O., Cal.

## A THRILLING EXPERIENCE.

Remarkable Statement of Personal Danger and Providential Escape.

The following story—which is attracting wide attention from the press—is so remarkable that we cannot excuse ourselves if we do not lay it before our readers, entire.

To the Editor Rochester (N. Y.) Democrat—SIR: On the first day of June, 1881, I lay at my residence in this city surrounded by my friends and waiting for death. Heaven only knows the agony I then endured, for words can never describe it. And yet, a few years previous any one had told me that I was to be brought so low, and by so terrible a disease, I should have scoffed at the idea. I had always been uncommonly strong and healthy, and weighed over 200 pounds and hardly knew in my own experience, what pain or sickness were. Very many people who will read this statement realize at times that they are unusually tired and cannot account for it. They feel dull pains in various parts of the body and do not understand why. Or they are exceedingly hungry one day and entirely without appetite the next. This was just the way I felt when the relentless malady which had fastened itself upon me first began. Still I thought nothing of it; that probably I had taken a cold which would soon pass away. Shortly after this I noticed a heavy, and at times neuralgic, pain in one side of my head, but as it would come one day and be gone the next, I paid little attention to it. Then my stomach would get out of order and my food often failed to digest, causing at times great inconvenience. Yet, even as a physician, I did not think that these things meant anything serious. I fancied I was suffering from malaria and doctored myself accordingly. But I got no better. I next noticed a peculiar color and odor about the fluids I was passing, also that there were large quantities one day and very little the next, and that a persistent froth and scum appeared on the surface, and a sediment settled. And yet I did not realize my danger, for, indeed, seeing these symptoms continually, I finally became accustomed to them, and my suspicion was wholly disarmed by the fact that I had no pain in the affected organs or in their vicinity. Why I should have been so blind I cannot understand.

I consulted the best medical skill in the land. I visited all the famed mineral springs in America and traveled from Maine to California. Still I grew worse. No two physicians agreed as to my malady. One said I was troubled with spinal irritation, another, dyspepsia; another, heart disease; another, general debility; another, congestion of the base of

the brain, and so on through a long list of common diseases, the symptoms of many of which I really had. In this way several years passed, during which time I was steadily growing worse. My condition had really become pitiable. The slight symptoms I had at first experienced were developed into terrible and constant disorders. My weight had been reduced from 207 to 130 pounds. My life was a burden to myself and friends. I could retain no food on my stomach, and lived wholly by injections. I was a living mass of pain. My pulse was uncontrollable. In my agony I frequently fell to the floor and clutched the carpet, and prayed for death. Morphine had little or no effect in deadening the pain. For six days and nights I had the death-premonitory hiccoughs constantly. My water was filled with tube-casts and albumen. I was struggling with Bright's Disease of the kidneys in its last stages!

While suffering thus I received a call from my pastor, the Rev. Dr. Foote, at that time rector of St. Paul's Episcopal Church, of this city. I felt that it was our last interview, but in the course of conversation Dr. Foote detailed to me the many remarkable cures of cases like my own which had come under his observation. As a practicing physician and a graduate of the schools, I derided the idea of any medicine outside the regular channels being in the least beneficial. So solicitous, however, was Dr. Foote, that I finally promised I would waive my prejudice. I began its use on the first day of June 1881, and took it according to directions. At first it sickened me; but this I thought was a good sign for one in my debilitated condition. I continued to take it; the sickening sensation departed and I was finally able to retain food upon my stomach. In a few days I noticed a decided change for the better, as also did my wife and friends. My hiccoughs ceased and I experienced less pain than formerly. I was so rejoiced at this improved condition that, upon what I had believed but a few days before was my dying bed, I vowed, in the presence of my family and friends, should I recover, I would both publicly and privately make known this remedy for the good of humanity, wherever and whenever I had an opportunity, and this letter is in fulfillment of that vow. My improvement was constant from that time, and in less than three months I had gained 26 pounds in flesh, became entirely free from pain, and I believe I owe my life and present condition wholly to Warner's Safe Cure, the remedy which I used.

Since my recovery, I have thoroughly reinvestigated the subject of kidney difficulties and Bright's disease, and the truths developed are astounding. I therefore state, deliberately, and as a physician, that I believe more than one-half the deaths which occur in America are caused by Bright's disease of the kidneys. This may sound like a rash statement, but I am prepared to fully verify it. Bright's disease has no distinctive features of its own (indeed, it often develops without any pain whatever in the kidneys or their vicinity), but has the symptoms of nearly every other common complaint. Hundreds of people die daily whose burials are authorized by a physician's certificate as occurring from "heart disease," "apoplexy," "paralysis," "spinal complaint," "rheumatism," "pneumonia" and other common complaints, when in reality it is from Bright's disease of the kidneys. Few physicians, and fewer people, realize the extent of this disease or its dangerous and insidious nature. It steals into the system like a thief, manifests its presence, if at all, by the commonest symptoms and fastens itself in the constitution before the victim is aware of it. It is nearly as hereditary as consumption, quite as common and fully as fatal. Entire families, inheriting it from their ancestors, have died, and yet none of the number knew or realized the mysterious power which was removing them. Instead of common symptoms, it often shows none whatever, but brings death suddenly, from convulsions, apoplexy or heart disease. As one who has suffered, and knows by bitter experience what he says, I implore every one who reads these words not to neglect the slightest symptoms of kidney difficulty. No one can afford to hazard such chances.

I make the foregoing statements based upon facts which I can substantiate to the letter. The welfare of those who may possibly be sufferers such as I was, is an ample inducement for me to take the step I have, and if I can successfully warn others from the dangerous path in which I once walked, I am willing to endure all professional and personal consequences.

J. B. HENION, M. D.  
Rochester, N. Y., Dec. 30th.

## Petaluma Incubator.

A RURAL representative made a visit one day last week to the incubator manufactory in the town of Petaluma. Mr. L. C. Byce, the manager, had a full force of men at work, and was just in receipt of a letter from C. Lillingston, Carpinteria, wishing him to send immediately a \$50 machine for hatching ostrich eggs. Mr. Lillingston has one in use now, and this one sent for was to meet the demand of his enlarged business in this line. Mr. E. Cawston, of Norwalk, wrote that he had hatched 15 chicks from 15 eggs with one of the Petaluma Incubators. Mrs. J. W. Whitney, of Conley Station, Sacramento, has two machines, one of 70 egg capacity and the other of 120 egg capacity, which she has used for six years. There is no doubt that by the use of the Petaluma Incubator, many henneries and small farms are made profitable. Mr. Byce has lately made improvements, and in this connection has a full line of all the machinery, egg-food, and medicines used in poultry yards. It is something of a curiosity to go through his large factory to see the various devices and accoutrements used in poultry farms. Any one interested would do well to send for his new catalogue, which contains a full description of how to make money by raising chickens.

## Complimentary Samples.

Persons receiving this paper marked are requested to examine its contents, terms of subscription, and give it their own patronage, and as far as practicable aid in circulating the journal, and making its value more widely known to others, and extending its influence in the cause it faithfully serves. Subscription, paid in advance, 5 mos. \$1; 10 mos. \$2; 15 mos. \$3. Extra copies mailed for 10 cents, if ordered soon enough. If already a subscriber, please show the paper to others,

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July 1, 1889. A. MONTPELLIER, Manager.

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Needs the brightest and best of music. The 2,000,000 readers of this ad. are all invited to provide themselves with music or music books from our complete and varied stock.

Send freely for lists and information.

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SONGS OF IRELAND. \$1.00. Choice, revised collection of very favorite songs. 66 songs. 144 pages.

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## THE ANALYSIS OF THIS GUANO IS AS FOLLOWS

Insoluble Phosphoric Acid.....	24.61%
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2.30% Ammonia, equivalent to 1.89% Nitrogen.  
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## GOOD HEALTH.

### The San Francisco Cancer Remedy.

It is a Cure and not a Mere Extirpation.

The world-wide excitement attending the recent discovery of the Berlin consumption cure seems to have awakened a new and most active interest in the claim which for three or four years has been made that a well-known practitioner in this city, Dr. C. A. Cook, has discovered a cure for cancer. It has long been fully believed by all who have made any effort to examine into the facts connected with this alleged cure that it is a reality, that it is a genuine cure and not a mere extirpation—a rooting or cutting out.

Physicians of all countries, and numerous uneducated "specialists," as they are pleased to call themselves, have from time immemorial cut out cancers or drawn them out by means of "plasters," sometimes, indeed, in very mild or doubtful cases of this malady such practitioners may have dissipated or "scattered" cancerous tumors by outward applications without the aid of either knife or plaster. Cases of a similar nature are on record in medical books, where what were supposed to be cancers have gradually disappeared from the system without any special treatment. Such "cures," however, have been attributed to the action of nature operating on unusually healthy systems, when the patient has followed a careful system of diet, etc. Nature often works wonders in disintegrating and driving from the system foreign bodies, or broken-down tissues and even fragments of bone—and thus, for ages, cancers have sometimes thought to have been "cured." But until our attention was called to the practice of this San Francisco specialist, the writer has never heard of anything which could be considered a "specific" for cancer. So much interest is just now being taken in regard to this matter, that we feel it is due to the public to give some information as to

#### The Character and Method of the New Treatment.

This new treatment has no need for the knife, and only in a few exceptional and mild cases is anything like a "plaster" used. Even when the latter is used it is not compounded with the severe caustics usually employed, but nevertheless does its work in a manner equally effective and with very little torture to the patient. But, in all cases, what are denominated "specifics" are employed, which act gently and without giving pain. In fact, the action of the specific assuages the pains which always accompany the growing tumor immediately upon their application. They moreover destroy the offensive odors which are nearly always attendant upon advanced cases. No minerals of any kind are employed in any part of the curative process. Every particle of the several unguents and other compounds is either vegetable or animal.

This "cure" was not an accidental discovery, but consists of an elaborate treatment which has been evolved only after long years of careful study and experiment. Starting some 20 years ago from a mere germ, which was obtained for coin, the remedy has been worked until it has now assumed a well perfected specific for this most dreaded of all maladies with which the human race is afflicted.

#### The Remedy Is Simple as Well as Efficient.

Different from the idea of Dr. Koch, whose consumption remedy proceeds with violent and often dangerous action from the extremes or periphery of the body—the skin—through hypodermic injection under the skin, the constitutional portion of this cancer treatment is simply an alternative of pleasant and quite attractive taste introduced into the stomach—the fountain-head of nutrition, and thence, through physical movements, modifies and controls all the vital machinery of the system—absorption and nutrition—and in a way so vigorous and beneficent that morbid actions are forestalled and physiological ones so energetically and triumphantly substituted that, with the aid of the outward applications and the active endosmotic action set up by use of the battery, every cancerous germ is not only disintegrated and dissipated, but is fully and effectually driven from the system. The evidence that this is so is found in the important fact that not one single instance of a return of any cancerous trouble has been reported or discovered, even after many years of waiting. Scores of patients now in this city, many of whom have been operated upon by our best surgeons, and who have been pronounced again afflicted and all of whom have been pronounced undoubtedly suffering from the malady, have been treated, pronounced cured, and have never in any single case been subjected to a return. This may be regarded as evidence, beyond all question, of the reality of the cure! Evidence of this character has never yet failed to satisfy every person who has taken the trouble to look into it. Many physicians of standing are among those who have taken the trouble to investigate, and all have expressed themselves as perfectly satisfied that the facts are precisely as have been stated, but only two or three physicians have had the courage to publicly stand up to their convictions because of the fearful persecution which they have met and are sure to meet with from the ruling majority of the San Francisco faculty. Why this is so we leave for those

medical gentlemen most interested in ignoring and suppressing an important truth to say. There are at this time 18 patients now under treatment for cancer, all of whom are doing well and will soon be discharged as cured.

This Ascertained Remedy is Entitled to Respectful Consideration and Investigation.

By the medical faculty, because it is a reasonable and apparent truth of importance to medical science and to humanity everywhere. The practitioner has repeatedly offered to treat any patients in a reasonable stage of affliction, who may be submitted by any recognized body of local physicians. It is well known that the treatment is exceedingly mild and absolutely without danger. After years of waiting for our own health conservators to come forward and comply with so reasonable a request, the appeal has now been made to a city 3000 miles away.

#### Compared With Koch's Remedy.

That this remedy will be found preferable to that of Koch, which it is claimed has already been shown to be of some value in mild cases of cancer (lupus) as well as for consumption, is fully shown from the fact of its effective action in quite extreme cases, and with all classes of cancer—lupus, scirrhus, and especially with that peculiarly dangerous character of this malady which attacks female internal organs. In the latter case it is, if anything, more effective than in any other form of the malady. Such cases, when treated by this remedy, if taken in anything like the early stage, or about the time when a surgeon would suggest the use of the knife as the "only remedy," yield most readily and kindly, without any danger whatever of hemorrhage. Indeed, all natural hemorrhage in such cases is at once stopped, while the cancerous growth comes away gradually and without any suffering by the patient. In nearly all treatment, except in extreme cases, the patient is not confined even to the house—not even for a day. We know of what we are writing, from personal observation, in a great number of cases. The writer has never paid any attention to any case which has not been authoritatively pronounced cancer by some one or more of the most prominent physicians of the city.

The mode of treatment differs in toto from Koch's remedy and is all the more worthy of attention because it is analogous to the action of the usual remedies employed and in direct line with the practice which physicians all over the world have employed for thousands of years in the general treatment of diseases.

It should be stated that the preliminary act in treating either tumor or cancer by this method is by accelerating the passage of certain unguents through the skin by hand-rubbing and by electrical action. Electricity alone appears to be of but little account; but as an aid to the endosmotic action induced by simple rubbing, it is found of much service, and except in extreme cases, induces a more or less rapid dissolution of tumor or cancer, while the constitutional action of the remedies taken into the stomach causes an especially rapid excretion from the body of the diseased or broken-down tissue.

It is often the case that the physician is unable to say whether an apparent tumor is benign or malignant. With this remedy it makes no difference whether it is one or the other. The external applications and alternative remedies may be safely and effectively applied in either case.

#### Just How Remedies Cure

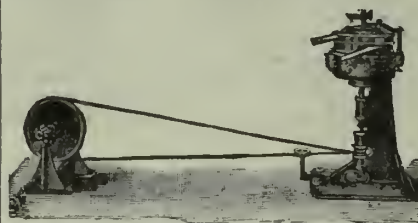
Will perhaps remain forever in the regions of the unknowable. Mankind may differ or even quarrel as bitterly as they are able as to opinions, but experience is the grand "hose" at last and subjugated by facts, opposition must rest in assent and silence. No crime against progress is so great as prejudiced, angry and persistent war against calm and analytical investigation. The latter is that which has been sought by the writer and his friends during the four-years' war which he has been compelled to wage against the prejudiced and persistent opposition of the medical faculty of this city, against the efforts at progress which a few humble but earnest citizens have been endeavoring to make.

Before closing this article, we wish to make a statement in refutation of charges which we understand have been urged to break the force of the articles which have heretofore appeared in these columns in reference to the matter of this cure. It has been charged that they were mere advertisements and paid for as such. We desire to say once for all that neither the writer nor any one connected with either of our publications has ever received, either directly or indirectly, one dollar or in any way the value of a dollar in payment for anything which has been written or printed, during the last four years or any other time, in regard to the matter under discussion. Whatever we have done or written has been purely in the interest of humanity and for the furtherance of medical science.

People who use arsenical preparations for their complexion, do so at the risk of their lives. Ayer's Sarsaparilla is guaranteed free from any injurious drug, and is, therefore, the safest as well as the most powerful blood medicine in the world. It makes the skin clear.

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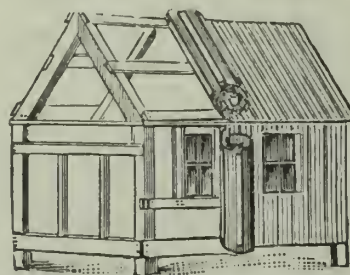
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MESSES. H. H. MOORE & SONS, Stockton, Cal.—GENTLEMEN: In answer to your inquiry, would state that I used your H. H. H. Liniment on my Holland prize-winning cow, "Lena Menlo," for a wrenched shoulder, and it relieved her very much. She calved the next day, and while still suffering from the sprain gave the largest authenticated quantity of milk ever given on this coast (104 gallons per day), showing conclusively the great relief received from your remedy. I consider it a necessity in my stables, and when away from home feel perfectly safe, as inexperienced men can do no harm with it, as they can with the more powerful hitters. Respectfully yours, FRANK H. BURKE, Breeder of Registered Holsteins and Berkshires. Menlo Park, Cal., January 23d, 1890.

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Patent

## Squirrel Exterminator.

This is an apparatus for burning straw and sulphur and also forces the fumes down their holes which never fails to kill. I will give \$100 in case the exterminator does not kill (if properly applied) every ground squirrel that its deadly fumes comes in contact with. Thousands are in use. Price \$3.00. Send for circulars to

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Very few people have any idea of the almost numberless products of common coal, and least of all that essence of fruits, drugs, and even wines are found in the ordinary, every-day fuel of the time. Yet such is the fact; coal has many uses beyond the mere giving of heat and light. These last have only been discovered of late years, although pit coal has been known hundreds of years. Even illuminating gas was unknown a century ago, petroleum has been in use scarcely 40 years, and it is hardly more than 50 since some one discovered that stone coal was inflammable. Nearly all other products derived from soft coal have been discovered and applied in the interest of science or of fraud within the last 25 years. Some of them seem almost magical.

Besides heat and light, there are obtained from ordinary coal the means of producing over 400 shades of colors, among the chief of which are saffron, violet-blue and indigo. There are also obtained a great variety of perfumes—cinnamon, bitter almonds, queen of the meadows, clover, wintergreen, anise, camphor, thymol (a new French odor), vaniline and heliotropine.

Among the explosive agents whose discovery has been caused by the war spirit of the last few years in Europe are two, called dinitrobenzene or hellite and pitrate.

To medicine, coal has given hypnone, salicylic acid, naphthol, phenol antipyrine—the last a remedy for "La Grippe." Benzine and naphthalene are powerful insecticides.

There have been found in it ammoniacal salts useful as fertilizers, tannin, saccharin (a substitute for sugar), the flavor of orrant, raspberry and pepper, pyrogallol acid and hydroquinone, used in photography, and various substances familiar or unfamiliar, such as tarsin, asphaltum, lubricating oils, varnish, and the bitter taste of beer. By means of some of these we can have wine without the juice of the grape, beer without malt, preserves without either fruit or sugar, perfumes without flowers, and coloring matter without the vegetable or animal substances from which they have hitherto been chiefly derived. So it will be seen that coal is an exceedingly versatile commodity.—*Ex.*

**STRIKES.**—Those who believe strikes are of modern origin are likely to be disabused by a recent article in the *Pall Mall Gazette*. According to accounts, strikes were extensively indulged in in Egypt 3000 years ago. It appears that workmen in those times were paid at the beginning of the month, and their "blue Monday" lasted well into the month. Then they had a habit of striking to obtain the means of living. In the building of temples, King Pharaoh himself was sometimes appealed to, the workmen refusing to return to work until he had given his decision. These men appear to have been quite as obstinate as men of modern times, and generally made a "compromise," much as is done in these days. They appear to have had the habit of throwing down their tools on slight provocation, and assembling together to talk over their grievances. Sometimes efforts were made to prevent them leaving the buildings upon which they were at work, but these efforts do not appear to have been successful.

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Ayer's Cherry Pectoral.

I did so, and soon began to improve; my lungs healed, the cough ceased, and I became stouter and healthier than I have ever been before. I would suggest that the name of Ayer's Cherry Pectoral be changed to Elixir of Life, for it certainly saved my life."  
—F. J. O'Brien, Salto, Buenos Ayres.

"A few years ago I took a very bad cold, which settled on my lungs. I had night sweats, a racking cough, and great soreness. My doctor's medicine did me no good. I tried many remedies, but received no benefit; everybody despaired of my recovery. I was advised to use Ayer's Cherry Pectoral, and, as a last resort, did so. From the first dose I obtained relief, and, after using two bottles of it, was completely restored to health."  
—F. Adams, New Gretna, N. J.

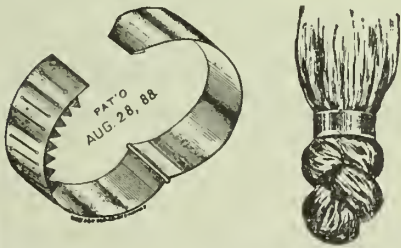
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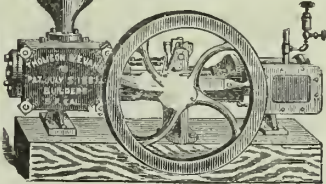
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AT THE

Riverside Nursery and Fruit Farm, Lodi, San Joaquin Co.

JAMES A. ANDERSON, Proprietor

A choice collection of Fruit, Shade and Ornamental Trees and Vines, etc., all home grown, healthy and vigorous, consisting of French, Silver and Tragedy Prunes, Bartlett Pears, Hatch's Almonds, in four varieties, choicest varieties of Peaches, Apricots, Cherries, Flgs, Apples, Plums, Grape Vines, etc. Orange and Lemon Trees, home grown. Also, Texas Umbrella, Cork Oak, Locusts, Poplar and Walnuts in variety. Prices on application. Address JAS. A. ANDERSON, Lodi, San Joaquin Co., Cal.

GUM TREES

\$8.00 PER 1000.

Or Red Gums at \$14.00 per 1000, all transplanted, healthy, hardy stock. Will send any size required, from 6 to 10 up to 12 to 18 inches high, at above prices. Any size of Monterey Cypress at low rates. Send stamps for sample boxes. The best trees, for the least money, in the State. GEO. R. BAILEY, Park Nursery, Berkeley, Cal.

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HAS FOR SALE A FINE LOT OF OLIVES,

Grown in the open ground, namely: Manzanillo or Queen's Olive, Nevadillo Blanco, Picholine, and a fine lot of Chamrope Excelsior, which he offers at very low rates.

20,000 Olive Trees

FOR SALE.

MISSION, MANZANILLO, NEVADILLO & PICHOLINE. Write for prices.

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Also Trees, Plants, Shrubs, Etc.

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(Formerly Japanese Tree Importing Co.)

MAKE A SPECIALTY OF THE HARDY, SEEDLESS Oonshu Orange Trees so highly recommended by all the leading horticultural papers. N. B.—Our Manager, Mr. H. E. Amore, who has lived 28 years in China and Japan, is now traveling there in search of new fruits. Address him at Yokohama, Japan. All kinds of Japanese and Domestic Fruit Trees. Order at once for winter and spring delivery.

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From Canada ought to be extra early, and as such it is sent out. The reports of the experimental stations speak highly of it, and numbers testify to its earliness, productiveness, large size, roundness, rich color and freedom from rot. Per package, 15 cts.; five for 80 cts. You will find it only in my seed catalogue, which will be sent FREE to anybody.

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Palms, Camellias, Magnolias, Cedars, Araucarias, Bamboos, Azaleas, Yews, Pines, Cypress, Holly, and a large and complete assortment of Fruit, Ornamental Trees and Flowering Shrubbery. 50,000 Monterey Cypress and Gums, transplanted in boxes. ROSES OUR SPECIALTY. 600 Varieties kept in stock. Send for Catalogue and Price List.

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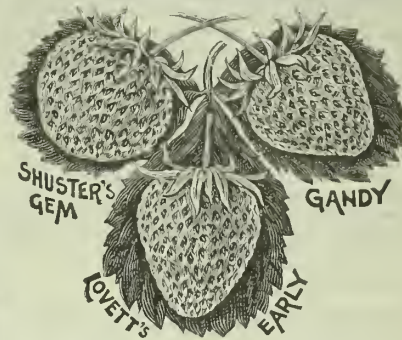
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Seeds, Plants, Etc., Continued on Pages 154-155.

PLANT TREES IN WINTER

Where the climate will permit. We have in our storage houses a complete collection of Fruit and Ornamental TREES, SHRUBS, GRAPE VINES, SMALL FRUITS, ROSES, &c., and are prepared to fill and ship orders any time during the winter. Illustrated and descriptive priced Catalogue FREE. ELLWANGER & BARRY, MOUNT HOPE NURSERIES, ROCHESTER, N.Y. Established over 50 Years. (Mention this paper.)

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All are fully illustrated and described in Lovett's Guide to Horticulture. Also all good old and choice new varieties of Small and Orchard Fruit, Nut and Ornamental Trees and Plants, etc. It is a book of over 80 pages, finely printed and copiously illustrated. It states the defects and merits, gives prices and tells how to purchase, plant, prune and cultivate. Mailed free; with colored plates 10c.

Trees and Plants by Mail a Specialty. J. T. Lovett Co., Little Silver, N. J.

TO PLANTERS FRENCH PRUNES.

I STILL HAVE IN STOCK A FEW THOUSAND OF French Prunes on Myrobalan Seedling Koots, clean and healthy, that I am offering at a modest price. Also Pears, Apples, Cherries, Peaches and Apricots. All first class. Correspondence solicited. Address D. B. DERBY, Vacaville, Cal.



Six days earlier than any variety tested at the Agricultural Ex. Grounds at Geneva, N. Y. Color greenish white; pulp tender, sweet and delicious. The only grape that ranks first both in earliness and quality. Each vine sealed with our registered trademark label. Send for circulars giving further information. Agents wanted Address STEPHEN HOYT'S SONS, New Canaan, Ct.

Mandarin Oranges.

We sold in this market over 80,000 boxes a week, seedless, Japanese Mandarins at from 75 cents to \$1 per box, boxes being one-third of the regular size orange box. We offer 5000 Mandarin trees at \$20 per 100 in lots to suit. We have also a large variety of other fruit trees and garden plants, imported from Japan, at low figures. Apply at DOMOTO BROS. CO., Japanese Nursery, 653 Third Street, Oakland.

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250 SACKS PEACH PITS, 50 SACKS APRICOT PITS.

Address FANCHER CREEK NURSERY, FRESNO, CAL.

FRUIT TREES FOR SALE.

TRAGEDY PRUNES, YEARLINGS; EARLY CRAW-ford Peaches, yearlings; French Prunes, June buds. Call or inquire at 910 Fifth Street, SACRAMENTO, CAL. INGLESIDE NURSERY COMPANY.

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White Adriatic Trees and Outlings, Etc., Malaga and Muscat Roots. M. DENICKE, Fresno, Cal.

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OLIVES, VINES, PALMS & ROSES.

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A CHOICE LOT OF TWO AND THREE-YEAR-OLD Picholine Olive Trees in open ground. Low prices. MRS. C. W. CRANE, 1117 Nineteenth St., Oakland, Alameda Co., Cal., or O. J. BACKUS, 614 Battery St., S. F.

HERE'S YOUR PRUNES! — A FEW thousands clean healthy stock of the following varieties still to offer: French, Silver and Tragedy Prune, and Clyman Plum, or Myrobalan seedling roots, Clyman, Tragedy and Royal Native on Peach, and Bartlett Pears. Address, at once, McKEVITT & WOOD, Vacaville.

ORANGE CULTURE

A practical treatise by T. A. GARY giving the results of long experience in Southern California. 100 pages, cloth bound. Sent post-paid at reduced price of 75 cts. per copy by NEWBY & CO., Publishers S. F.



### Notices of Recent Patents.

Among the patents recently obtained through Dewey & Co.'s SCIENTIFIC PRESS U. S. and Foreign Patent Agency, the following are worthy of special mention:

**CAN-LABELING MACHINE.**—Henry Albert, Crescent City, assignor of one-third to Thos. R. Hayes of Pasadena, Cal. No. 445,418. Dated Jan. 27, 1891. This machine has a runway for the cans. A reciprocating can-puller and paste car operate in this runway. The can-puller in its movement toward the cans rises to a plane above them, and then drops down upon and engages the foremost can. This can is relieved by a suitable controlling device, and the can-puller rolls it along in the runway. In its course it passes over and picks up the topmost label of the pile, which said pile is confined in a box, and the top label is supplied with paste by the paste-roller which passes over it. The labeled can is discharged at the end of the stroke, and the can-puller and paste-roller repeat the operation. Suitable locks hold the paste pile, and are operated by the passing can-puller frame, to relieve only the topmost label while holding the remainder of the pile. The label pile is kept constantly fed up to the level of the runway.

**TRACK-HARNESS.**—John E. Foster, Ferndale, Humboldt Co., Cal. No. 445,428. Dated Jan. 27, 1891. This is a harness especially adapted for use on the track with a light sulky. The object is to provide a track-harness without the use of breeching, breast-strap or traces, at the same time providing for a perfect hold-back, and a strong and tight connection with the shafts of the vehicle which will give the horse perfect freedom.

**SEPARATOR.**—Austin Cook and Wm. L. Harvey, S. F., assignor of one-third to T. J. Parsons, No. 445,133. Dated Jan. 20, 1891. The invention relates to the general class of harvesting machines, and is especially adapted and intended for the separation of wild oats from cultivated oats or any other grain or material.

**TRAVELING HARVESTER.**—Geo. W. Haines, Stockton, No. 444,936. Dated Jan. 20, 1891. The patent covers a number of details of construction in traveling harvesters which improve and simplify the machines.

**FUEL-SAVING DEVICE.**—Miles B. Dodge, S. F., No. 444,976. Dated Jan. 20, 1891. This is an improved apparatus to be used in connection with steam engines and boiler furnaces for the purpose of economizing the fuel used under the boiler. The object of the invention is to introduce air into the furnace for the purpose of combustion at a high temperature and to utilize the exhaust steam of the engine and that waste heat from the boiler furnace successfully for the purpose of raising the temperature of the air, at the same time employing the air-blast which is thus being heated as a means for condensing the steam which exhausts from the engine.

**BALING PRESS.**—George Beamon Allen, San Leandro, Cal. No. 443,172. Dated Dec. 23, 1890. In this press there are two followers operating in separate haling chambers, one at each end. The followers are operated by a novel series of intermeshing gears, actuated by the power lever and connected with the followers by links. These connections force the followers out and draw them back alternately. The power is even and steady, avoiding friction in the baling chambers.

**STRAW-DUMP ATTACHMENT FOR COMBINED HARVESTERS.**—Alexander McDonald, Franklin, Cal. No. 443,648. Dated Dec. 30, 1890. This invention belongs to that class of devices to be attached to the tail end of harvesters to catch the straw. It consists of a wheeled frame having a dump body, and carriers to receive and deliver the straw to said body. It can be readily connected with and disconnected from the traveling harvester.

**WIND ENGINE.**—George S. Eastman, S. F., Cal. No. 443,641. Dated Dec. 30, 1890. This engine consists of traveling chains, carrying adjustable sails, whereby they are moved. The chains engage sprocket-wheels and these turn a shaft from which the power is taken. The whole is mounted on a turntable, whereby it can move into and out of the wind. The machine is intended for heavy work and is capable of developing great power.

**SPREADER FOR GAITING HORSES.**—James R. Phelps, Sacramento, No. 444,570. Dated Jan. 13, 1891. This invention relates to a device which is called a "spreader" for the purpose of giving horses a proper gait and causing them to spread the hind feet when traveling so as not to interfere or overreach. This is an improvement on a former patent by the same inventor. Continuous elastic arms are pivoted or swiveled so as to turn in a suitable support upon the back of the animal. These arms are bent in a curve and the lower ends have attachments by which straps may be connected with them. These straps or continuations of them pass around the hind legs of the animal, and the constant elastic pressure of the arms pulling upon these straps tends to draw the hind legs apart, which prevents "interference" while traveling.

**SEEDING-MACHINE.**—Daniel M. Baldwin, Florence, Los Angeles Co., No. 444,573. Dated Jan. 13, 1891. This invention relates to the class of seeding-machines; and the object of the invention is to provide a simple and accurately-operating device for attachment to any form of seeding-machine. By properly timing the rotation of any of the series of drop-plates, the dropping of the seed can be made to take place at any suitable intervals.

**\$500,000**

TO LOAN IN ANY AMOUNT AT THE VERY LOWEST market rate of interest on approved security in Farming Lands. A. SCHULLER, Room 8, 420 California St., San Francisco.

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TO LOAN ON MORTGAGE ON RANCHES AND CITY real estate below market rates. HOWE & KIMBALL, 508 California St., S. F.

DEWEY & CO., PATENT AGENTS, 220 Market St., San Francisco. Elevator, 12 Front St.

### FOR SALE!

**PINOLITO OLIVE RANCH!!!**

### FORTY-SIX ACRES OF HILL LAND

In the Town of Auburn, Placer Co.

Red soil, superimposed upon upturned, friable, decomposing slate, yielding iron and alumina, thus furnishing a soil which, as Prof. Hilgard said after his analysis, will retain moisture, will not require irrigation, and will not allow the vegetable mold to leech away; thus suited to the growth of fruit trees, especially the olive, as has been demonstrated both by the remarkable growth of the tree and the yield and the quality of oil.

It is situated only 15 minutes walk from Auburn Station—the C. P. R. passes along one side—and is a less distance from the Court House. Thirty acres improved and planted to olives, set at long distances for permanent growth, and other fruits planted between the rows for temporary profits, mostly peaches of three best varieties, ripening in succession: prunes, mostly Petite; plums of several varieties, as Kelsey, Japan, Shropshire Damsone, etc.; figs of several best varieties; a few apples, nectarines, blackberries, etc. Two acres of table and raisin grapes, never irrigated, the vines remarkably vigorous and in full bearing. The trees, especially the 1500 olive, have all been planted with regard to permanency. About one-half of them have an orchard growth of seven years; fruited last year 300 pounds, this year nearly one ton. They are mostly Mission and Picholine, with a few trees of other choice varieties. Two crops of the olives have been pressed. The yield has been, for the first press, 14 per cent of very clear delicious table oil, and four per cent from the second press—the Picholine yielding this, of a peculiarly clear, nutty oil.

There is on the ranch a few acres of grain sown for hay; two acres of well-set alfalfa, below the Auburn ditch, which crosses one corner of the property; also a small house of four rooms and a kitchen; a well of good water; a small barn; a strong, permanent spring of soft, cold water, which wells up through the slate; a two-inch iron pipe connects the spring with an iron-bound 20,000-gallon tank, situated on a beautiful pine clad hill, 40 feet above the spring, a point which overlooks the town and gives very charming distant views, and is one of the most lovely sites for a residence to be found. The water is pumped to the tank by a duplex pump; the power, a four-horse steam engine, which furnishes power sufficient to pump, saw wood, run an olive crusher and do all needed shop work.

The land is all suited to fruit, excepting along a rocky ridge, which furnishes three very desirable residence sites, and the olive, set promiscuously, thrives finely among the rocks. The property can be conveniently divided along a sag which separates two of the high knobs, and water from the spring can be pumped to each of them.

This desirable property is now offered for sale for less than the improvements cost. The land is fenced, the title good and unencumbered. It is connected by a roadway, which is one of the improvements made, with one of the principal streets of Auburn.

The sale will convey the entire plant, furniture in the house, all utensils, etc. If sold before April 1st the sale will include the coming crop. If later, the crop will be reserved, unless otherwise by special agreement. If desired, one-half the purchase money can remain five years, secured by mortgage at eight per cent. For price and any further information desired, address

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**PROTECT YOUR TREES FROM SUNBURN, BORERS, RABBITS, ETC.,**

By Using the

**Pacific Tree Protector.**

Waterproof, Adjustable & Convenient.

Saves Time, Trouble & Expense.

No. 1 Tarred Felt, Vermin and Water-proof, good for 3 yrs, 7x16, \$2.00 100.

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**J.I.C. DRIVING BIT**

The only bit made that can be used on a gentle horse or the most vicious horse with equal and entire success.

20,000 sold in 1889.

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**THEY ARE KING.**

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Is the GENUINE Compound of the MEXICAN PHOSPHATE & SULPHUR COMPANY prepared from GUANO and rendered soluble by the application of acids.

This manure is an ENRICHER of the soil and not, like others, a STIMULANT only; It will do for the land what no other can in rendering it PRODUCTIVE without IMPOVERISHMENT.

Its analysis is reliable; its work is immediate and effective, and for results we point with confidence to the ORCHARDS of RIVERSIDE, where it has been liberally used for the past three years.

It can be prepared to suit any land, with or without potash, as occasion may require. It is rich in PHOSPHORIC ACID, and can be made as rich in NITROGEN as the most deficient soil may exact.

## WE GUARANTEE ALL WE CLAIM FOR IT,

Viz.: TO BE THE MOST COMPLETE FERTILIZER ON THIS COAST.

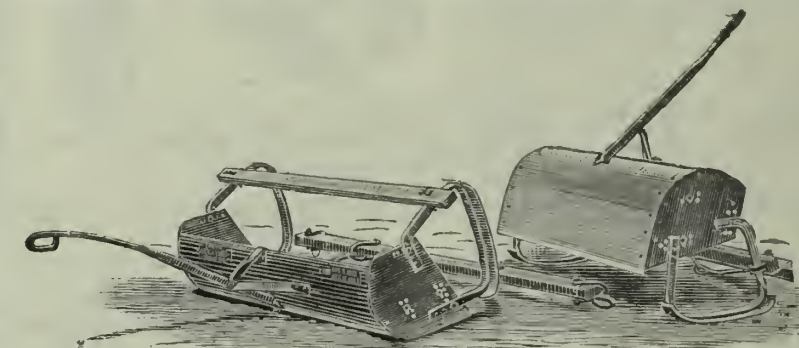
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N. B.—By courtesy of the Southern Pacific Company we have low rates on this Fertilizer to all parts of the State.



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MR. JAS. PORTEOUS, Fresno, Cal.—DEAR SIR: In answer to yours of 6th inst., will say that I have found your new style four-horse Scraper the best all-round Scraper I have yet tried. Respectfully yours, J. W. SCHMITZ, Supt. Miller & Lux.

SEND FOR CATALOGUE AND PRICE LIST.

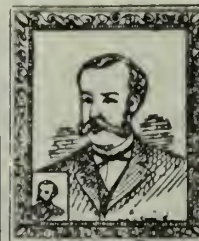
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Beautiful Life-Size Portraits copied and enlarged from photographs and tintypes; small originals of any kind in crayons, water colors, ink, oil or pastel. A fine corps of artists. The finest and most artistic work. Lowest prices. Satisfaction guaranteed. Framing pictures a specialty. Reference: RURAL PRESS.

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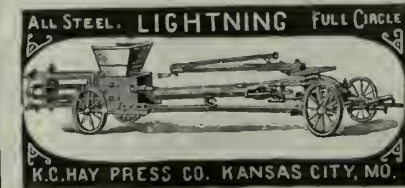
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Iron cut, punched and formed, for making pipe on ground. All kinds of Tools supplied for making Pipe. Estimates given. Are prepared for coating all sizes of Pipe with a composition of Coal Tar and Asphaltum.



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**The Armstrong Automatic PORTABLE ENGINE and BOILER.**

The Best, Lightest, Cheapest Engine in the world. Can be arranged to Burn Wood, Coal, Straw or Petroleum. 5 or 8 H.P. Mounted on skids or on wheels.

TRUMAN, HOOKER & CO., San Francisco.



The Sweet-Wine Law.

Producers of sweet wines have had much to vex and perplex them in the efforts of the revenue officials to comply with the new law. The Washington office took the wrong ground that California must should not contain over 26 1/2 per cent of sugar. This wrong conception of the facts was successfully combated by united action among the sweet-wine makers, the officials of the Viticultural Commission and other experts, and was corrected. It was claimed in Washington that there is no record in the reports of the Viticultural Department of the University of California of any musts containing more than 26 1/2 per cent of saccharine matter.

This is a mistake. The published records of the Viticultural Department are for the most part on dry wines, not sweet wines, yet even by them the revenue office is grossly in error, as may be seen by the following letter from Professor Hilgard:

To the Editor of the Examiner—SIR: Permit me to call your attention to the fact that the statement made in your issue of yesterday, that my reports on the musts and wines of California show no record of higher saccharine strength than 26 1/2, is incorrect. Page 22 of a report published in 1888, herewith inclosed, gives a list of musts ranging from 27.54 to 30.80 per cent. Why this should have been overlooked both at Washington and San Francisco is obscure; for that report was widely circulated at the time of publication. A large additional list of such musts is on record at this laboratory, and can be furnished if necessary. The above record, with a general statement of the facts in the premises, has been forwarded to Commissioner Mason early this week, in addition to telegrams previously sent.

The absence of a large number of such examples in the earlier reports is of course due to our investigations being entirely in the direction of dry wines, which heretofore have been by far the predominant interest. It was not easy to foresee that such a question as the present would be likely to arise.

Berkeley, Cal., Feb. 7th. E. W. HILGARD.

The saccharine strength of sweet-wine must, so far from being limited to 26 1/2 or even to 30.80 per cent, often runs as high as 36 per cent, and there are some instances in which it has reached 40 per cent.

This wrong conception of the facts was combated by strong statements sent to Washington by Mr. Wetmore and others, but there seems to have been another error by the Washington experts which has worked great hardship to the sweet-wine men. It is embodied in the following official letter which followed a telegram stating briefly the fact to the Washington office:

BERKELEY, Feb. 10, 1891.  
Hon. John W. Mason, Commissioner Internal Revenue, Washington.—DEAR SIR: I have this morning wired to you the result of an investigation made by me into the discrepancies between the determinations of alcohol in sweet wines made according to the saccharometer method prescribed by the Department and by the analytical method of distillation. My attention was called to it by Mr. John Gallegos of Irvington, Alameda county, and at his request I assisted Deputy Collector Borland in a series of comparative tests, which were afterward repeated with more delicate instruments at the station laboratory here. As in every instance the saccharometer test gave several per cent less than distillation, I was at once led to suspect that the tables were in fault, and upon a full comparison I find this to be undoubtedly the case. The figures in the tables headed "Alcohol by Volume" really represent "alcohol by weight" percentage, and require to be divided by about .8 in order to give the true result, although no calculation I have made on the basis of the standard tables for "Attenuation" give the exact figures of the official tables.

The seriousness of such an error, if left uncorrected in its bearing upon the legal status of the sweet wines now in the hands of our makers, involving such heavy pecuniary interests, needs no comment, whether as regards the fortifications already made or those which might be made hereafter on the basis of the erroneous determinations.

The instructions given for making the tests are also defective in this, that they fail to call the attention of the operators to the necessity of freeing the wines from carbonic gas before testing their saccharometer reading. Practically all sweet wines are at this time in more or less slow fermentation, and the gas bubbles adhering to the bulb of the spindle buoy it up so as to diminish, to a varying degree, the differences relied upon for the estimation of alcohol in the wine. To this cause may be traced the irregularities in the discrepancies due to the difference between "weight-per cent" and "volume-per cent" in actual observations; and to obviate it by aeration or warming involves more skill in manipulation than is ordinarily to be expected if graver errors are to be avoided. I think it would be altogether better, and as brief, to adopt the distillation ("salleron") instead of the saccharometer method for the determination of alcohol in the sweet wines.

As I write this I am in receipt of your telegram stating that the table in question is correct and is founded on Stevens' alcohol tables and Schulze's saccharine tables. As I wired you in reply, the table is correct for weight per cent of alcohol, but not for volume per cent, as stated in the table heading and in the text preceding it. But as this is a plain question of physics and figures, about which there can be no two opinions among experts, I abstain from any discussion of the subject. Very respectfully your obedient servant,

E. W. HILGARD,  
Director of California Experiment Station.

Must Have the Rural:

An esteemed subscriber formerly living at San Jose but now in Oregon sends the following substantial compliment: "I inclose \$2.50 for the RURAL PRESS during my stay here, as I am lost without the paper and do not get it regularly from home. The RURAL PRESS is where I see not only the faces of my friends mirrored but their souls also."

The Southern Citrus Fair.

A general canvass which has been made throughout the Sixth Congressional District, in behalf of the State Citrus Fair, shows highly satisfactory results. The people of almost every locality in the southern section of the State seem to be thoroughly awake to the necessity of making a suitable display of their citrus and other products, and there is ample reason to believe that the fair will be one of the most successful events of its character ever held on the coast.

The Citrus Fair is an enterprise inaugurated by the State for the purpose of encouraging the production of citrus and semi-tropic fruits. The sum of \$2500 is offered in premiums, to which the Fair Committee has added \$400 for special designs in exhibits. The first of these fairs was held last year and was attended by some 20,000 visitors. Fruit-growers and those interested in the sale of fruit land have generally declared that no one event ever gave such a stimulus to the citrus industry. For almost the first time producers from every part of Southern California met on common ground to inspect the results of one another's labor and to compare notes on methods. A keen but wholesome rivalry was aroused between various localities, whose representatives returned home determined to put forward their best efforts to win greater honor at the next fair. But perhaps the most valuable of all the results attained was the object-lesson to the public of the size and importance of this element of Southern California's natural wealth.

It is now about three weeks before the fair opens, yet active organizations have already been formed in six counties and in 21 individual localities. In every case a committee of energetic, public-spirited men has been selected, composed partly of orange-growers and partly of citizens who have an interest in seeing their section well represented at the fair. In some localities considerable sums of money have been raised to cover contingent expenses connected with making a fine exhibit.

It is generally conceded that the two citrus fairs held in the northern part of the State, the first at Oroville in 1890 and the second at Marysville in 1891, were thoroughly successful from a popular point of view—that is to say, they were attended by immense numbers of people. There can be no doubt that this result was achieved largely through the attractiveness of the display—the working out of elaborate designs and the elegant decoration of the building. Nearly every locality, which has thus far entered the lists for the fair in Los Angeles in March, has announced its intention of making its exhibit in some form which will not only serve as a medium for the display of its best fruit, but will at the same time satisfy the public taste for the beautiful. The management of the fair will co-operate with any section in its efforts in this direction, advising with regard to design, allowing adequate space and providing materials to be used in construction of the framework free of charge. To this same end special premiums have been offered by the committee for the most artistic display of citrus fruits: First, \$150; second, \$100; third, \$75; fourth, \$50; and fifth, \$25. Six localities have already decided upon their designs, and several more have the matter under active discussion.

The committee will spare no expense in decorating the building to be in perfect harmony with the displays. It is proposed to show our visitors and our own people not only the finest citrus fruit in the largest quantities ever gathered together, but also the most artistic and beautiful display of the same. It will be an orange palace rivaling in splendor the ice, coal and oorn palaces of various cities of the East.

The question which the Citrus Fair Committee has to ask of each locality is this: Are you awake to what is being done elsewhere, and will you hold your own in the contest?

E. W. JONES, C. M. WELLS, J. W. COOK, Executive Committee.

H. JAY HANCHETTE, Secretary and Superintendent.

Los Angeles Feb 7, 1891.

TWO FINE NEW BRIDGES.—The Los Angeles World thus describes two bridges which the Southern Pacific is to build at Los Angeles: The Southern Pacific Company has submitted plans to the City Engineer for two superb bridges which it proposes to build at once. The largest one is to cross the Los Angeles river north of the Santa Fe bridge at the base of the bluff by the reservoir at Elysian Park. This will be a double-track, steel "skew" bridge of two spans of 156.4 feet each. This will take the place of the bridge which was carried away by the flood of last winter, and which destroyed the bridges to the south by lodging against them. The other bridge will be of the same type and pattern, the only difference being that it will be single track. It will also consist of but two spans of 166.8 feet. This will be placed at the end of Mission street, on the Yuma division of the road. Both of these bridges will be the finest specimens of such work ever built in this city. They will rest on iron cylinders seven feet in diameter; these will be sunk 50 feet below the bottom of the river and then filled with concrete. These bridges will be the first in this locality to use only two spans in crossing the river. They will also be placed four feet higher above the level of the river than any heretofore built, thus reducing the danger of damage from debris float-

ing on high water. This elevation will necessitate the raising of the Santa Fe and Terminal Companies' tracks at their crossings. These bridges will involve an expense by the Southern Pacific Co. of \$100,000 or more.

QUERIES AND REPLIES.

Esparcet.

EDITORS PRESS:—Among the many that have tried Esparcet, the undersigned may be numbered. We sowed it about the time alfalfa is generally sown, the latter part of April, in 1888. The land was new, mellow and fertile, having raised a good crop of hay the year before. The seed, obtained from J. Bowen at the high figure of 17 cents per pound, was sown like grain and harrowed in. The little plants that actually came up could be counted at one's finger's ends. They grew to six inches in height and withered during the summer. The next year not a sign of Esparcet was to be seen. Our land is billy and alfalfa won't do well at all, but Esparcet also is, in our opinion, not suited for dry uplands in California.—R. JORDAN, Napa.

Grafting.

EDITORS PRESS:—Will you kindly inform many of your readers in your valuable paper whether it is true that any kind of fruit trees may be grafted successfully on the fig and vice versa? If not, which species can be grafted upon? Also, to improve a variety, is it enough to graft on it a scion of an identical species and variety?—A SUBSCRIBER.

We should say no to both questions. Who can answer otherwise?

Logs for Water-Pipes.

EDITORS PRESS:—I should like to ask through the columns of the PRESS which kind of logs will last longest under ground, for conveying water for irrigation—pine or spruce? Also, if any of the readers of the PRESS know of a cement that can be used about the joints of the logs to keep them from leaking. Also, what is the best composition to put on the logs to prevent their decay. I read some time ago of a man saturating underground timbers with coal oil and then covering them with tar. Has any one tried that method?—J. W. C., El Dorado Co.

We would like experience on these points.

List of U. S. Patents for Pacific Coast Inventors.

Reported by Dewey & Co., Pioneer Patent Solicitors for Pacific Coast.

- FOR WEEK ENDING FEB. 3, 1891.  
445,742.—SHINGLE AND SHAKE MACHINE—Chas. W. Babcock, Crescent City, Cal.  
445,828.—SEPARATING CROSS-HEAD TIE-WIRES—G. B. Baer, Cloverdale, Cal.  
445,747.—STRIKING BAG—H. B. Cook, S. F.  
445,750.—LETTERING DEVICE—L. A. Gates, S. F.  
445,729.—STOVE TOP—Peter Haerst, S. F.  
445,892.—WATER-CLOSET—J. M. Holloway, Santa Barbara, Cal.  
445,753.—FRUIT-PITTER—James T. Isb, S. F.  
445,837.—PNEUMATIC BELL—G. F. Kincaid, S. F.  
445,730.—AX-HELVE FASTENER—H. M. Martin, Tacoma, Wash.  
445,818.—SHEAVE—Thomas O'Neill, S. F.  
445,910.—ELASTIC FENDER FOR VESSELS—G. O. Stein, Picoche, Nev.  
445,866.—CLOTHES-HANGER—E. Sundberg, Eureka, Cal.  
445,612.—SELF-CLOSING GAS BURNER—W. Ten Eyck, Oakland, Cal.  
445,579.—VAGINAL ATOMIZER—W. E. Weldon, S. F.  
18,930.—TRADEMARK—R. D. Hume, S. F.

The following brief list by telegram for Feb. 10, will appear more complete on receipt of mail advices: California.—Lewis M. Clement, Oakland, cable street railway; Julia W. Craig, San Francisco, chair; Peter H. Jackson, San Francisco, lens for illuminating tile; Ammi M. Jewell, San Francisco, boring machine; Edwin McDonald, Willows, thrashing machine; James F. Waite, San Francisco (assignor of half to William Hollis), brake for cable-car.

NOTE.—Copies of U. S. and Foreign patents furnished by Dewey & Co., in the shortest time possible (by mail or telegraphic order). American and Foreign patents obtained, and general patent business for Pacific Coast inventors transacted with perfect security, at reasonable rates, and in the shortest possible time.

BERKSHIRE SALES.—Phil. M. Springer, Secretary American Berkshire Association, Springfield, Ill., sends the following transfers of recorded Berkshires: Alto's Charming 25192, Obermer's Sovereign 25193 and Alto's Gem 25, 194, J. B. Hamill, Alto, Wash., to Thompson & Brown, Pendleton, Oregon; Stony Oak Oregon Girl 25029, Thos. H. Tongue, Hillsboro, Oregon, to J. S. Wintemute, Tacoma, Wash.; Oxford Belle XX 25092, U. H. Gentry, Sedalia, Mo., to Walter R. Goodall, Livingston, Mont.; Wyo. Duke 25489, A. W. Cooley, Coldwater, Mich., to T. J. Dickinson, Fort Steel, Wyoming; Victoria 25509 and Victoria II 25510, A. J. Lovejoy & Son, Roscoe, Ill., to John H. Temple, Pnenta, Cal.

Of Interest to Fruit-Growers.

We are in receipt of the annual spring catalogue issued by Wm. Stahl, of Quincy, Ill., giving a full description of all injurious insects to fruits, also preventives for same by use of fungicides. This catalogue gives a detailed account of the above in full. Any of our readers who are interested in fruit culture will do well to send for this catalogue, which is mailed free upon application. The subject of spraying the fruit trees, plants and vines to prevent the ravages of insects and fungus diseases is a critical one, and should be investigated by every fruit-grower.

SAM C. PARTRIDGE has recently issued a circular of interest to owners or operators of magic lanterns. In order to stimulate interest in the use of magic lanterns and the making of slides, he submits four prize offers. The first is a "Star" sciopticon, valued at \$50, for the best set of eight slides; the second, a "Home" sciopticon, valued at \$25, for the second best set of eight slides; the third, a prize of 24 dozen lantern slide plates or other material, valued at \$15, for the best single slide, not in the winning sets; the fourth, any goods pertaining to the magic lantern, valued at \$10, for the second best single slide not in winning sets. The circular contains other information regarding this interesting matter, and all magic lantern owners should secure a copy and engage in the contest for one of these prizes. Mr. Partridge's address is 226 Bush St., S. F.

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## Breeders' Directory.

Six lines or less in this Directory at 50c per line per month.

### HORSES AND CATTLE.

**HENRY HAMILTON**, Westley, Cal., breeder of Kentucky Jacks and Jennies, Draft Horses and Holstein Cattle. Jacks, Horses and Mules for sale.

**JERSEY BULL**, No. 463 P. C. J. C. C. for sale cheap. A fine four-year-old animal. Address Dellwood Poultry Yards, Napa, Cal.

**J. R. ROSE**, Lakeville, Sonoma Co., Cal., breeder of Thoroughbred Devons, Roadsters and Draft Horses.

**P. PETERSEN**, Sites, Colusa Co., Importer & Breeder of registered Shorthorn Cattle. Young bulls for sale.

**WILD FLOWER STOCK FARM**, Fresno Co. A. Heilbron & Bro., Props., Sac. Breeders of thoroughbred strains and Cruikshank Shorthorns; also Registered Herefords; a fine lot of young bulls in each herd for sale.

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**WILLIAM NILES**, Los Angeles, Cal. Thoroughbred Registered Holstein and Jersey Cattle. None better.

**T. PHILLIPS**, Simi, Ventura Co., Cal. Pure Bred Percheron Horses for sale.

**OOTATE RANCH BREEDING FARM**, Page's Station, S. F. & N. P. R. R. P. O., Ponn's Grove, Sonoma Co., Cal. Willard Page, Manager. Breeders of Short Horn Cattle, English Draft Horses, Spanish Merino Sheep and Berkshire Swine.

**PURE-BRED HOLSTEIN FRIESIAN Cattle** for sale. Bonnie Brae Cattle Co., Hollister, Cal.

**JOHN LYNCH**, Petaluma, breeder of thoroughbred Shorthorns. Young stock for sale.

**J. H. WHITE**, Lakeville, Sonoma Co., Cal., breeder of Registered Holstein Cattle.

**M. D. HOPKINS**, Petaluma, Importer and dealer in Eastern registered Shorthorns, Red Polled Cattle, Holsteins, Devons and Shropshire Sheep.

**PETER SAXE & SON**, Lick House, San Francisco, Cal. Importers and Breeders, for past 18 years, of every variety of Cattle, Horses, Sheep and Hogs.

### POULTRY.

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**KIRKPATRICK & WHITTAKER**, Knights Ferry, Cal., breeders of Merino Sheep. Rams for sale.

**L. U. SHIPPEE**, Stockton, Cal., Importer and breeder of Spanish Merino Sheep, Durham Cattle, Jacks and Jennys & Berkshire Swine high graded rams for sale.

**ANDREW SMITH**, Redwood City, Cal.; see adv't.

### SWINE.

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**ON SATURDAY, MARCH 7, 1891, AT 1 P. M., AT OAKLAND TROTTER PARK.**

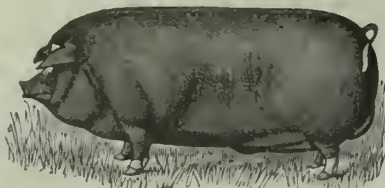
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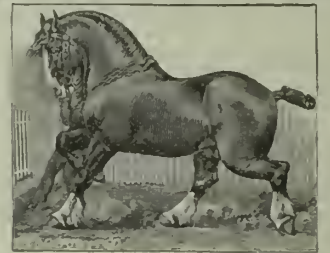
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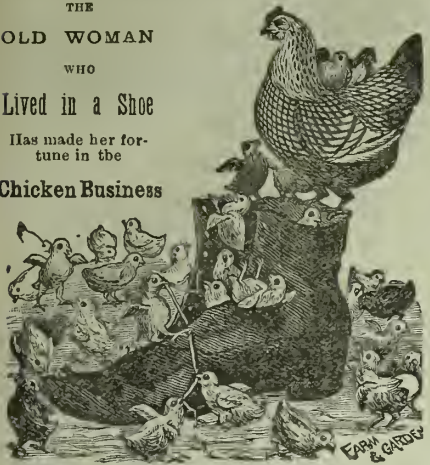
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## S. H. MARKET REPORT

## Market Review.

## DOMESTIC PRODUCE, ETC.

SAN FRANCISCO, Feb. 11, 1891.

Continued dry weather has a tendency to depress trading in farm products, and until it is definitely determined by time whether there will be much of a rainfall in this month, dealers and speculators will not operate much. With a generous, well-distributed rainfall within the next fortnight, confidence will be established that we will have good crops this year, and business will resume its wonted course; but without a rainfall within that time, speculators are apt to take charge of the market, particularly for grain. Money is fairly easy. Considerable money can be had after tax-assessment day. The wheat markets at the East and abroad have shaded off. The following is to-day's cablegram:

LIVERPOOL, Feb. 11.—Wheat—Firm and held higher. California spot lots, 75 6d to 75 9 1/2d; off coast, 38s 3d; just shipped, 37s 9d; nearly due, 38s; cargoes off coast, quiet; on passage, few bids in market; Mark Lane wheat, few buyers in market.

## Foreign Grain Review.

LONDON, Feb. 9.—The *Mark Lane Express* says: English wheats are firm, and prices of foreign are supported. Russian is 6d higher; California firm. Barley is firm; oats strong; corn steady. At today's market the best English wheats were well held. Foreign, excepting white sorts, dropped 6d under abundant shipments.

## Liverpool Wheat Market.

The following are the closing prices paid for wheat options per cwt. for the past week:

	Feb.	Mar.	April	May	June	July
Thursday.....	78 1/2d	78 1/2d	78 1/2d	78 1/2d	78 1/2d	78 1/2d
Friday.....	78 1/2d	78 1/2d	78 1/2d	78 1/2d	78 1/2d	78 1/2d
Saturday.....	78 1/2d	78 1/2d	78 1/2d	78 1/2d	78 1/2d	78 1/2d
Monday.....	78 1/2d	78 1/2d	78 1/2d	78 1/2d	78 1/2d	78 1/2d
Tuesday.....	78 1/2d	78 1/2d	78 1/2d	78 1/2d	78 1/2d	78 1/2d

The following are the prices for California cargoes for off coast, nearly due and prompt shipments for the past week:

	O. C.	P. S.	N. D.	Market.
Thursday.....	38s 3d	38s 3d	38s 3d	Quiet.
Friday.....	38s 3d	38s 3d	38s 3d	Dealer.
Saturday.....	38s 3d	38s 3d	38s 3d	Quiet.
Monday.....	38s 3d	38s 3d	38s 3d	Quiet.
Tuesday.....	38s 3d	38s 3d	38s 3d	Inactive.

## Eastern Grain Markets.

The following shows the closing prices of wheat at New York for the past week, per bushel:

	Day.	Feb.	Mar.	April	May	June	July
Thursday.....	110 1/2	110 1/2	110 1/2	110 1/2	110 1/2	110 1/2	110 1/2
Friday.....	110	110	110	110	110	110	110
Saturday.....	109 1/2	109 1/2	109 1/2	109 1/2	109 1/2	109 1/2	109 1/2
Monday.....	109 1/2	109 1/2	109 1/2	109 1/2	109 1/2	109 1/2	109 1/2
Tuesday.....	111	110 1/2	110 1/2	110 1/2	110 1/2	110 1/2	110 1/2

The closing prices for wheat have been as follows at Chicago for the past week, per bushel:

	Day.	Mar.	June	July	Aug.
Thursday.....	99 1/2	99 1/2	99 1/2	99 1/2	99 1/2
Friday.....	99 1/2	99 1/2	99 1/2	99 1/2	99 1/2
Saturday.....	97 1/2	97 1/2	97 1/2	97 1/2	97 1/2
Monday.....	97 1/2	97 1/2	97 1/2	97 1/2	97 1/2
Tuesday.....	98 1/2	98 1/2	98 1/2	98 1/2	98 1/2

NEW YORK, Feb. 11.—Wheat—\$1.11 for February, \$1.10 1/2 for March, \$1.06 1/2 for May, \$1.04 1/2 for June, \$1.00 1/2 for July, and 98c for December.

CHICAGO, Feb. 11.—Wheat—97 1/2c for May and 93 1/2c for July.

## Dried Fruits.

NEW YORK, Feb. 7.—Small parcels of California seedless muscatel raisins were sold yesterday at 8 1/2c. Sultanias are quoted at 10 1/2c. The Roman brands crown loose raisins are quoted at \$1.80 per box. A freer movement in California evaporated apples is noted.

NEW YORK, Feb. 9.—The run of business in dried fruit is not large. The last values in prunes, peaches and apricots are supported. There is a more encouraging outlook for evaporated apples than noted earlier. They ought to make a fair profit. Landed price, \$13.40, with State stocks diminished and barreled apples almost out of reach.

Our important baking interest will endeavor to overcome the objection to the sweet flavor of California dried fruits, even if the sharpening effect of lemon juice has to be adopted.

Raisins move in a peddling sort of way, with prices favoring buyers. Two-crown boxes sold at \$1.25; other marks and bags as before.

## Eastern Wool Markets.

NEW YORK, Feb. 8.—Wool continues to go out freely at strong prices for interior holdings, and unimportant remnants are quoted beyond the seaboard limit. Stocks generally are light, some heavy buyers directing more attention to foreign good long staple. Australian for mixing sold freely at 36 1/2c. Though goods have not taken on the general movement expected, the attitude of manufacturers indicates confidence. Underwear replenishment should soon revive. It is not unlikely that the possible advance of raw material will prompt long line dealers to avail themselves of current prices. As it is, a fairly active demand prevails for popular priced clothing goods and deliveries.

## Oregon Hop Notes.

EUGENE, Feb. 7.—The Lane County Hop-Growers' Association was to have held its annual meeting to-day for the election of officers, but as the attendance was small they adjourned for two weeks. Buyers are offering to-day to contract for the hop-crop of 1891 at 16 1/2 cents per pound, which is very encouraging to the growers. The hop men of this county are preparing to make extra exertions and will produce more hops for the market than ever before.

## Miscellaneous.

NEW YORK, Feb. 9.—Lima beans are firm at 33 per bushel. The attempted advance was not met.

All honey is tending higher in a moderate way. Light amber is quoted at 7 1/2c.

Hops were dull most of the week. Recent ranges are not notably changed. At the close 300 bags Washington and Oregon brought 33 1/2c; 300

good state, 32 1/2c and useful old was held at 8c. Interior markets are firm. A London letter says that 5000 pounds comprise the unsold stock.

## Local Markets.

	Buyer Season.	Seller 1891.	Buyer 1891.
Thursday.....	149 1/2	149 1/2	149 1/2
Friday.....	148 1/2	148 1/2	148 1/2
Saturday.....	148 1/2	148 1/2	148 1/2
Monday.....	149 1/2	149 1/2	149 1/2
Tuesday.....	148 1/2	148 1/2	148 1/2

\*After August.

	Buyer Season.	Seller 1891.	Buyer 1891.
Thursday.....	147 1/2	147 1/2	147 1/2
Friday.....	147 1/2	147 1/2	147 1/2
Saturday.....	147 1/2	147 1/2	147 1/2
Monday.....	148 1/2	148 1/2	148 1/2
Tuesday.....	147 1/2	147 1/2	147 1/2

BAGS.—The market is dull at 6 1/2c to 6 3/4c for May-June delivery.

BARLEY.—The sample market has held strong under a good demand and moderate receipts. In futures, trading has been light. Under the rules of the Call Board, prices for futures can be sent down very low, but they cannot be sent up very high, which, of course, is in favor of bears. The following are the reported sales made at today's Call:

Morning Session: Buyer 1891—100 tons, \$1.48 1/2; Buyer Season—100 tons, \$1.48 1/2; 300, \$1.48 1/2; 100, \$1.48 1/2. Seller 1891—400 tons, \$1.12; 200, \$1.11 1/2. Afternoon Session: Buyer 1891—100 tons, \$1.48 1/2. Buyer season—100 tons, \$1.48 1/2. Seller 1891—100 tons, \$1.11 1/2.

BUTTER.—Receipts have been free considering the weather, which causes dealers not to anticipate their wants. The demand being more restricted causes a weaker tone.

CHEESE.—The market is poorly supplied, which causes a strong tone at full prices.

EGGS.—Stocks appear to be increasing, which cause some shading to place consignments. The demand, as usual in Lent, is good.

FLOUR.—The market is quiet but strong.

WHEAT.—The sample market is reported slow, pending exporters cleaning up before tax-assessment day. Over 20,000 tons were exported the past week. In futures, trading on Call has been light, operators apparently being more engaged in weather prognostications than in dealing in wheat. The reported sales at to-day's Call are as follows:

Morning Session: Buyer 1891—300 tons, \$1.48; 100, \$1.48 1/2; 1000, \$1.47 1/2. Buyer season—900 tons, \$1.42 1/2; 600, \$1.47 1/2. Afternoon Session: Buyer 1891—300 tons, \$1.47 1/2. Buyer season—200 tons, \$1.41 1/2.

## Market Information.

## Produce Receipts.

Receipts of produce at this port for the week ending Feb. 10th, were as follows:

Flour, qr. sks.....	125,690	Middlings, sks.....	381
Wheat, cts.....	434,556	Alfalfa, ".....	...
Barley, ".....	20,732	Chicory, hbls.....	230
Rye, ".....	636	Broomcorn bbls.....	45
Oats ".....	17,409	Hops, bbls.....	35
Corn ".....	1,183	Wool, ".....	53
*Butter ".....	733	Hay, tons.....	1,703
do bxs.....	87	Straw ".....	97
do bbls.....	...	Wine, gals.....	242,660
do kegs.....	...	Brandy, ".....	18,986
do tubs.....	...	Raisins, bxs.....	700
do 1/2 bxs.....	350	Honey, cs.....	...
+Cheese, cts.....	408	Walnuts, sks.....	...
do bxs.....	26	Flaxseed, ".....	162
Eggs, doz.....	52,060	Mustard, ".....	1,141
do "Eastern.....	11,820	Almonds, ".....	152
Beans, cts.....	2,414	Peanuts, ".....	436
Potatoes, sks.....	31,382	Pocorn, ".....	65
Onions, ".....	1,299	Beet sugar, bbls.....	...
Bran, ".....	20,208	do do sks.....	...
Buckwheat ".....	...	...	...

\*Overland 446 cts. +Overland 4 cts.

## Pear Crop In Georgia.

New York *Fruit Trade Journal*, Jan. 17: The area of LeConte pear groves in Southwest Georgia and Northwest Florida is getting to be very large. Planting these groves began in earnest about ten years ago, and thousands of trees have been set every year since. Although the trees begin bearing at six years of age, and the yield increases each year, they require to be ten years old before the output is more than a barrel to the tree. The number of bearing trees the coming season will be much larger than ever before, and will increase yearly for several years. All present indications are for an immense crop the coming season. The trees are now (Jan. 8) in prime condition. The weather during the summer, fall and early winter has been thoroughly favorable. The territory of which Thomasville, Ga., is the center, extending fifteen miles in every direction, abounds in LeConte pear groves. How we are to dispose of the fruit is a serious question. We have no canning establishment, and will need one or more that can use several thousand bushels daily. It will be impossible to gather and ship fresh fruit, although we have six weeks in which to do so. Shipping begins July 1, and continues until the middle of August. The Keiffer pear, ripening after the LeConte, is fast coming into prominence here, but most of the trees are small, and the product the coming season will be only a few hundred barrels.

## Washington Hop Items.

Anacortes *Farmer*, Jan. 23: The hop men at Puyallup are beginning to talk of starting out contracting for hops, despite their previous intention not to do so. It is believed that the hop lice will not be as numerous and as injurious as was at first expected.

A writer from Kent, Wash., says: The hop-growers of the valley propose to meet here soon to perfect an organization for mutual benefit and protection. Few hops remain in the hands of growers. Mr. D. Mullin is one, however, who retains his entire crop, being confident that prices will rule considerably higher before another crop is ready for the harvest. An examination of the hop-yards of the

Puyallup valley, as well as those of the Green river valley, reveals the fact that the hop lice of last season are still alive. It is, no doubt, a serious state of affairs, and some means should be employed to destroy the vermin. It has been urged on the hop-growers the absolute necessity of destroying by fire every bit of refuse left in the field after the hop-picking was over. Those who did not do so will now regret it, as it will be much more difficult to rid the yard of the vermin now than it was several months ago. There is much less disposition among growers to increase their acreage this year than last, nevertheless several in the Puyallup valley are putting out new roots, but general crops will be more numerous this year than on any previous occasion. There is considerable inquiry for market-gardening land, which indicates that this class of agriculture has not reached its maximum, nor indeed can it while the demand for such commodities is daily on the increase. It may be said that there is not such a thing in Puyallup now as a buyer. Those who are there are not doing any business.

## Wheat Crop of 1890.

The Department of Agriculture gives the following estimate of the 1890 wheat crop by States:

	Acres	Bushels.
Maine.....	40,213	543,000
New Hampshire.....	9,155	140,000
Vermont.....	19,478	335,000
Connecticut.....	1,876	30,000
New York.....	640,540	9,288,000
New Jersey.....	138,883	1,680,000
Pennsylvania.....	1,337,437	16,043,000
Delaware.....	94,790	919,000
Maryland.....	535,143	6,208,000
Virginia.....	801,956	5,614,000
North Carolina.....	717,228	3,156,000
South Carolina.....	178,069	1,411,000
Georgia.....	384,159	1,310,000
Alabama.....	293,049	1,310,000
Mississippi.....	60,750	286,000
Texas.....	510,711	3,675,000
Arkansas.....	221,848	1,575,000
Tennessee.....	1,175,052	7,873,000
West Virginia.....	302,086	2,326,000
Kentucky.....	943,518	9,152,000
Ohio.....	2,398,741	29,984,000
Michigan.....	1,601,561	20,271,000
Indiana.....	2,433,605	27,925,000
Illinois.....	1,853,173	18,161,000
Wisconsin.....	1,073,475	13,096,000
Minnesota.....	3,143,917	38,256,000
Iowa.....	1,685,080	19,041,000
Missouri.....	1,603,459	17,638,000
Kansas.....	2,054,000	28,195,000
Nebraska.....	1,418,059	15,315,000
California.....	2,436,730	29,121,000
Oregon.....	887,250	12,865,000
Nevada.....	18,489	250,000
Colorado.....	96,030	1,771,000
Arizona.....	25,940	311,000
The Dakotas.....	4,200,482	40,411,000
Idaho.....	33,058	1,370,000
Montana.....	37,550	1,488,000
New Mexico.....	90,610	1,105,000
Utah.....	130,251	2,279,000
Washington.....	438,275	8,070,000
Totals.....	36,087,154	399,262,000

## Cereals.

The local wheat market has held to weak prices throughout the past week. Buyers are evidently following their old tactics of holding off in the month of February, so as to get all the cheap bargains they can up to tax-assessment day. Exporters are giving as quick dispatch to vessels as their small holdings of grain warrant. It is claimed by many that after the middle of next month the market is likely to do better; at any rate, prices are considered low enough for an investment. In the absence of much of a legitimate demand, the bears on Call are amusing themselves by quoting, through cross-orders and wash sales, the market for futures at lower prices. They are undoubtedly actuated by a desire to send the sample market to lower figures. By securing low quotations on Call for futures, they hope to inspire a feeling of distrust among capitalists and others who have made advances on warehoused grains to call on farmers for more grain or else for money to make their margins stronger, and failing in securing a favorable response, then the grain would be thrown on the market. It is needless to say that the ring would take in all sold at low prices. The dealing in futures is against farmers; this the writer has, at different times, for four years past taken occasion to show producers. The low price of silver is against the wheat market abroad, but it is claimed that better prices will soon obtain for the metal. While silver is lower abroad, yet, with all things considered, the price of wheat in our market is below the English parity for Californian. Washington and Oregon wheat is still coming to hand fairly free, but as the markets in those States are slightly higher, it is not at all unlikely that shipments to us will fall off.

Complaints are beginning to be heard of dry weather. While this is the case, yet it is stated by each and all that the grain crops can stand a fortnight or so of the kind of weather we are experiencing at present. There is more or less humidity in the air which keeps the ground from drying entirely, and, if, perhaps, the sandy soil be excepted. The barley market has been fairly strong. The scarcity of natural feed causes more to be fed, and as the supply in this State is light, only full figures draw out sellers. Receipts from Oregon and Washington while not large, yet show an increase over receipts in 1890 from the same sources. The erecting at San Jose of large buildings for malting, will admit of concentrating the buying of brewing barley, and with lessened competitive buying, prices are not likely to be forced up. It is stated that the new malt enterprise will not only supply the coast brewers, but be able to send considerable hence, which will admit of a larger consumption of barley. Every monopoly has its silver lining with which to bait suckers.

There is a good inquiry for white corn for export. Outside of this, the market is quiet, but the tone is strong for both yellow and white.

Rye is steady at full prices.

Oats are coming in very freely from up north, and as dealers do not care to stock up heavily in this month, the market is lower and drags at the decline. As usual, the reports of limited obtainable supplies from up north are proving erroneous. It seems that with good prices the supplies from up north are almost endless. The consumption in this city and other cities in the State is reported to be quite large.

## Feedstuff.

Ground feed continues in good demand, due to cold weather and scarcity of grass. The receipts of bran, middlings and other ground feed are very

large, but the market absorbs all without any shading in prices.

Oil cake meal is used more freely than for several winters past. This is due to its relative cheapness.

Hay holds to high prices. Nevada is sending in liberal supplies, which goes into consumption at good prices. The grade is a good average quality. Some of the ranchers in that State use salt when baiting, which, when properly proportioned, causes cattle to feed it up clean. The cold weather is against growing grass.

## Live-stock.

The market for live-stock is well supplied, and as is usual during Lent, slaughterers are doing all they can to depress prices. The scarcity of grass and the high prices ruling for hay and ground feed are against stockmen. There are increasing numbers of poor cattle being slaughtered.

The market for dressed cattle is quoted as follows [to obtain the price on foot, take off from the price for stall-fed one-third to one-half, according to the nature of the feed and time fed; and for grass-fed take off the price from 40 to 60 per cent]:

HOGS.—On foot, light grain fed, 4 1/2c to 5c lb.; dressed, 7 1/2c to 8c lb.; heavy, 4 1/2c to 5c lb.; dressed, 6 1/2c to 7c lb. Stock hogs, 3 1/2c to 4c lb. BEEF.—Stall fed, 6 1/2c to 7c lb.; grass fed, extra, 6c to 7c lb.; first quality, 5 1/2c to 6c lb.; second quality 4 1/2c to 5c lb.; third quality, 3 1/2c to 4 1/2c lb.; bulls and thin cows, 2c to 3c lb.

VEAL.—Small, 6c to 7c lb.; large, 5c to 6c. MUTTON.—Wethers, 8c to 9c lb.; ewes, 7 1/2c to 8 1/2c lb.; spring lamb, 15c to 18c lb.

## Fruits.

The market for apples appears to be glutted with poor to fair, but choice to gilt-edged are not in oversupply, yet the large quantities of the former depress the market value of the latter.

Oranges barely hold their own. The cold weather is against them. With warmer weather the distributive demand could show a very large increase. Hucksters and dealers in low-priced fruits confine their purchases to the smaller sized oranges, those which can be sold at from 10 to 20 cts a dozen. The cold weather east of the Rocky mountains is said to be against the sending of large quantities overland. Growers are not crowding the market.

In some localities where it is said fruit trees had budded, fears are expressed that the cold wave has done some damage.

Dried fruits are dull, but as the supply is light, any increase in the demand this spring will, it is claimed, bring about slightly better prices for some varieties. With warmer weather at the East the markets there will probably improve.

Raisins are in poor demand, with a liberal supply for the season to draw from.

## Vegetables.

The cold weather checks the growth of garden truck. A heavy frost last night nipped the more tender plants. The southern counties continue to supply us with limited quantities of early spring vegetables.

Onions are slightly higher. The demand is reported good, but in a small way, that is, buyers confine their purchases as much as possible.

Potatoes are coming in quite freely, which causes concessions to place consignments. The receipts from up north show the largest increase. It takes the very best to fetch top prices. New, as yet, come in sparingly.

## Miscellaneous.

Poultry advanced slightly for the better conditioned, but is again weakening under increasing receipts.

Hams and bacon are weak under free supplies. Grass seed is slow. The demand appears to be about over for the season.

Almonds are in fair demand. There appears to be a stronger market. Other nuts are unchanged. The wine men feel encouraged, owing to a prospect of the present Legislature passing a uniform low-liquor license. Their belief in this being done is founded upon pledges made to the Wine and Liquor Dealers' Association by party managers that such a law would be passed if the party was successful at the State election in November of last year.

Hops are slow. Very few offerings. Some contracts for next crop delivery are reported at 16 cts (15 cts net to grower), but large conservative houses are not disposed to contract ahead.

Wool is dull.



ca, 5745; Mexico, 198; China, 15,346; Japan, 1332; Kahului, 245. Wheat, cts, Rio de Janeiro, 47,140; Hull, 122,333; Liverpool, 102,000; Dublin, 59,101; Cork, 44,575; Havre, 60,260. Barley, cts, Kahului, 593; Honolulu, 1045; Mabukona, 1234. Rolled barley, cts, Honolulu, 446; Kahului, 272. Beans, lbs, Victoria, 1788; Central America, 16,278; New York, 138,340; China, 8566. Dried fruits, lbs, Victoria, 850; Central America, 921. Wine, gals, Victoria, 388; New York, 274,908; Baltimore, 1752; Honolulu, 8542; Japan, 3018. Mustard seed, lbs, New York, 19,508. Hay, bls, Honolulu, 1005. Brandy, gals, New York, 49,347. Hops, lbs, Townville, 750. Corn, cts, Central America, 1067; Mexico, 157. Cracked corn, cts, Japan, 3014.

Domestic Produce.

Extra choice in good packages fetch an advance on top quotations, while very poor grades sell less than the lower quotations.

Table with 2 columns: Item and Price. Includes Beans and Peas, Butter, and various grades of produce.

WEDNESDAY, Feb. 11, 1891

Table with 2 columns: Item and Price. Includes Broom Corn, Choice to Extra, and various grades of produce.

CHICORY, 54 @ 6. German, 6 @ 6 1/2.

DAIRY PRODUCE, ETC. BUTTER. Cal. Poor to fair, lb 20 @ 30.

Cal. choice mild do fair to good 12 1/2 @ 13 1/2.

Cal. choice mild do fair to good 12 1/2 @ 13 1/2.

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PACIFIC COAST WEATHER FOR THE WEEK. Table with columns for various locations (Olympia, Portland, Eureka, Red Bluff, Sacramento, S. Francisco, Fresno, Keeler, Los Angeles, San Diego) and rows for weather conditions (Rain, Temp, Wind, etc.).

EXPLANATION. Cl, for clear; Cy, cloudy; Fr, fair; Cm, calm; - indicates too small to measure. Temperature wind and weather at 5 P. M. (Pacific Standard time) with amount of rainfall in the preceding 24 hours. T indicates trace of rainfall. P C, partly cloudy. Rn., rain.

Fruits and Vegetables.

Choice selected, in good packages, fetch an advance on top quotations, while very poor grades sell less than the lower quotations.

Table with 2 columns: Item and Price. Includes Bananas, Lemons, Apples, and various other fruits and vegetables.

WEDNESDAY, Feb. 11, 1891

CHICAGO, MILWAUKEE & ST. PAUL RAILWAY.

Electric-Lighted and Steam-Heated Vestibuled Trains between Omaha, Council Bluffs and Chicago.

Steam-Heated and Electric-Lighted Vestibuled Trains between Chicago, St. Paul and Minneapolis.

Finest Dining Cars in the World.

Free Reclining Chair Cars between Omaha and Chicago.

Fast Mail Line between Chicago, Milwaukee, St. Paul and Minneapolis.

Transcontinental Route between Omaha, Council Bluffs and Chicago.

5700 miles of road in Illinois, Wisconsin, Minnesota, Iowa, Missouri, South and North Dakota.

Everything First-Class.

First-Class People patronize First-Class Lines.

Ticket Agents everywhere sell Tickets over the Chicago, Milwaukee & St. Paul Railway.

W. T. ALLEN, Pacific Coast Passenger Agent, SAN FRANCISCO, CAL.

Office, No. 138 Montgomery St., under Occidental Hotel.

An Old Reader Speaks His Mind.

PUBLISHERS RURAL PRESS:—I return you most sincere and hearty thanks for all past favors in general, and for the PACIFIC RURAL PRESS in particular for the past 15 years.

I thank you for publishing so good and so moral a paper—a paper that not only makes me and mine better, but makes the whole State better.

S. P. SNOW, Fillmore, Ventura Co.

Don't Fail to Write.

Should this paper be received by any subscriber who does not want it, or beyond the time he intends to pay for it, let him not fail to write us direct to stop it.

A postal card (postage one cent only) will suffice. We will not knowingly send the paper to any one who does not wish it, but if it is continued, through the failure of the subscriber to notify us to discontinue it, or some irresponsible party requested to stop it, we shall positively demand payment for the time it is sent. LOOK CAREFULLY AT THE LABEL ON YOUR PAPER.

BEST TREE WASH.

"Greenbank" 28 degrees POWDERED CAUSTIC SODA (tests 99.8-10 per cent) recommended by the highest authorities in the State. Also Common Caustic Soda and Potash, etc., for sale by

T. W. JACKSON & CO., Manufacturers' Agents, 410 Market St. and 8 California St., S. F.

WAKELEE'S THE BEST IS THE CHEAPEST. SQUIRREL AND GOPHER EXTERMINATOR! IN 1-LB. AND 5-LB. CANS.

ANNUAL SALE OF PURE-BRED ABERDEEN POLLED-ANGUS, GALLOWAY, DEVON and DURHAM CATTLE, Property of the Estate of the late SETH COOK, of LOOK FARM, Contra Costa Co. TO BE SOLD BY ORDER OF THE EXECUTOR, AT PUBLIC AUCTION, ON THURSDAY, MARCH 5, 1891, AT 11 A. M., AT RAILROAD STABLES, Cor. Turk and Steiner Streets, San Francisco.

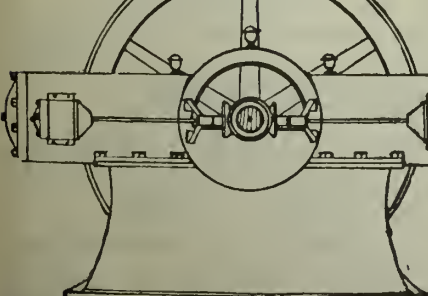
DEWEY ENGRAVING CO. THE PHOTO FACSIMILE ENGRAVING, DESIGNING AND OTHER FINE ZINCGRAPHING A SPECIALTY. 220 Market Street. SAN FRANCISCO.

WILLIAM NILES. Attention is called to the new advertisement of Mr. Niles in this issue of the RURAL.

Let Us Know If you fail to get this paper. We prefer to send missing Nos. Write soon and to the office direct. It is important that we should know when the paper miscarries.

THE JUDSON RABBIT-PROOF WIRE & PICKET FENCE.

fence colored RED by boiling in a chemical solution that preserves the wood. Address JUDSON MANUFACTURING COMPANY, 14 and 16 Fremont Street, San Francisco.



Cheaper Than Windmills for Farmers! Our Perfected "Safety" Engines Cost to Run only 1-8 Gallon of Gasoline per Horsepower per Hour. -NO- Boiler, Fire, Smoke, Steam, Ashes, or Heat. No Engineer; No License; No Danger. Pumping Plants, Yachts & Launches, Street Cars, Fire Engines, Water Works, Etc. ELECTRIC VAPOR ENGINE CO. Complete Plants of all kinds, Stationary or Mounted on Wheels. U. S. AND FOREIGN PATENTS. 218 California St., San Francisco.

CHEAPER and BETTER than Ever. Their 2-ft. high 3-cable fence has taken the trade. Farmers put barbed wire above it and have the CHEAPEST GOOD Fence that can be made in ANY WAY. Rabbits cannot get through. Hogs cannot break it and Horses or Cattle cannot get over it. All our



## Seeds, Plants, Etc.

## NAPA VALLEY NURSERIES.

ESTABLISHED 1878.

## GENERAL NURSERY STOCK.

Special attention to magnificent stock of

## Paper Shell Walnuts.

## LEONARD COATES,

NAPA, CAL.

(Proprietor Sausal Fruit Farm.)

## OLIVES!

ORDERS WILL BE RECEIVED FOR A VERY limited number of choice Italian Olive Tree Varieties:

FRANTOIO, CORREGGIOLO, } For Oil.

MORINELLO, MORCHIAIO, }  
CUCCO, }  
PALAZZUOLO, } For Eating.

These trees are original importations from Italy, all thrifty, from five to eight feet in height.

Single trees, Five Dollars each. Larger orders at reduced price. ALSO young trees (one and two years old) propagated from the above. ALSO a few trees of the Rubra and Mission varieties. Address

F. S. GOULD,  
Santa Barbara, California.

## CITRUS AND DECIDUOUS TREES,

PLANTS AND PALMS IN VARIETY AT ALOHA NURSERIES, Penryn, Placer Co., Cal.  
FRED C. MILES, Manager.

## FANCHER CREEK NURSERY,

FRESNO, CAL.

— OFFERS A LARGE ASSORTMENT OF —

## FRUIT AND ORNAMENTAL TREES.

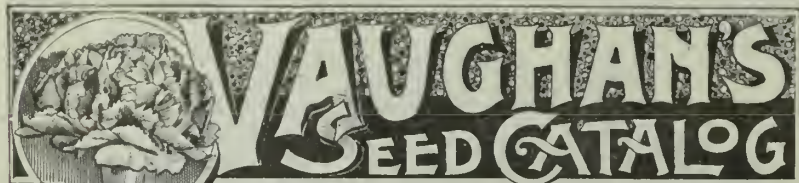
— SPECIALTIES: —

WHITE ADRIATIC FIGS. OLIVES, PLUMS AND PRUNES ON MYROBOLAN ROOT. GRAPES, PALMS, ROSES AND OLEANDERS.

## THE TRUE SMYRNA FIG, ALSO THE WILD OR CAPRI FIG.

New Descriptive Catalogue mailed free on application. Correspondence Solicited. Address

GEO. O. ROEDING, MANAGER, FRESNO, CAL.



**SEEDS** for your Garden. **PLANTS** for your Lawn.

WHERE to get the best Seeds and fresh ones? WHERE to get the new Plants and good ones? This must be decided. Which of the new and famous are worthy, and which of the old are better, you should know. We print an Illustrated Catalogue with Photo-Engravings, Colored plates, and REASONABLE descriptions. As to its completeness, we say IT TELLS THE WHOLE STORY for the GARDEN, LAWN and FARM. Free. We offer three collections of VALUE. In SEEDS, 33 kinds for \$1.00; PLANTS, 9 great Specialties, \$1.00; FLOWER SEEDS, 20 best for 60 cts.; the three for \$2.25.

**VAUGHAN'S SEED STORE, 88 State St., Box 688. CHICAGO.**

**ROSES** Seeds, Plants, Shrubs, Vines, Fruit & Ornamental Trees, Etc.

**CATALOGUE FREE.**

Over 150 pages illustrating and describing one of the largest and best assorted stocks of Seeds, Trees and Plants in the U. S. Best value for the money in our Tested Novelties and Special Low Priced Collections.

37 YEARS. 25 GREENHOUSES. 700 ACRES.

**THE STORRS & HARRISON CO.,**  
Painesville, Ohio.

OUR SPECIALTIES:  
Cultivated Wild Oats.

Red Top, Timothy, Red Clover, Kentucky Blue Grass, ALFALFA SEED, Etc.

W. H. WOOD &amp; CO., 117 to 125 J Street, SACRAMENTO.

**KANSAS SEEDS** Our Novelties: Jerusalem and Kansas King Corn, Denver Lettuce and Kansas Stock Melon.

Our Specialties: Alfalfa, Espersette, Katir Corn Cane, Millet, Seed Corn, Tree Seeds for timber claims and nurseries. Everything in the seed line. Catalogues mailed FREE on application.

**KANSAS SEED HOUSE, F. Barteldes & Co., Lawrence, Kan.**

## PACIFIC NURSERY,

Established 1871,

OFFERS FOR SALE THIS SEASON

## 100,000 OLIVE TREES.

Mission Olives, two years old, \$15 to \$18 per 100. Nevadillo Blanco Olives, two years, \$15 to \$18 per 100. Lavayino (from Genoa) Olives, two years, \$20 per 100. Picholine Olives, two years, \$6 to \$10 per 100, \$50 to \$90 per 1000.

Riparia Grapes, two years, rooted, \$15 per 1000. Blackberries, Lawson and Kittatinny, \$10 per 1000. Guavas, ready to fruit this season, \$15 per 100. French Prunes, a few thousand on hand. Price on application.

Monterey Cypress, in boxes, transplanted, \$12.50 per 1000. Monterey Cypress, balled, from \$10 to \$20 per 100.

Address F. LUDEMANN,  
Baker & Lombard Sts., San Francisco, Cal.

## PALM AND CITRUS NURSERY.

I OFFER THIS SEASON A LARGE AND SELECT stock in PALMS (50 varieties), in CITRUS—Eureka, Lemon, Washington Navel, Indian River, etc.; in OLIVES—Mission (100,000), Italian (Frantoio, Morinello, etc.) from imported trees; also the French and Spanish varieties. Large selections in PINEAPPLE and BANANAS. Also the largest collection of Tropical Fruit-Bearing Trees in the State, a few of which are: Alligator Pear, Cherimoya, Mango, Sour Sop, Sugar Apple, Star Apple, Cashew Nut, Rose Apple, Cocoa Plum, Elephant Apple, and others too numerous to name. Send for Descriptive Catalogue. KINTON STEVENS, Santa Barbara, California.

## The Best of all Cauliflowers

Is the sort now sent out for the first time, the Perfection. The Snowball, Gilt-edged and Extra-early Erfurt are all excellent sorts, but an extensive market gardener, who has raised these and all other sorts, believes that within three years the most enterprising market gardeners will have dropped these and be raising Perfection. Trial Package, 25 cts.; per oz., \$4. Seed catalogue FREE to every one.

JAMES J. H. GREGORY &amp; SON, Marblehead, Mass.

## TREES, PLANTS AND VINES

For the Season of 1890-91.

Having decided to re-establish the GENERAL NURSERY BUSINESS at Oakland, Cal., I have purchased the ENTIRE NURSERY STOCK grown by Mr. James Shinn at Niles, Cal., embracing a most complete assortment of unusually fine stock, grown without irrigation, that I am offering at reasonable prices.

All the Leading Varieties of APPLE, PEAR, CHERRY, PLUM, PRUNE, APRICOT NECTARINE and ALMOND.

Fine Stock of ORANGES, LEMONS, OLIVES, NUT TREES and FIGS.

The Only Stock of PERSIAN WALNUTS (Kaghazi) on the Pacific Coast.

300,000 GRAPE VINES (Strong Roots). Small Fruits, Berry Bushes, Etc., Etc., in Large Quantities.

ORNAMENTAL and SHADE TREES, Roses, Standard Roses, Clematis, Trailing Vines, Plants, Etc., in Great Variety.

Packing Grounds at Niles, Cal., Uneurpassed Facilities for Shipping. Correspondence solicited.

## W. P. HAMMON,

Business Office, 960 Broadway,

OAKLAND, CAL.

ESTABLISHED 1863.

## THOS. MEHERIN,

## NURSERYMAN AND SEEDSMAN.

AGENT FOR THE CALIFORNIA NURSERY CO.

Largest Stock and Most Complete Assortment of Fruit, Shade and Ornamental Trees on the Pacific Coast.  
Apple, Almonds, Pear, Plum, Prune, Apricot and Cherry.

Also Fine Stock Olives, Oranges, Lemons, Nut Trees and Small Fruits; Magnollas, Camellias, Palms; Large Stock of Roses, Clematis, Etc., Etc.

## SEEDS—SEEDS

GRASS, CLOVER, VEGETABLE, FLOWER AND TREE SEEDS, TOP ONIONS, Etc., Etc.

Catalogues Mailed Free. Address

THOS. MEHERIN, 516 BATTERY STREET, SAN FRANCISCO.

## MOUNTAIN NURSERY.

## Fine Budded Orange and Lemon Trees.

First Class, 4½ to 6 feet; Second Class, 3½ to 4½ feet.

SEEDLING TREES,  
SEED BED ORANGE PLANTS,  
LISBON LEMONS,WASHINGTON NAVELS,  
MEDITERRANEAN SWEETS,  
EUREKA LEMONS,

AND A FULL LINE OF OTHER NURSERY STOCK FOR SALE.

FOR PRICES AND TERMS ADDRESS THE PROPRIETOR,

T. S. INGHAM, San Bernardino,

## Seeds,

## COX'S SEED CATALOGUE MAILED FREE.

It contains description and price of Grass, Clover and Field SEEDS, Australian Tree and Shrub SEEDS, Native California Tree, Shrub and Flower SEEDS (the largest assortment of Vegetable and Flower SEEDS, offered in the United States), new varieties of Forage Plants, Grasses and Clovers especially recommended for the Pacific Coast. Holland, Japan and California Bulbs. Large Assortment of Palm SEEDS, new and rare Plants, new Fruit. Our stock of Fruit Trees consists of the best varieties of Prune, Plum, Apricot, Apple, Peach, Cherry, Olive, Fig and Nut Trees, Grape Vines and small Fruits. Address

## THOS. A. COX &amp; CO.

SEEDSMEN,

411, 413 &amp; 415 Sansome St., San Francisco, Cal.

TRUMBULL & BEEBE'S NURSERIES,  
Alameda and San Rafael.

THE ATTENTION OF PLANTERS IS INVITED TO OUR COMPLETE STOCK OF

Almonds, Apples, Apricots, Cherries, Figs, Peaches, Pears, Plums, Prunes, Quinces, Chestnuts, Walnuts, Persimmons, Pomegranates, Olives, Oranges, Lemons, Limes, in Full Assortment; Berry Bushes and Plants; Ornamental Trees and Shrubbery, Roses, in Large Assortment, &amp;c., &amp;c.

Our Stock has been carefully and well grown, WITHOUT IRRIGATION, FREE FROM INSECTS, and is UNSURPASSED IN QUALITY. PRICES MODERATE. CORRESPONDENCE SOLICITED. Catalogues on application.

## TRUMBULL &amp; BEEBE,

NURSERY AND SEEDSMEN,

419 &amp; 421 SANSOME STREET, SAN FRANCISCO.

E. C. CLOWES,  
STOCKTON NURSERIES.

500,000 ROOTED MUSCAT VINES

Can be Delivered from Fresno or Stockton.  
Special Prices on Lots of 50,000 or more.White Adriatic and San Pedro Figs  
UMBRELLAS.A Full Line of Fruit and Ornamental Trees, Shrubs, Vines, Palms, Roses & Small Fruits  
ESTABLISHED 1853. WRITE FOR CATALOGUE AND PRICE LIST.

Stockton, - - - - - California.



Seeds, Plants, Etc.

Established 1853.

NORTHERN GROWN  
SEEDS

J. P. Sweeney & Co.

DEALERS IN

GARDEN, FARM AND TREE  
SEEDS,

ALFALFA AND ALL KINDS OF OTHER  
GRASSES AND CLOVER,  
TOP ONIONS, SEED POTATOES, ETC.

409-411 Davis Street, San Francisco, Cal.  
(Send for Catalogue.)

MODEL NURSERY.

500,000 FRUIT TREES.

Apple, Pear, Plum, Cherry, Peach, Apricot,  
Nectarine, Quince, Grape Vines  
and Small Fruits.

Orange, Lemon, Lime, Olive, Japan Per-  
simmon, and all kinds of Nut-Bear-  
ing Trees. Shade and Orna-  
mental Trees, Shrubs, Etc.

100,000 BARTLETT PEAR TREES.

Ask for Prices.

James T. Bogue, Marysville, Cal.

ONE MOMENT, PLEASE.



The rush for our New Catalogue for 1891 (quarto, 56 pages, 60 illustrations) is unprecedented. We want to say right here:—

Every one shall have their copy. Do not be impatient. There are thousands waiting, but we are now so re-enforced in our mailing department that we can send out 6,000 each day. An edition of 85,000 is now in press.

Remember, this is the best Catalogue of *Vegetable Seeds* in this country, and one of the best for *Flower Seeds*. One copy is sent to any address, free of cost. In ordering from it, you are sure of


All the latest novelties.  
An immense variety.  
Seeds direct from the grower.

When you buy seeds, be careful of whom you purchase. Our record of thirty years in the seed business is a guarantee of our reliability.

JAMES J. H. GREGORY & SON,  
Marblehead, Mass.

Thompson's  
SEEDLESS GRAPE ROOTS.  
These Grapes make the finest seedless raisins known.  
For sale by J. P. ONSTOTT, Yuba City, Cal.

HEADQUARTERS FOR WHITE ADRIATIC FIGS.



—THE—

Largest Stock of Trees  
in the State.

The Only Fig that should  
be planted for Drying.

ALSO A LARGE STOCK  
OF OTHER TREES:

Apples,  
Pears,  
Peaches,  
Plums,  
Prunes,  
Apricots,  
CHERRIES, NECTARINES,  
Olives,  
Oranges,  
Lemons,  
Shade Trees and Orna-  
mental Shrubs,  
GREENHOUSE PLANTS,  
ROSES, ETC.

A complete assortment of Rooted  
Grapes and Cuttings All trees  
warranted free from Scale or Aphis.

Catalogue free..

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FRESNO, CAL.  
BOX 175.

CALIFORNIA NURSERY CO.,



NILES, ALAMEDA COUNTY,  
CALIFORNIA.

Fruit Trees,  
Nut Trees,  
WINE, RAISIN and TABLE  
GRAPES,  
SEMI-TROPICAL FRUITS, OLIVES  
ORANGE AND LEMON TREES,  
Shade Trees, Evergreens, Shrubs, Roses, Climbing Plants, Etc.

Send for Our New  
Catalogue.

CALIFORNIA NURSERY CO.,  
NILES, ALAMEDA CO.,  
JOHN ROCK, Mgr.

SELLING OFF

ON ACCOUNT OF REMOVAL.

Having sold my Depot, corner 14th and Washington Streets, I offer for sale at greatly  
Reduced Prices my Entire Stock of

TREES, PLANTS & SHRUBBERY,


Suitable for the Conservatory, for Parlor Windows, for the Flower Garden, for the  
Lawn, for Vases, for Rockeries, for Hanging Baskets, for Ribboning, for Hedges, for  
Arbors and for Shade Trees. Catalogues Free on application.

JAMES HUTCHISON,  
Oakland, Cal.

SALZER'S NORTHERN  
CROWN  
SEEDS

ARE THE BEST  
FOR ALL SOILS  
AND CLIMES.

They will yield for you, OATS 135 bu., WHEAT 40 bu.,  
BARLEY 60 bu., CORN 100 bu. POTATOES 500 bu. per a.  
Send 8 cents for sample farm seeds and catalogue.  
Send 6c. for pkg. "Acme Radish" and elegant catlg.  
Our Catalog is the finest ever published in America.  
On Trial:—35 pkgs. Earliest Vegetable Seeds, post pd. \$1.  
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Low Freight to Pacific Coast States.



JOHN A. SALZER, LA CROSSE, WISCONSIN.

FIELD AND GARDEN SEEDS

OUR ILLUSTRATED CATALOGUE SENT FREE.

Send 4c. in stamps and we will send a packet of the great novelty, THE PERSIAN  
MONARCH MUSKMELON, the finest flavored melon grown.

Box B.

BOUK & HUPERT, Greenwood, Neb.  
(Mention this paper.)

JOHN S. CALKINS'  
NURSERIES,

POMONA, LOS ANGELES CO.,  
CALIFORNIA.

OLIVE TREES, 4 to 5½ FEET HIGH,  
SOFT-SHELL WALNUT,  
GUAVA,  
ORNAMENTAL TREES, SHRUBS, Etc.

Write for General Price List.

GRAPE CUTTINGS

Of the following varieties for sale in lots to suit:

Cinsant, France.  
Malbec (Cote de Bordeaux Medoc Gironde, France.  
Sauvignon Blanc, France.  
Cinsant (Midi), France.  
Petit Bouchet Midi Montpelier, France.  
Carbenel Medoc Gironde, France.  
Dramon, France.  
Lagrein, France.  
Pedro Ximinez Lopez de Carveral, Spain.  
Pala Mino, Spain.  
Palomero, Spain.

They are all Choice Wine Grapes. Prices on ap-  
plication. Terms, Cash with Order. Delivered Boxed  
at depot at Folsom.

F. M. MURCH, Folsom, Cal.  
P. O. Box 96.

PICHOINE OLIVES  
FOR SALE

IN 1000 LOTS AS FOLLOWS:

12 to 20 Inches.....\$40 per 1000  
20 to 30 " ".....\$60 per "  
30 to 48 " ".....\$75 per "  
California Fan Palms, 4 to 6 ft. high, \$2.

BELL CONSERVATORY CO.,  
SACRAMENTO, CAL.

SANTA ROSA NURSERIES,

R. W. BELL, Proprietor,  
(Successor to L. Burbank).

Still a Fair Quantity of PRUNES, though  
Selling Fast.

A Superb Lot of Bartlett's and Apples  
(on Whole Roots),  
Cherries, Olives, Walnuts, Shade Trees,  
Table and Raisin Grapes, &c., &c.

SEEDS

ALFALFA, GRASSES, Every Kind, CLOVER, VEGE-  
TABLE, and SEEDS of Every Variety.

B. F. WELLINGTON,  
Seeds and Improved Egg Food,  
425 WASHINGTON STREET, SAN FRANCISCO.









Vol. XLI.—No. 8.      SAN FRANCISCO, SATURDAY, FEBRUARY 21, 1891.      { DEWEY & CO., Publishers,  
Office, 220 Market St.



VIEWS IN THE UPPER SAN JOAQUIN REGION—THE PORTERVILLE VALLEY ILLUSTRATED.

### Another Glance at the Upper San Joaquin Valley.

We present on this page another artistic grouping of views suggesting the progress and development of the upper regions of the San Joaquin valley. In our issue of January 31st the same theme was presented in connection with a different group of views, and it was then remarked that probably no area of the State can show more signs of advancement and development than the counties lying at the southern end of the San Joaquin valley. It is a region of vast plains irrigable by streams and artesian outflows, of moist meadows and of benches and foothill slopes and many small, rich valleys tributary to the great valley, while surrounding all is the rim of lofty mountains forest-clad and snow-crowned, from which flow inexhaustible supplies of pure water for the refreshment of the lowlands. It is a region of great picturequeness and of vast industrial resources, which are now beginning to be adequately appreciated, and as a result, popu-

lation and capital are pouring in seeking profitable opportunity and investment, and the result is the development to which we have alluded. The pictures show the achievements in a single region of the great upper valley which is known as Porterville valley, in which enterprise is now being especially manifested. Enough has been done in planting to show already the rewards of the grower, and enough in town building to demonstrate the progressive character of the people and the business resources of the country. In this view, the artist has thrown the vine first upon his plate as expressive of the fact that the grape is an important factor in the fruit future of the valley. In the center of the picture are the thrifty orange trees of Mr. Oliver Henry, who began planting at Porterville five years ago, and whose trees in this short time have shown the fitness of their surroundings by a wonderful growth and by early bearing—as the fruit is shown thickly clustered on the trees. Above the orange trees is the California fan palm, with two gems of the

valley in the foreground. In the upper left-hand corner is a view of the outskirts of Porterville, showing the grand native oaks. On the right center is an irrigation ditch, the water flowing softly through the rank vegetation which the touch of water brings bounding forth from the rich valley soil. The lowest sketch is a park-like scene, in which the eucalyptus appears towering skyward far above the rounded domes which the native oaks spread to the sunshine. All the pictures are characteristically Californian, and while showing actual scenes in one region of the State, are widely significant as reflecting the enchantments and delights which our favored State offers those who make homes within its borders. INTEROCEANIC CANAL.—Hon. Warner Miller, president of the Nicaragua Canal Construction Company, has telegraphed his acceptance of the invitation recently extended by various business and scientific organizations to visit this city at an early date and deliver a public address upon the Interoceanic Canal.

### The Southern Citrus Fair.

Preparations for the citrus fair to open in Los Angeles on March 3d are progressing favorably. The various localities in the southern half of the State are organizing and securing material for the grand competitive displays which will be made. The region embraced in the exhibition is a large one, viz: the Sixth Congressional District, which includes the following counties: Alpine, Fresno, Inyo, Kern, Los Angeles, Mono, Monterey, San Benito, San Bernardino, San Diego, San Luis Obispo, Santa Barbara, Tulare, Ventura. Thus, though the grand citrus-fruits counties south of the Tehachapi mountains will contribute most of the display, the citrus localities in the other counties should not fail to show what they can do. According to the announcement of the committee, which we recently printed, it is resolved that for style of exhibition, as well as for wealth of material, the fair shall be second to none of the grand series of citrus fairs already held in California.



## THE STOCK YARD.

## "The Block Test."

EDITORS PRESS:—The *Agricultural Gazette* of Jan. 12th gives, in tabulated form, the per cent of dressed carcasses to live weight of cattle slaughtered from the Smithfield Club show of 1890.

In this show there are no premiums offered for dressed carcasses of either beef, mutton or pork, as at Chicago, which is to be regretted, consequently, the whole of the returns depends on the courtesy of the butchers who buy and slaughter the show cattle. Let us hope that the managers of the English fat-stock shows will, before another year, wake up to the advantages of offering prizes for a class or classes of best carcasses of dressed meat, also for animals dressing greatest per cent of meat to live weight, which together afford interesting proof of profitable feeding. As it is at present, no really fair comparison can be made between the English and American fat cattle.

The returns, as any one is best able to obtain them at present, show a slight advantage in favor of the 74 head of English cattle in which the per cent of dressed beef to live weight varies all the way from 58.79 to 73.72, while the 17 dressed carcass prize animals at Chicago varied from 62 to 68 per cent of dressed carcasses to live weight.

In the 74 English cattle, only seven go below 62 per cent and only three of these below 60, while 23 animals dress over 68 per cent and ten of them over 70. Mr. G. T. Turner, in commenting on the subject of the table in the *Agricultural Gazette*, says:

The highest percentage of carcass to live weight is 73.72, attained by Mr. H. P. Green's Red Polled ox, winner of breed cup; last year it was 76.52 in respect of Mr. S. Utting's Shorthorn ox; and in 1888 it was 74.77 in respect of Mr. Alfred Agate's Sussex steer.

This in no respect affords a fair comparison of breeds as to their results on the block, because the numbers slaughtered are not the same, nor are the ages the same. But it may be permitted to call attention to the fact that Major Kirkpatrick's Young Careless steer was the heaviest in its class, and that its dam was by Stella's Oxford, a bull which was noticed to have got all the heaviest Sussex cattle at the 1888 show. Here, then, is an item which proves the worth of those fat-stock shows to breeders. Mr. John Cridlan's cup Shorthorn steer (best ox or steer) Chancellor made 71.85 per cent net to gross; a crossbred from Sandringham made 71.53; Mr. John Cridlan's breed cup (cross-bred heifer Queen of Scots) heifer 72.56; and Lord Coventry's Hereford cow Rosewater 72.43. These are among the highest percentages, and the cattle were among the winners of highest honors, as it should be.

By this it appears that no animal was slaughtered in 1890 equal to the Shorthorn ox of 1889 nor the Sussex steer of 1888.

There were other fat stock shows in England in which the Shorthorn blood in the prize animals was predominant, but, without going further into details, enough facts have been set forth to show that the Shorthorn was the winning beef breed for the year 1890.

Another year some other breed may come to the front; time alone will prove this. In the meantime, let us hope that those who are in a position to do so will use their best efforts to maintain the present position of the Shorthorn, not only for the honor that comes of winning prizes, but for the sake of the breed—the breed whose merits I have been upholding in this State (since 30 years ago this very day, when, on Feb. 11, 1861, I landed two Shorthorn bulls and three heifers from the old St. Louis), ever contending that there are more useful qualities combined in that one breed than in any other for the production of both milk and beef and for general usefulness on farms of mixed husbandry, so that the name Cosmopolitan which is sometimes applied to it is no misnomer.

If I have endeavored, to the best of my ability, under the circumstances in which I am placed, to champion the breed of cattle among which I have been all my life, I can truthfully say that I have not done it to the disparagement of any other breed. No one breed is best for all places and situations, nor under all circumstances. There is even a great difference in cattle of the same breed, in constitution and hardiness, in temperament and thrift, in making beef or the giving of milk; all are different in some one respect, so that they cannot do equally well when placed under equal conditions of treatment, climate, land, altitude and temperature, all of which have to be taken into consideration in the breeding and rearing of cattle, and, last but not least, the market to be supplied will be a guide to the kind to breed. If we have most customers for the increase of our herds from among dairymen, then we must breed cattle that are profitable in the dairy; but if we must sell to those who are raising beef cattle, then we will be guided accordingly.

In any case, our aim must ever be to breed healthy, growthy animals with strong constitutions, and in no case should we try how little food they will keep alive on. That experiment is sadly too much tried already, though it is long past the experimental stage.

I will now give a few facts as taken from the English papers, on

The London Dairy Show, which, though held before any of the fat-stock shows of 1890, and not being written of in the *Press* at the proper time, I have left to the last, thinking that the rib roasts are more naturally thought of about Christmas-time than the

milk, the cream and the butter, which are also now more in their season in this State. For profitable production in a cold climate or even in the experience we are now having with short pastures and high-priced feed, it requires as much if not more skill and attention to details than the getting up of a heast for a fat-stock show.

I know there are many people who regard the Shorthorn breed of cattle as a beef breed only, but those of us who have bred and used them as dairy cattle, know that when properly handled, they will produce a full average quantity of both milk and butter.

There are some breeds that give richer milk but less of it, and others that give more than the Shorthorn, but not so rich in solids.

The cow that is most profitable to keep in a dairy is the one, regardless of breed, that produces the greatest weight of solids per day. It used to be thought that the cow giving the most milk was most profitable, but people have found out that there is a difference in quality as well as quantity. There is probably no one agency in existence that has done more in calling the attention of the public to this fact than the London Dairy Show, which has for several years been testing the milk of the cows exhibited, both by weight and analysis, which results in showing the actual weight of the different solids produced by each animal in a day.

The following table (from the *Agricultural Gazette*) gives the results in compact form of what the first prize animal of each breed did at the show of 1890:

First Prize Cows.	Weight of Fat yielded in one day.	Weight of Casein, etc. yielded.
	Lbs.	Lbs.
Shorthorn.....	3.26	5.17
Jersey.....	1.89	3.06
Guernsey.....	2.00	4.40
Avshire.....	1.87	3.97
Dutch.....	1.85	3.87
Dexter Kerry.....	1.32	2.40
Red Poll.....	1.14	2.58

By the above it will be seen that the Shorthorn cow has the biggest yield of both weight of fat and casein, etc. The Guernsey cow is next, in both yields, to the Shorthorn. Both these cows had recently calved at the time of the show, therefore the milk was not so rich in solids as it would be likely to have been had they calved two or three months previously, while the quantity of milk given by them might have been about the same.

The Jersey calved 110 days, the Dutch cow 251, the Avshire 21, the Red Poll 89, and the Dexter Kerry 75 days before the show.

The prizes are awarded according to the number of points made by each cow, and the points are counted thus: One point for every 10 days since calving after the first 20 days; 1 point for each pound of milk per day; 20 points for each pound of fat per day and 4 points for each pound of solids other than fat. When the milk contains less than three per cent of fat, ten points are deducted. For instance, the third prize Shorthorn cow has the following number of points: For time since calving, 98 days, 17.8; pounds of milk, 58.7; weight of fat, 40.8; other solids, 20; total, 127.3, which would have entitled her to the champion prize, but as her milk contained less than three per cent of fat, the points to her credit were reduced to 117, or 4 points less than the best cow and a fraction less (.9) than the 2d prize Shorthorn, but still 1.5 more than the next best cow in number of points, the Dutch, which made 115.5, the prize Guernsey having 108.1; but her milk also containing less than three per cent of fat, she had only 98.1 to her credit, leaving the 1st, 2d and 3d prize Shorthorn cows with more points each than any other cow of any breed in the show.

Most of us know that by adopting certain methods of feeding milch cows the quantity of milk can be increased at the expense of quality, and it is no doubt with this fact in view that the ten points are deducted when the milk contains less than three per cent of fat, otherwise the cows might be trained and fed so that they would be little else than mere milk machines. Not only that, but when fed for milking trials at shows, or for the so-called "tests," whether public or private, the quantity and cost of feed consumed is so high that the milk or butter is often produced at an absolute loss, however large the quantity, so that such experiments are of very little use, practically, to the general dairyman, any more than are the artistic productions exhibited at the Fat-Stock Shows. One thing, however, the latter teach in a very impressive manner, and which, perhaps, I did not sufficiently emphasize at the proper place, whether necessary or not; the figures given show for themselves that the first year's growth of beef costs less than that of the second year in the life of an animal, and the second less than the third year, and so on through life, so that the younger an animal is when he becomes fit for the butcher, the more profit he is likely to leave to the feeder.

ROBERT ASHBURNER.  
Baden Station, San Mateo Co

## POULTRY YARD.

## Eggs During the Fall and Winter.

EDITORS PRESS:—It is probable that most varieties of hens, when well-fed and cared for, will lay something near the same number of eggs in a year. But in a country like this, where the price varies from 15 cents per dozen in the spring, being even a drug at that low figure, to 50 cents per dozen in the fall, there

being a good demand for them at that price, and the surrounding mountain towns offering a ready market for them at 60 cents per dozen for some weeks in the late fall and early winter, the question naturally arises, how can we secure a good supply of eggs when prices are high? The various methods of preserving them having at best met with but partial success, it is well for farmers or housewives who have the care of poultry to look well to the matter of securing fresh eggs in the fall, which result may usually be attained by any one who gives his poultry the proper attention, and who keeps the end to be attained in his mind in intelligently caring for them.

Being frequently questioned as to our success in having fresh eggs in the fall and winter, some items in regard to the same may not be amiss in the columns of the *RURAL*, the scarcity of eggs at that season being general on farms. If they are desired in the fall, the matter must receive attention in the spring. Early chickens are generally stronger than those hatched later in the season. If the spring is usually early in this region, chickens may be hatched by the middle of March and will make fine large pullets before the warm days of summer, which are hard on fowls, and will be ready to begin to lay, if well cared for, before the cold weather in autumn, and with continued proper care will lay through the fall and winter. In setting eggs, the largest and smoothest should be selected and each hen should be set in a fresh, clean box filled with new straw, and not in a nest previously used for laying and probably infested with vermin. No one ought to feel obliged to spend time trying to raise poultry without some few conveniences for it. A separate room for setting hens is a necessity, by which arrangement they need not be disturbed and the eggs shaken and broken by other hens laying in the nest. The setting-room should be well ventilated and kept clean. It should be constantly supplied with wheat, clean water and a box of fresh earth for the hens to dust themselves in. In the afternoon, when the hens are through laying for the day, the door of the setting-room may be opened for the setting hens to have a little exercise.

They will, if they leave their nest, usually return without trouble. In raising chickens early in the spring it is well to keep the hen confined in a coop longer than in warmer weather, so that she will have her chickens more and protect them from the cold winds. The hen can stand a week or two of confinement in a coop, if well-fed; and good care for the first few days of the life of the little chick is necessary for its future growth and healthfulness.

For good results in feeding nothing seems to give better satisfaction than cornmeal not made too wet; a little red pepper added occasionally in cool weather seems beneficial. If we expect our early chickens to lay well during the fall, there should never be a time when they are not well fed. To give a growing chicken a poor start, to expect it to "rustle" for itself, or subsist on a diet of sour milk for two or three or more months, and then to give us a good supply of eggs during the season of high prices, is preposterous.

One reason which may cause many a farmer's wife to fall of eggs in the fall is, being dependent on her poultry for many household necessities, the temptation is strong to dispose of the early pullets during the first summer months, when the demand is good and prices high. But no matter what the household need is, if one desires eggs through the fall and winter, the best way is to keep the early pullets. The pullets hatched later may bring less when put upon the market, but were we to keep them, if too young to lay in the fall, we could not expect them to begin laying during our cold winters. Therefore a pullet which is hatched from the last of May to the last of June or later will not be old enough to lay before the weather grows cool; consequently we can hardly expect them to be of any use before they are nine months old. We have had chickens hatched in the early part of March begin to lay at four and one-half months and continue during the whole of one of our most severe winters. Were it profitable to pay little attention to our fowls and allow the pullets to be pensioners on our bounty, contributing nothing to our household larder or purse until they were eight or nine months old, instead of "lending their kindest service" to help along at a little more than half that age, we might keep old hens for fall laying, but as the number of eggs decreases materially as a hen advances in age, and considerable time in early fall is required for the molting season by older hens, in which young strong pullets kept purposely for home use might be laying, to sell all hens at from 18 to 20 months, and select the best of the early pullets to take their places, is attended with good results. To keep fowls laying through the fall and winter after they have begun in the late summer requires both attention and labor.

Chickens as well as ourselves desire a variety of food. They devour table scraps with avidity; also curd made from sour milk seems to be enjoyed occasionally. Cabbage and onions (not the outside leaves but the eatable portion), chopped in a chopping-bowl, are usually eaten greedily by fowls during the fall and winter when they can get nothing green at which to peck. All gravies or liquors in which meat has been boiled, mixed with wheat bran, are appetizing food for chickens.

Besides the things mentioned, fowls need a continual supply of grain. Wheat or barley

boiled and given warm is good of cold mornings, in which it is well to add a little red pepper or sulphur occasionally. When in homes remote from towns, beef and pork are supplied for table use by butchering done on the farm, the liver, lights, or any part of the animal which can be cooked, which is not needed for table use, should be boiled and chopped for the fowls. This means work for the housewife, but she will receive her own again with nury in the increased number of eggs the hens will lay. The meat might be fed raw, but the result would be much of it would be wasted by being dragged in the dirt so that it could not be eaten, while by boiling, chopping and feeding in clean troughs or pans, the fowls get the whole benefit of it. Chickens need burnt bones. Lime alone does not take the place of bones. A few bones occasionally burnt in the cook-stove are not all that is needed, but a generous supply burnt frequently in the yard, where the chickens can pick among them at pleasure. One of the most important things to be kept continually before the mind in poultry-raising is cleanliness—cleanliness in feeding, in providing fresh nests, and in the frequent cleaning of chicken-houses. It is not a matter of surprise that fowls do not lay better, but that, considering the care they receive on many farms, they do as well as they do.

Beckwith, Plumas Co.

M. P. ARMS.

## ENTOMOLOGICAL

## Cabbages Without Lice.

EDITORS PRESS:—In your last issue of the *RURAL*, N. Flanagan wishes to know "What will eradicate cabbage lice." Allow me to say that I have tried almost everything to exterminate them by using both cold and hot water, ashes, lime, soot, coal oil, hushack, tobacco dust, etc., but owing to the fact that many of them are under the leaves where the application does not reach them, enough generally survive to nearly, if not quite, destroy the plants. It is an old saying, and a true one, that "an ounce of prevention is worth a pound of cure," and it applies very forcibly to the case in hand. It is a well-known fact that lice of different kinds almost invariably attack everything first, either in the vegetable or animal kingdom, that has a stunted, dwarfed or scrubby growth. Therefore, if you want your chickens, calves, pigs, etc., to be free from these detestable pests, keep your stock growing. The same applies to cabbage as well as other kinds of vegetables. If I want very early cabbage, I sow the seed here early in September, in a very rich seed-bed elevated a foot or more above the general service of the ground, keeping the soil moist, but not wet, by frequent applications of water that has been made warm by standing in the sun. Later in the season, I warm it on the stove. When the plants are two or three inches high, I transplant a part of them into another bed, leaving them in both beds four or five inches apart. By the time the first frost comes, generally early in October, I have very strong, stocky plants from six to eight inches high. I keep them protected by a temporary roof during the coldest nights, as well as in very violent, cold rainstorms. Plants treated in this manner are very hardy, but will not make scarcely any growth (here) during the months of November, December and January, but early in February are ready to be transplanted to the open field, where they will make a rapid growth. Do not be afraid of making the soil too rich, and be sure to give them plenty of water in some way, in absence of rain. Cultivate often, and the result will be very fine cabbage and no lice.

## Cabbage Culture.

In my article on "Cauliflower and Cabbage," written for your paper in January, 1890, I entered into minute details in relation to raising early plants by preparing a warm bed early in February, etc., and therefore it is of course not necessary for me to repeat what was then written. I neglected, however, in my haste while preparing said article, to state that fine plants could be raised very easily and successfully by planting the seed in September, as above stated. However, if the season should prove to be as dry as the present one, thus far, a great deal of labor would be avoided by planting the seed in February. I have always found by many years of experience that it is not advisable to depend altogether on one seed-bed for any one particular kind of seed, or plant, as "accidents will happen," and consequently I invariably make at least two or three sowings at different intervals. In this manner I always succeed in having plenty of nice plants for my own use, and if all the beds do well, I can always dispose of my surplus plants to those who will not take the pains necessary to raise them. I also neglected to state what I used on the young plants to destroy insects of different kinds that are often very troublesome and destructive; therefore I have mentioned this also in the foregoing, in answer to your correspondent who made inquiries on the subject.

In such a remarkably dry winter as the present one, accompanied more or less with strong north winds, especially at night, great care must be taken to see that your seed-beds do not get too dry, as they will often dry up so badly in one night as to almost destroy the healthy growth of the young plants. It is always best, therefore, to cover the beds at night; by so doing you are sure to be on the safe side. For second early cabbage, I generally raise up a bed



in the open field the size required, making it a foot or more above the general level. On this I burn a small pile of brush early in February, and after mixing the ashes thoroughly with the soil to the depth of two or three inches, sow the seed and rake them well in. If the weather is propitious, I seldom fail to get the very best of plants with but very little trouble and perfectly free from insects of any kinds.

I have also found in over thirty-nine years of California life, that owing to the great diversity of seasons, the methods that prove best for either gardening or farming in one season may not be advisable for the next, and therefore one must be continually on the lookout, as well as very observing, and be governed altogether by the circumstances that surround him. For instance, last February, I had great trouble to find a small piece of ground that was dry enough to set out my cabbage and cauliflower plants, that owing to the excessive moisture, had grown very rapidly and were actually suffering for the want of being transplanted. This month, I cannot find a piece of ground moist enough to justify me in setting out my young plants, unless I resort to irrigation, and as yet I have no facilities for that, other than hand-pumping, and that will not pay for cabbage, although it will for my twenty-two blackberry vines when they need it. I am consequently more than ever convinced that it is the best of economy in the end to provide some plan for irrigation, at least in a small way, so that in an unusually dry season as the present one has proved thus far, vegetables of many kinds can be successfully raised, and thereby save a large amount in the grocery bill, as well as to keep your wife in good humor.

IRA W. ADAMS

Bay State Garden, Calistoga, Cal., Feb. 9, 1891.

## TEXTILE INDUSTRIES.

### The Production of Ramie.

University Experiment Station Bulletin No. 90.

The revival of interest in the culture of ramie that has followed the announcement of the apparently successful tests, made of a new decorticating machine at the late Mechanics' Fair, renders it desirable to review some of the main points of this industry as bearing upon its adaptation to California. The great beauty of the fiber and the almost unlimited commercial demand for it when brought into the market in available form; its adaptation to a great variety of soils and climates, the high production, the perennial nature of the plant that renders its culture very inexpensive; last, but not least, the possibility of easily maintaining the productiveness of the soil by a return of the "trash," placing ramie near to cotton (when the seed is returned) as bearing very lightly on the soil's native fertility; and finally the relatively high value and light weight of the merchantable product when shipped—all these advantages concur in rendering the culture of this fiber plant specially desirable wherever it is feasible. That it has not become more widely spread, and has not largely superseded the much more costly and exhaustive culture of flax, is mainly due to the difficulty of accomplishing the separation and cleaning of the fiber by a machine sufficiently effective to compete with the scraping by cheap hand labor, which in the Orient is the habitual and the only mode of supplying to commerce the "China grass" fiber.

This difficulty arises from the presence in the bark of a tough gummy substance that encases the fiber, and from which it must be thoroughly freed by either mechanical or chemical processes, or by both combined, before it can be worked.

Two essentially different plans have been pursued in the effort to accomplish this. One is the "wet" process, in which (as in the Orient) the green stalk is operated upon, requiring appliances somewhat distinct from those used in the preparation of hemp or flax fiber; while in the "dry" process, the mechanical operations are substantially the same in kind as the case of our familiar fiber plants, but modified to suit a specially difficult case. In either mode, the mechanical treatment has to be followed by a more or less intense chemical one, for the removal of the last remaining greenish gum from the silky fiber before the latter is ready for the spinning machine. The latter, in view of the great length of the ramie fiber, should be of the kind adapted for "line" spinning; but of course it is quite feasible to convert the fiber into a tow or short-length material resembling long-staple cotton. Some of the older machines have done this; and if, as is now stated, such material can find purchasers among the workers in wool and cotton at remunerative prices, there is little difficulty about its production in large quantities. But one of the merits of the ramie fiber—its resemblance to silk—is thus grievously impaired, and it may be fairly said that no machine or process that does not produce the fiber in a condition for line-spinning can claim to have solved the problem of making ramie as profitable a crop as it can be.

The "wet" processes seem to have had the best success in the countries whose climatic conditions involve a perennially moist atmosphere, and where a thorough drying of the stems is therefore difficult. The principle upon which the work is done is, in general, the breaking of the more or less brittle and

"brash" stems, fresh from the field and stripped of their leaves, by means of a suitable modification of the ordinary breaking process as applied to dry stems of hemp, etc. The stemless but undecorticated fiber, usually rolled into bands for the better preservation of its parallelism, is then dried, partially or wholly by artificial heat, so as to render the gum and bark brittle enough to be removed by subsequent beating and combing.

Sometimes this mechanical after-treatment has been omitted and the stemless crude fiber passed directly into the alkaline bath (mostly of common or of caustic soda), which is always required to remove the last of the gummy matter, but a too prolonged action of which will impair the strength of the fiber. The latter is then ready for a final combing and for spinning with or without preliminary bleaching.

The "dry" process differs from the "wet" in that the stalks, cut at the time when their oldest portion is just turning color from green to a brownish tint, are first allowed to dry in the field if this can be done, and when fully dry are at once subjected to the action of breaking, and of beating or combing machines that remove stalk and bark with gum in proportion to their perfection, leaving, again, the crude fiber more or less ready for the alkaline bath, as in the wet process.

It will readily be understood that the dry mode of working is best adapted to a dry climate, in which the stalks and gummy bark become so brittle that the breaking and beating is effective to a degree, which it would be impossible to attain in moist climates like those of Louisiana or Guatemala except by artificial heat, which, as stated, is therefore generally used in connection with the wet process. Hence the dry mode of working promises exceptional advantages where, as in the interior of this State, the dryness of the summer air is proverbial. The dry process also possesses the advantage that each machine can be kept running continuously, on practically uniform material; while in the wet mode of treatment the plants must, in a large field, either be worked at very different degrees of maturity or else the crop must be attacked with a large number of machines, in order to secure uniformity of the product; after which the machines will lie idle. It would therefore seem, on the most general principles, that where the dry process is climatically feasible, it offers advantages over the other method, provided an equally good merchantable product can be turned out.

Without discussing the merits of the different machines now offered to producers as a guarantee that their crop when grown will be convertible into a merchantable article, and of which I personally am not at present fully informed, it should be said as regards the culture of ramie, that by actual trial it has been found to be readily feasible in all the larger valley regions of the State, so far as the successful growth of the plant is concerned, but that it will doubtless prove most profitable where a long growing-season, combined with irrigation, permits of making three or four cuts annually. In the Kern valley there is little difficulty in getting four cuts of good size and quality, and the same is probably true on the stronger soils as far north as Fresno, and southward in the valley of South California. In the Sacramento valley, three cuts can doubtless be obtained, at least when irrigation is employed, or in naturally moist land. At Berkeley and elsewhere on the immediate coast, two cuts (the second usually a small one) is all that can be counted on; but in warm valleys of the Coast Range doubtless from two to three full crops, according to the supply of moisture and the strength of the soil, may be looked for.

The following table shows the record of crops of the white-leaved ramie (*Urtica nivea*) harvested during four years on the Berkeley experimental grounds, the last of seven. No manure was used on the plot, but it was re-set in 1888 in order to equalize the stand which had been impaired by the distribution of roots; hence doubtless the low production in that year, and a later cut. The size of the plots of which the record is here given is 18x34 feet, or about one-fifth of an acre. The green plants were weighed with the leaves, which are estimated at about one-half of the "live weight." The dry stalks were weighed practically leafless.

RESULTS OF EXPERIMENTAL CULTURE OF RAMIE ON THE UNIVERSITY GROUNDS, BERKELEY.

FIRST CROP.				
Date of Cutting.	Plot.	Yield, lbs.	Yield per acre.	Percentage Dry to Green.
1887—June 24	1	576½ green	25835.7	
1888—July 16	1	491 green 135½ dry	22004.0 6072.4	27.6
1889	1	624 green 133 dry	28616.0 6095.2	21.3
1890—July 9	1	763 green 122 dry	34194.0 5471.0	16.0
1890—July 9	2	623½ green 117 dry	27942.0 5283.1	18.8
SECOND CROP.				
1887—Oct. 31		174 green	7797.8	
1890—Nov. 21	1	210 green 74 dry	9411.1 3312.7	35.2
1890—Nov. 21	2	210 green 74 dry	9411.1 3312.7	35.2

Assuming for the years during which the observations of the product were (on account of frequent calls for samples) not as full as during the last, the same average ratio as to the weight of the two crops and the percentage of dry stalks yielded, we find that the product has

been at an average rate of about 5700 pounds of dry stalks per acre for the first cut and about 3300 pounds for the second. This gross weight of course would be somewhat less in the dry air of the interior of the State; but the figures show that on strong soils the expectation of eighteen to twenty thousand pounds per acre, where four cuts can be made, is not extravagant. The minimum product from dry stalks is estimated to be 15 per cent of raw merchantable fiber. Upon these data an approximate estimate of the crop, and of its financial outcome in the several climatic regions of the State, may be based.

It is hardly necessary to remind any intelligent farmer that only strong soils can be expected to produce, in one season, a crop of ten tons of dry stalks of any kind, and that few can continue to produce such crops for many years without substantial returns to the land, no matter how fertile originally; but there is no reason why the offal of the ramie or p—the leaves and stalk-trash—should not be regularly returned to the soil. The leaves can be, and are usually, dealt with by stripping the stalk on the ground, leaving them where they grew. As to the stalks, it is true that with three or four cuts per season it will be difficult to deal with the large mass of refuse by spreading it on the stubble, although in the more northerly portions of the area of cultivation it may be desirable to use this material for protection against frost. But as the return must either be made, or fertilizers purchased, the proper mode of procedure will be to make compost-beaps of the trash and thus render it less bulky and convenient for spreading on the stubble after the last cut. This, in the case of strong soils, is all that will be required to keep up production for a long time, although the raw fiber sold represents a larger proportion of the soil's plant-food than in the case of cotton, in which the return of seed and stalk will maintain production indefinitely on any soil capable of yielding a profitable crop. When no returns are made, ramie will prove even a more exhaustive crop than is cotton when the seed is not returned, and those engaging in its culture had better understand from the outset that they can "rob the soil" with ramie even more effectually than with wheat.

On the strong, black, adobe soil of the Berkeley experimental plot, where purposely no return or fertilization of any kind has taken place, the crop of 1890 was fully as large as any previous one within the four years in which weighings have been made. Owing to the constant call for plants, the ground has never been solidly occupied by the crop; but even in the year in which the plot was reset in spring, with half the stocks, the product was nearly up to the average, so rapidly do the plants tiller and spread.

Among the strongest soils in the State are those containing more or less of "alkali," and as these are mostly valley lands, the question of their adaptation to ramie culture is important. Experiments have shown that while ramie is a little more sensitive to alkali than alfalfa, it will stand all but the strongest spots provided the alkali is not of the "black" kind, viz., carbonate of soda; and as the conversion of black alkali into "white" is easily effected by the use of proper doses of plaster or gypsum, it may fairly be said that with this proviso, ramie may be grown in alkali lands available for little else, since the growing of alfalfa cannot be carried beyond a limited point with profit to the producer on account of its relatively low value and heavy weight in transportation. The main reason why ramie will grow in alkali ground is the same as in the case of alfalfa—because it shades the ground, and hence the evaporation, going on through the leaves of the plants instead of at the surface of the soil, will not accumulate the noxious salts around the root crowns so as to corrode them. But it must not be forgotten that until the plants fully shade the ground, the rise of alkali in the middles must be prevented by thorough tillage, otherwise damage may result in that the outermost shoots suffer and the spread of the plants is retarded. As against alfalfa, ramie also possesses the advantage that, as it is not propagated from seed (in the field at least), but by the division and setting out of plants or their roots, the difficulty of obtaining a stand on account of the rotting of the seed by the alkali, does not exist.

So far, then, as the successful and profitable growth of the plant is concerned, there need be little doubt in the valleys of the central and southern parts of the State, so soon as the processes for marketing the fiber shall be an assured success.

E. W. HILGARD.

### Flax for Seed and Fiber.

Occasional efforts have been made during the last 15 years to establish the manufacture of linen fabrics in California by those claiming to be practically acquainted with the industry elsewhere, but the projectors of such enterprises have abandoned the undertakings because of the alleged lack of interest among local capitalists. Whether this is the true reason for the failure to establish flax-spinning in this State or not, we do not pretend to state.

It has been frequently stated that the production of flax for both seed and fiber is not feasible, and our farmers who have grown flax for seed have therefore abandoned the thought, which has frequently arisen in their minds, of gaining something for their flax-straw as well as for the seed crop. It seems likely that an erroneous impression has thus been engendered, for there are recent authoritative statements to the effect that not only is the production of both seed and fiber from the same plant not impracticable, but that "by far the larger part of the flax grown the world over is for the double crop and double profit of both the seed and the fiber."\* We are also assured that "it

is possible to grow for both seed and fiber, though the fiber will be coarse, naturally, and only fit for the lower classes of manufacture."

It is possible, then, that even in growing flax for seed, as now practiced in this country, the fiber could be made a source of income, providing the straw was not disintegrated as in the prevailing mode of threshing. It is also possible that, by selecting a better variety of flax than commonly grown for seed, and by sowing more thickly so that the growth of lateral branches on the main stem is measurably repressed, there might be secured a fiber product vastly better than is now obtained and therefore fitted for a higher class of manufactures. This procedure might result in a lessened production of seed by the individual plant and perhaps a reduction in the aggregate yield per acre; in fact, in our experiments with flax varieties, we find that the best European fiber varieties yield much less seed than the variety commonly grown for seed in this State.

It may be concluded, then, that, though to grow flax both for seed and fiber requires closer thought and greater effort than is usually given to the flax crop, and that to make the straw available to manufacturers requires some investigation and investment on the part of the flax-grower, the current claim that one cannot grow flax for both seed and fiber is not necessarily true in the nature of the case nor in the experience of the greater number of the flax-growers of the world.

In order to minister to the oft-recurring demand from inventors for California-grown flax-straw for trial in their machines and processes, and to furnish seed to growers who desired to experiment, we secured from Europe, years ago, four of the best fiber-flax varieties and have grown them from year to year on the experiment grounds of the Berkeley station. They have attracted much attention from visitors for their beautiful, straight, tall growth of stem and bright, clear color. The growth of the four varieties has been quite similar, as shown by the record of 1890:

Variety.	Sown.	Germi-nated.	Bloomed.	vested.	Har-
Russian.....	Apr. 12	Apr. 23	June 3	July 24	
Yellow-Seeded.....	Apr. 12	Apr. 23	June 2	July 24	
White-Flowered.....	Apr. 12	Apr. 23	June 2	July 24	
Royal.....	Apr. 12	Apr. 23	June 5	July 24	
California.....	Apr. 12	Apr. 23	June 10	Aug. 4	

The European fiber varieties are thus shown to require a shorter growing period than the California-seed variety. The fiber varieties averaged one-third longer in straw than the California; they branched less and produced much less seed. Accurate weighings of straw and seed have not been secured hitherto because the plots were invaded from time to time to furnish specimens for exhibition and for experimental fiber extraction by local inventors. This year, careful weighings will be made.

Though these flaxes have aroused considerable interest here in the manner stated, there has been no result in local fiber treatment that is worth mentioning. Seed was sent to Washington Territory, and straw grown there was sent to European flax manipulators, who returned a very favorable report. On April 29, 1890, we received a circular request addressed by Mr. S. S. Boyce, President of the Boyce Fiber Company of New York, to the various experiment stations of the United States asking for samples of flax straw, which he agreed to work for fiber and report results. Mr. Boyce did not describe his process, but it is stated by Mr. Dodge (in his report to which allusion has been already made) to be "a process for cleaning flax without first submitting the straw to the process of retting, thereby obtaining the fiber at once." Such a process naturally would be more attractive to the flax-grower, for the time, labor and water required in retting are all probably of higher cost and more difficult to command in this State than in other regions where flax is grown.

The New York *Dry Goods Economist* of Oct. 18, 1890, contained a description of the working of the flax straw sent to Mr. Boyce from this station, with engravings of the several hundles as received by him. The following is a condensed tabular statement, which we compile from the data in the article referred to:

WEIGHTS OF SEED, STRAW AND FINE FIBER FROM CALIFORNIA-GROWN FLAX VARIETIES.				
Variety.	Gross Weight.	Seed.	Straw.	Fine Fiber.
Yellow-Seeded.....	19	7	12	2½
Russian.....	16	6	10	2½
Royal.....	15	6	9	2½
White-Flowered.....	15	7	8	2
California.....	14	7	7	1½

Comments upon the experiments are, that the Russian and Royal seemed to be best, both for seed and fiber. The California gave much the largest yield of seed, and the seed was very large and plump, but the fiber was coarse and weak.

Of the general results of the experiment the *Economist* says:

There is no tow by this process of retting. The natural color of the straw was very light; that of the fiber almost perfectly white in each sample. The total yield of the fiber, 23 per cent of the weight of the straw, was rather a light yield of fiber but very fine. The yield of fiber is greater when the straw is not over-ripe. The samples treated had been allowed to get riper than required for either seed or fiber.

The results of this trial are of interest as showing clearly the superiority, from a textile point of view, of the flax varieties which this station has introduced to this coast over the common variety which is grown for seed. Whether it is possible to realize more by the attempt to produce both seed and fiber here, and to substitute one of these varieties for the one commonly grown, is an industrial question depending upon manufacturers and capitalists for solution. The farmer cannot afford to produce a crop of any kind until a market is assured.

E. J. WICKSON.

Berkeley, Jan. 23, 1891.

\*Report on Flax Hemp, etc., by C. R. Dodge, U. S. Dept. Agr., 1890.

\*New York "Dry Goods Economist," Oct. 18, 1890

\*The gross inappropriateness of the latter name may render it desirable to repeat here, for the benefit of those to whom the subject is new, that the ramie plant is a large, stinging, broad-leaved nettle, and therefore belongs to a family of plants of which many other members supply valuable fibers.



## PATRONS OF HUSBANDRY.

In our Rural Press Official Grange Edition, issued every week, will be found additional matter from this and other jurisdictions, of interest and importance to Patrons. Any subscriber who wishes can change free to that edition.

### What About the Legislature?

There is much concern about matters at the State Capitol. It seems time that the alarm should be sounded. The Mutual Fire Insurance Co. bill has been killed by its enemies; also the bill for collecting delinquent taxes; the Australian Reform and Ballot law is also said to be in danger of defeat. In fact, it appears as if but few, if any, of the needed reform acts, recommended by the Grange and Alliance, are likely to be passed by the present Legislature. When we consider that the boss of the dominant party is worse than an ordinary government defaulter, is it not time all honest legislators and citizens should be on their guard?

It is intimated that instead of passing out the sack among the members of the Legislature this year, the business is done wholesale, through a well-known leader of the dominant party.

Bro. Ohleyer, Chairman of the Legislative Committee of the State Grange, early in the week made a call for the members of that committee on Wednesday. We hope that they will be able with the aid of those interested in honest legislation to secure the passage of a good Australian Ballot law and possibly the introduction and adoption of a new enabling Act for "Mutual Fire Insurance Co."

The following quotations from two of our daily papers are significant in this connection:

#### Farmers Should Organize.

Every measure in the interest of the farmer, and every proposition looking to a reduction of taxation that has been offered in the present session of the Legislature, have met with defeat. Pledges made prior to the election have been disregarded and the plain provisions of the Constitution of the State have been violated, and large sums taken from the treasury under the plea of urgency and prior to the passage of the general appropriation bill.—*Marysville Democrat*, Feb. 14.

"You can estate for me," said E. M. Piercy, of the Legislative Committee of the Farmers' Alliance, to a Bee reporter, Wednesday night, "that there is many a man on the floor of this Legislature who will never have a seat there again. Every measure and bill that has been brought up in this session in the interest of the farmers has been promptly voted down. The Mutual Insurance bill is an instance of this. On the face of it, there is no reason why the majority of the legislators should oppose a measure universally demanded by the farmers. I say on the face of it. We cannot tell what other influences may have been brought to bear. Since we are refused justice by this Legislature, we will take good care that our influence is felt in the next election and the next Legislature. The Alliance was not formed and did not intend to take an active part in politics, provided we could get justice from either of the existing parties. But since all of our demands have been ignored, our plans will change accordingly, and at the next election there will be 'music in the air.'"

Mr. Piercy's remarks were indorsed by a gentleman standing by, high in the councils of the Grangers. "There is no doubt that there is a determination upon the part of the Grange and Alliance to enter the field of politics, and the parties and persons who have slighted their requests will be marked in the future."—*Sacramento Bee*.

We wish the Masters of every subordinate Grange in this State could visit the Capitol and support our Legislative Committee during the next week or ten days. Every Patron and farmer, discuss the matter in your Grange and see what help you can render. All honest, industrial citizens should use their best directed influence to try and secure the much-needed reform legislation proposed.

### Reception to W. M., Hayes.

A reception was given W. M., H. E. Hayes of Oregon State Grange, by Temescal Grange, on Friday evening, 13th inst. On account of the shortness of time for issuing notices, the meeting was not as well attended as under other circumstances it would have been.

P. M., Woodhams was called upon to open the meeting, which he did by introducing Bro. Hayes as the guest of Temescal Grange and asking him to address a few words to those assembled.

Bro. Hayes then made the meeting a most excellent and instructive talk of about an hour's duration, in which he touched upon the various topics of interest to Patrons and all farmers, advancing some new and original ideas on the Stanford Loan bill and free coinage of silver, making quite a point in talking of the educational features of the Grange and how desirable it was that the young people of the farm should join the Grange to learn that they had rights, to know them and how to battle for them.

At the conclusion of our brother's speech, the chairman called upon each one present to offer a sentiment on the occasion. Nearly all present responded.

Bro. and Sister Dewey each spoke a few

words of welcome and of thanks for the speaker's efforts in behalf of the Grange in California, also gratefully and appreciatively of the goodwill and kindness shown each of them by the Patrons of Oregon during their visit to the Oregon State Grange at its last session, and particularly did they mention the special attention shown them by Oregon's W. M. and his most estimable wife.

The W. O., Judge Gibson, had a few words to say on the honorable calling of the farmer, that a large proportion of our country's best, greatest and most able men, from Washington down to the present day, had been either themselves farmers or had been brought up on a farm; that in fact the farming population furnished a very large part of the hrawn and brain of the land. He also spoke of the beauties of nature as an every-day sight to the farmer, of the comforts and restfulness of being able to sit under the shade of one's own vine and fig tree, not enjoyed by the denizens of a city—in language, however, that the writer does not pretend to portray.

Nearly all present said something—a word or two of kindly and fraternal feeling toward the guest of the evening, and as on the next day Bro. Hayes had determined to start homeward, the breaking up of the meeting was a perfect love-feast of good wishes and fraternal farewells to our worthy brother.

Although the weather was threatening, the loyal sisters turned out in good numbers and Oregon's Master was made to enjoy the friendly greeting. On motion, a resolution was unanimously adopted, thanking Brother Hayes for his able and generous services in speaking before Temescal and other Granges, and farmers meetings, in various parts of the State.

The hope was expressed that his visit might be repeated in company with Sister Hayes.

M. W.

### The People's Petition

For a Government Trunk Line Railroad.

By request of a brother, Past Master J. V. Webster has written the following statement and petition to Congress, which has been furnished us for publication, hoping that many Granges and other organizations or individual members who may favor it, will use it for preparing suitable petitions for signatures which they may secure and then forward the same to the Members of Congress from their respective districts. Secretaries of Granges and other associations can thus easily present the matter before their members, circulate the petitions, forward them to their Congressman or Senator, and report action to this and other papers:

#### Petition.

To the President and Congress of the United States:

WHEREAS, The Union and Central Pacific Railroad Companies are justly indebted to the National Government to the extent of one hundred and twenty-five million dollars principal and interest, for aid furnished said companies in the construction of said roads; and

Whereas, Said companies have utterly failed to comply with the terms of the Congressional Acts under which these immense loans were made, and the date of possible payments under the provisions of said Acts, fully expiring in 1895, or soon thereafter; and

Whereas, It is expedient, proper, and the necessities of the case are urgent, that the Government should regulate and control all transportation charges; and

Whereas, State and Interstate Railroad Commissions appear powerless in accomplishing the end for which they were created; and

Whereas, The whole history and experience of the controversy fully demonstrates that there can be no relief for the people from extortionate rates of freights and fares, short of Government ownership and control of at least one trunk line railroad across the continent;

Therefore, we the undersigned, citizens of the State of California, hereby respectfully petition and implore the Congress of the United States to refuse said railroad companies any further extension of time for the payment of their indebtedness to the Government, but instead thereof, at the earliest opportunity, take measures for the condemnation and appropriation of said roads for Government use, and furthermore condemn and appropriate at least one trunk line of railroad from Omaha to New York, to the end that the Government may own and operate at least one through line from the Atlantic to the Pacific ocean, that reasonable rates of freights and fares may be established and uniformly maintained, and thereby tend to regulate and control the whole carrying trade, which, as at present managed and manipulated, will ultimately impoverish the people to an extent unbearable, that a few men may roll in riches.

And furthermore, your petitioners respectfully pray that Congress may provide for a special issue of Legal-Tender notes, with which to pay off the first mortgage bonds of said Union and Central Pacific railroads, and to supply funds for the further use of condemning and appropriating an additional line of railway from Omaha to New York.

NAMES.

ADDRESS.

BROS. MARTIN AND DENMAN of Two Rock Grange, members of subcommittee on Co-operative Buying, were recently in S. F. two days, and with members of the State Grange at the Secretary's office, have been doing good service in working up the plan adopted by the Patrons of Pennsylvania known as the "Pennsylvania Plan" of buying and selling. They have succeeded in obtaining favorable answers from a number of the leading merchants. Bro. Martin has reported progress to the Executive Committee, also asking the members to come together at an early day to perfect the system.

### The Master's Desk.

R. W. DAVIS, W. M. S. G. OF CALIFORNIA.

#### Membership Fee.

Article VII of the Constitution of the National Grange, as amended, now reads as follows:

The minimum fee for membership in a subordinate Grange shall be, for men three dollars, and for women one dollar for the four degrees: *provided*, that State Granges shall have the power to reduce the fees within their respective jurisdictions to any sum not less than one dollar for men and fifty cents for women.

Please cut this out and paste it in your copy of the National Grange Constitution. By so doing you will have the law handy, reliable and correct on the subject of fees for membership. The State Grange of California has not yet reduced the fee from the original sum of three dollars for men and one dollar for women.

It is an abiding principle with the Grange to relieve any of its oppressed and suffering members by any means that are honorable, just and worthy. Don't you want to join such an Order? That is the work, in part, of the Grange.

The Grange has no affiliation with or sympathy for any species of socialism, nihilism, agrarianism, one-tax landism, or communism. The Grange believes in government by the people, for the people and of the people; justice to all, special favors to none.

Be a jewel in your Grange. If you can't be a blazing diamond, be at least a shining pearl. "Where there's a will there's a way."

Call the roll of officers at every Grange meeting. Note the absentees and let it so appear on the proceedings of the Grange. Every officer has a duty to perform; at the end of the year you will want to know about promotion.

The crop of combines, trusts, monopolies and associations is so flourishing that nothing but a combine of farmers will check it. Farmers everywhere must organize and elect men to public office regardless of party politics, if they would have any relief from grain, insurance, machinery, railroad, banking and shipping combines. Self-protection is as much the first law of nature to the hands that feed them all—the farmer—as it is to any one on earth. Let's organize the farmers into one solid, staunch band of brothers and sisters—not for the purpose of pillage, but for the purposes of education and self-protection.

The Grange, though proud of its conservative history, does not propose to be too conservative to deal with live issues. It does not intend to be so conservative that politicians may betray its requests without feeling the heavy hand of its members on election day. The Grange in California asks for some relief from the extortion of insurance companies, and political woe be to the Honorables in this Legislature who refuse this demand on the part of the farmers. The record is being kept, and the Grange will be fully informed.

Sister Jennie Buell, the efficient Secretary of Michigan State Grange, has our thanks for a copy of the Journal of Proceedings of the late session of that State Grange. Having read, with much interest and profit, the report of the Executive Committee and the address of the W. M., Bro. Thos. Marra, we most heartily commend the perusal of these papers to the farmers of California.

In the Grange "there abideth Faith, Hope, and Charity—these three; but the greatest of these is Charity." Therefore let us have the fullest abundance of charity for our own erring and needy ones; for all who are working, either in our grand Order or in other Orders or associations, for the upbuilding of society, for the education of humanity, for the protection of the weak, for the control of the vicious, and "for the good that they may do." While we would like to have every farmer and his wife, sons and daughters join the Grange who believe that there are wrongs to be righted, children to be educated, and good to be done, yet we must practice that charity we teach, and wish them Godspeed in the work their hands find to do, even though they do not join the grand, good, true old Grange.

The road question is yet before the Legislature; but the chances for any great measure of relief seem more than doubtful. Now won't the Grange make this a fight for the next Legislature? Don't vote for any man who is not solid on that question. Let the State Grange agree on a bill and then we can pass it, without doubt. The trouble has been, we were not fully agreed among ourselves. How about doing away with a direct road tax, and have every man under 60 years of age work out his tax? Something must be done for the roads. Send opinions to the RURAL PRESS. The question is an important and very difficult one, for California is a large State with all sorts of soil and all kinds of plains, mountains, streams and canyons. Give the subject thought and then tell how to solve the problem.

Splendid schools, better roads, postal telegraph, free coinage of silver, Senators elected by the people, pure-food laws, anti-trust laws, mutual insurance law, railroads to pay their

just debts to the Government and their taxes to the State and to the several counties, and a higher and better manhood and womanhood everywhere, are among the things demanded by the Grange. Don't you, fellow-farmers, approve of such a platform? If so, then join the Grange and help bring about these results. If there is no Grange near you, get up a list of not less than nine men and four women and organize a Grange. A Deputy will be sent on application to A. T. Dewey, 220 Market St., San Francisco.

Young men, middle-aged men, old men, be sure to keep a clean record. The record is what counts. The clean record will tell. Be ever anxious to keep your record spotless, pure, clean.

Be sure to have music at your Grange meetings. Have the best music you can secure, but if you can't get the best be sure to have the next to the best. Don't wait for your best singers. Go on with the music and perhaps the best singers will be on time at the next meeting. Don't neglect the music!

The season for lecture work is near at hand. Whenever a subordinate Grange will get a good meeting—not a mere handful of staid Patrons but a big audience of farmers who are interested in self-advancement and the protection of family, home and vocation—we will try to furnish them a good speaker; some one who will tell the people what the Grange has done, is now doing and proposes to do. But to secure such a speaker, the Grange or Granges making the demand should first be sure of a good attendance of members and farmers; then they should give ample time to the speaker whom they want, and lastly, advertise the meeting fully and freely by posters in public places, by postal cards sent to neighbors and friends, and best of all, by word of mouth and personal effort. The Grange is going to grow; it is on the "forward march." Are you willing to do your share, and are you going with the procession?

Fertilize your mind and the mind will find fertilizers for the soil. Thus both the crop of ideas and of cereals is enlarged. Humanity is benefited while no harm has been done any person or any thing.

### Sacramento Co. Pomona Grange.

EDITORS PRESS:—At the regular meeting of Sacramento County Pomona Grange, the following resolution was introduced by Bro. Charles Hall:

*Resolved*, That Sacramento County Pomona Grange indorses the bill introduced in the United States Senate by Leland Stanford authorizing the Government to make loans to farmers direct, having the same secured by mortgage on land unincumbered, and further ask our representatives in the Legislature to use all honorable means to secure the passage of the same.

The following resolutions were introduced by Bro. E. Greer:

*Resolved*, That our representatives in the Legislature be instructed to use all honorable means to have an appropriation made by the Legislature for the erection of a Governor's mansion, the same to be erected in the State Capitol Park.

*Resolved*, That we, the members of Sacramento County Pomona Grange, would most earnestly request our representatives in the Legislature to use all honorable means to secure a reasonable appropriation for the repairing and preserving of Sutter's Fort in the City of Sacramento.

This being the last meeting before our annual picnic, it was moved that the necessary arrangements be made and committees be appointed, which was done.

Bro. Jackman introduced the following resolution:

*Resolved*, That no intoxicating liquors shall be allowed to be sold on the grounds of said picnic on said day.

The resolution caused a lively discussion in which the sisters took part. The resolution was adopted by an almost unanimous vote.

Work on, brothers, don't grow weary;

Still maintain your noble stand;

Though the skies at times look dreary,

Work on, brothers, hand in hand.

Pity still a fallen brother,

Still assist the weak to rise;

Love not only one another,

But each soul beneath the skies.

Work on, sisters, work in patience

With your gentle, loving hearts;

In the vanguard take your station,

Bravely there discharge your parts.

Pity still a sister's mourning,

Still assist the weak to rise;

Let your lamp be trimmed and burning,

Pointing upward to the skies.

Work on, brothers, be not daunted

Though the harvest seems so small;

If the farmer had not planted,

None had gathered in the fall.

Brothers, sisters, work together,

Plant the seed and watch with care;

Though to-day be gloomy weather,

By and by it will be fair.

A. A. K.

WATSONVILLE GRANGE, though waiting for rain, has not been idle. It will hold a George Washington meeting, with exercises appropriate to the occasion, on Feb. 21st, and will initiate another class at the first regular meeting in March.

Later.—Watsonville rejoices with all Patrons for the glorious rain.



FARMERS' ALLIANCE.

SUBSCRIBERS wishing fuller information of the Alliance can have their names changed to the Grange Edition of the RURAL PRESS free, much to their advantage, this department being continued in the same.

The Aims and Future of the Order.

State President Cannon writes to the Ventura Democrat as follows:

Editors Democrat: In the lull of my immense correspondence a few thoughts may be of benefit to the toiling masses. The mariner often pines upon the boundless ocean and takes the meridian sun to determine the exact position in which his vessel is placed upon the bosom of the mighty deep; so with us, we should occasionally make a reckoning to determine where we are. The farmer has at last broken the spell that bound him. He has smashed the traditions of centuries. He has kicked out of the shafts and is running away, and the men who have driven him with tight reins are buried into the ditch and crushed beneath the wheels. It has been so sudden they hardly know what struck them. Some say it is a cyclone and will soon blow over. Old man Tradition runs his hands, forces a smile through his chattering teeth, says he knows it is a cold day, but then he looks for warmer weather to-morrow. But he is not sure of his own prophecy. The trouble is, the people have begun to think—the masses of the people, the old farmer, the patient beast of burden, who has toiled for ages that others might reap. When the masses begin to think, it shakes the world. It is this mighty movement of the masses that is shaking the very foundations of the civilization of the nineteenth century, and even now drawing in dim outline the new civilization of the next century.

The time was when all eyes were fixed upon the great and powerful kings and warriors of history. Poets sang of them. Literature fawned at their feet. But to-day all is changed. The eyes of the world are now fixed on the toiling masses. The story of a nation is the history of their condition. The "Song of the Shlr" thrills the heart of a world. There are mighty forces beneath, lifting up these millions into a new life. They are at last becoming conscious of their needs, and with their capacities as a lever and their needs as a fulcrum, they are tugging away at the very foundations of social, economic and political life, and our civilization to-day quivers from foundation to keystone beneath these assaults.

All the nations of the earth feel this new power. The Czar of Russia shivers in his palace and adds another regiment to his bodyguards. The Emperor of Germany, seeing the handwriting on the wall, hastens to make friends with the "unrighteous." The drum-beat of the Salvation Army echoes around the world calling mankind to the rescue of the submerged millions from the filth of the great cities.

The Farmers' Alliance is a gigantic wave of this world-wide movement of the human race. It holds in its hands not only the possibilities of a higher life for this generation, it holds the hopes of unnumbered generations yet unborn. Our organization is superb. It is the strongest social and political machine ever devised by man. We are determined to lift up the toiling hosts and make their life worth living. We are teaching that it is just as honorable to plow with a mule as to make laws, or to run a bank or a railroad. We have many crude ideas as yet about law and finance, but we will learn as we go along. Absurd demands will take reasonable shape in the red-hot forge of public debate and education. Demagogues will try to mislead it for a time, but we will kill two demagogues where we will nourish one. Our greatest danger lies in the possibility of selfish intrigues in politics, in which our lofty principles will be forgotten in a mad struggle for immediate power. Holding fast to our principles, we will ultimately sweep this nation in triumph. We represent the grandest moral issues of the age. Standing firmly on these issues, we are as sure to win as that there is a God who rules the universe. Fall in line, or hunt shelter.

The above shows President Cannon to be worthy of his cause and position.—EDS. PRESS.]

STRENGTH OF THE ALLIANCE.—Under this head the Fresno Republican editorially declares that the recent victory of the Kansas farmers has proven them clever and astute politicians, thus disproving the prediction by disgruntled parties that defeat would be their portion. That the farmers are no tyros, says the Republican, is attested by Pfeffer's election and Ingalls' overwhelming defeat. In addition, they are fast gaining ground in Nebraska and have absolute control of the Illinois Legislature, while indications point to the election of their candidate as United States Senator from the latter State. The article concludes as follows: "These are facts that cannot be disguised and that no politician will overlook. The Farmers' Alliance is ably managed, that's clear, and its political strength must not be underestimated. It isn't safe to do. Its recent successes will greatly strengthen it."

LA GRIPPE.—Bro. John S. Dore, Chairman State Executive Committee, who has lately been suffering from this unwelcome visitor, we are glad to report is recovering and able to wield his vigorous pen again. Bro. D. appears to be an inveterate worker whom we would like to see a little more kind to himself.

Secretary's Column.

[C. W. PEDLAR, Sec. Cal. State F. A. & L. U., Gilroy.]

EDITORS PRESS:—I am in receipt of a letter from D. Edson Smith of Los Angeles, announcing the organization of San Diego County Alliance by himself and Sister Anna F. Smith, the latter of whom has been at work for some time in the county as State Organizer (and who, by the way, is one of the most efficient Organizers now at work), with delegates from 13 sub-Alliances, about 50 in number. The following officers were elected to serve until July next: Pres., Wm. Haslam, P. O., Winchester; V. P., Wm. Justice, Richland; Sec'y, C. M. Kirkpatrick, Menifee; Treas., L. Yates, Elsinore; Lect., J. H. Sberard, Menifee; Ass't L., W. L. Wilhite, Valley Center; Steward, W. C. Ball; D. K., D. Trussell; Ass't D. K., C. W. Newhall, San Ignacio. C. W. PEDLAR. Gilroy, Feb. 16.

Attend Barbee's Meetings.

Bro. J. S. Barbee is now on a lecturing tour and will give the ritualistic work of the Farmers' Alliance according to the latest regulations of the late National Alliance meeting at Ocala, which varies considerably from the work as first given out in this State.

He will post the brethren up on unpublished transactions at Ocala and his observations of the signs of the times in the East, etc. Is ready to answer all questions and do whatever work he can for the good of the Order in his travels. His list of announcements appears this week. The meetings are called for 10 A. M., and whenever it is desired by an Alliance he will give a public lecture during the first hour.

Without waiting to be invited, members of the Order, not only in the places named, but in neighboring districts, should, as far as possible, come in to listen to Bro. Barbee. We hope to have a report of each meeting and that each will be a success.

Readers should pass the information around as early and as far as possible. Bro. Barbee is not only a persistent worker, but a pleasant one to meet.

National Organizer's Appointments.

I will meet Alliance officers and members at 10 o'clock A. M. at the time and places mentioned as follows:

Wednesday, Feb. 18th, Niles; Thursday, 19th, San Jose; Friday, 20th, Hollister; Saturday, 21st, Watsonville; Monday, 23d, Soledad; Wednesday, 25th, Enterprise (Sacramento Co.); Thursday, 26th, Modesto; Friday, 27th, Selma; Saturday, 28th, Tulare; Monday, March 2d, Tracy; Wednesday, 4th, Santa Rosa; Friday, 6th, Blacks Station; Saturday, 7th, Arbnckle.

The President and Lecturer of Merced County Alliance, with all the sub-Alliance Presidents and Organizers, are requested to meet me at Tracy on Monday, at 10 A. M., March 2d, and receive the new unwritten work. All members of the Alliance in Merced, Stanislaus and San Joaquin counties are cordially invited to attend the Tracy meeting.

J. S. BARBEE, National Organizer.

[Turn out and give Bro. Barbee a generous and hearty reception.—EDS.]

SANTA ROSA ALLIANCE.—Bro. J. Roberts writes that at the last meeting of this Alliance, Feb. 16, National Organizer Barbee was present and made some very encouraging remarks, after which he initiated a class of nine. The county is being organized, a County Alliance formed, and a Business Agent appointed. Bro. Roberts adds that many of the Grange members have joined the Alliance, and that with this powerful combination, a better day is dawning for Sonoma county.

Bro. R. is County Business Agent and on Tuesday visited State Agent Moore in company with Bro. Barbee.

WORK PROGRESSING.—Sec'y Pedlar writes from Gilroy, Feb. 14: There are several more counties in which work is being done, but only a beginning has been made as yet, except in Humboldt, which will be reported as organized in a few days. I will send you a brief report of Bro. Rigdon's work as County Lecturer for Santa Clara county in a few days.

The officers of the Bloomfield (Sonoma Co.) Farmers' Alliance are: Pres., John Tabor; V. P., Rev. John Phillips; Sec., Mrs. E. C. Henshaw; Treas., John Johnson; Lec., C. P. Smith; S., G. F. Woodson; D. K., John Slaterly; Ass't D. K., Louis Johnson; Chap., Mrs. John Phillips.

WHAT is said to be the only strictly commercial journal in the country, devoted to the business interests of the Alliance, is the Wall Street Farmer, published at 335 Broadway, New York.

THE indications are that Harrison will veto the Silver bill. If so, and the Republicans do not pass it over his veto, they will hear a heavier drop in '92 than they did in '90.—Farm View.

A BALL will be given by Farmersville, Tulare county, Alliance, Feb. 27, to raise funds to buy an organ for the Lodge-room.

FRUIT MARKETING.

Santa Clara Valley Fruit Grades.

In our issue of Feb. 7th we gave the grades of deciduous fruits proposed by buyers in the Santa Clara valley. The following terms, conditions and grades below named were adopted by the Fruit-Driers' and Packers' Association of Santa Clara Valley Jan. 17, 1891, as the standard:

Grades and Conditions.

All fruits shall be uniformly graded, shall be fully matured and not overripe for the purpose named in this contract. All fruit delivered graded, which on examination shall be found to be improperly graded, may be re-graded by buyer, for which seller agrees to allow buyer cost of grading.

APRICOTS.—Extra.—Shall measure not less than 2½ inches in diameter, shall be sound, clean, free from blemish or imperfection. No. 1 shall measure not less than 2 inches in diameter, shall be sound, clean, free from blemish; No. 2 shall measure not less than 1½ inches in diameter, shall be sound, clean, free from blemish; No. 3 shall measure not less than 1 inch in diameter, and shall be of good merchantable quality.

CHERRIES.—Extra.—Shall measure not less than ¾ inch in diameter, shall be sound, clean, free from blemish or imperfection; No. 1 shall measure not less than ¾ inch in diameter, shall be sound, clean, free from blemish; No. 2 shall be sound, clean and of good merchantable quality.

PEACHES.—Extra.—Shall measure not less than 2½ inches in diameter, shall be sound, clean, free from blemish or imperfection. No. 1 shall measure not less than 2½ inches in diameter, shall be sound, clean, free from blemish, of uniform ripeness; No. 2 shall measure not less than 2½ inches in diameter, shall be sound, clean, free from blemish; No. 3 shall measure not less than 1½ inches in diameter and be of good merchantable quality.

BARTLETT PEARS.—Extra.—Must be delivered as soon as picked. Shall measure not less than 2½ inches in diameter, shall be sound, clean, free from scab, scale, blemish or imperfection. No. 1 shall measure not less than 2½ inches in diameter, shall be sound, clean, free from scab, scale, blemish or imperfection; No. 2 shall measure not less than 2½ inches in diameter, shall be sound, clean, free from blemish; No. 3 shall measure not less than 2 inches in diameter and be of good merchantable quality.

PLUMS.—Extra.—Shall number — to pound, shall be sound, clean, free from blemish or imperfection. No. 1 shall number — to pound, shall be sound, clean, free from blemish; No. 2 shall be sound, clean, free from blemish; No. 3 shall be sound, clean fruit of good merchantable quality for purpose named in contract.

PRUNES.—Extra.—Shall number between 15 and 20 to pound, shall be sound, clean, free from stems, blemish or imperfection. No. 1 shall number from 20 to 28 to pound, shall be sound, clean, free from blemish; No. 2 shall number from 28 to 35 to pound, shall be sound, clean, free from blemish; No. 3 shall be uniformly graded, be sound, clean fruit of good merchantable quality.

Fruits not enumerated in the above schedule shall be specially graded as per agreement between buyer and seller.

W. F. PARKER, Secretary. N. J. HAINES, President.

FORESTRY.

Starting Tree Seedlings.

EDITORS PRESS:—I would like to give your readers the result of what was to me a new method of starting blue gum plants. One year ago the first of this month I got my seed, 1 cz. Eucalyptus Globulus. The directions on package said to sow in light soil. Wishing to experiment, I prepared three boxes filled with pure fine sand from the river bed, and mixed with well-rotted stable manure in proportion of two parts sand to one of manure, which must be worked up fine and well mixed with the sand.

I also prepared at the same time and gave the same treatment to one box sowed in light soil mixed with a small amount of manure. The seed was covered lightly about ½ inch deep, and kept moist until the young plants came up. The result was that almost every seed came up in the sand, while not one in ten came up in the soil. One advantage is that in transplanting from the boxes of sand, the roots of the plants separate much better than from soil, so that nearly all the roots are got without breaking. The plants grow more vigorously in the boxes of sand than in the soil. These were transplanted to permanent site in April, mostly, and all grew very well.

In October last, I sowed in 23 boxes with sand prepared as before, using about four or five ounces seed, and have now about 13,000 young plants ready to transplant.

Some neighbors who I told of my success adopted this method with good results, where before they had poor success planting in soil. I have tried other varieties of eucalyptus with equally good results. The young plants, until they get the second or third leaf, must be pro-

tected from hot sun or from frost by light thin cloth. I use unbleached muslin for this. In transplanting, use very little water, just enough to mix a little mud with the finger in the small hole dug for the plant. The ground of course must be well worked and in good condition. Now as eucalyptus seed most certainly germinates better in sand and manure than in soil, why will not all tree and vegetable seed that require transplanting start best that way? Santa Paula, Cal. J. B. CARR.

[This experience is interesting and will be useful to many. Most seedling growers use much sand. Readers should notice that well-rotted stable manure was used. That is an important item.—EDS. PRESS.]

Baden Stock-Yards.

The Enterprise Inaugurated at San Bruno Point.

Articles of incorporation were filed Tuesday with the Secretary of State of the South San Francisco Land and Improvement Company. The objects of its formation are stated to be to purchase, subdivide, cultivate or sell farming lands, town lots and colony tracts, to construct, maintain or dispose of dwellings, stores, warehouses, hotels, manufacturing buildings; to connect these by railroad tracks, to construct canals, elips and docks and to carry on a general hotel, warehouse and merchandise business; to deal in mortgages, bonds, stocks and notes, to loan money, to furnish fresh water for domestic, manufacturing, mechanical and irrigating purposes, to construct, operate or sell canals, pipes, ditches, reservoirs and all other improvements necessary for the perfection of a water system and to manufacture and furnish gas and electricity for lighting and other purposes and any other incidental or auxiliary business.

Baden, in San Mateo county, 12 miles distant from this city, on the coast division, is designated as the place where will be transacted the principal business of the corporation, which is to exist for a term of 50 years.

The seven Directors appointed for the first year are Gustavus F. Swift, Nelson Morris and Edward J. Martyn of Chicago, Peter E. Iler, Henry Miller, E. R. Lillenthal and Charles W. Smith of San Francisco. A meeting of the Directors for the election of officers will probably be held this week. It is expected that Gustavus F. Swift, President of Swift & Co., the largest pressed-beef firm in the world, will be President of this new enterprise. P. E. Iler will be retained as general manager and Charles W. Smith will be Vice-President with offices in San Francisco, and will be the chief executive officer of the corporation.

The capital stock is \$2,000,000, divided into 20,000 shares of the par value of \$100 each. The stock already subscribed amounts to \$1,695,500, and 40 per cent of this has been paid up.

Work will be commenced at once and vigorously prosecuted upon the buildings, roads and canal at Baden. Albert A. Veeder and Edward J. Martyn, Chicago attorneys, are here, representing the Chicago capitalists, in whose interest they are acting. Final plans have been adopted for the immediate erection of an abattoir, to cost \$125,000, which will have, among other appliances, an ice machine, for refrigerating purposes, with a capacity of 75 tons per day. Packing-houses, stock-yards, a hotel, banking and exchange offices at San Bruno Point, will also be constructed.

Engineers have been at work for some days on the 3400-acre tract at Baden, which is being laid out into roads and streets and subdivided into blocks and lots. The racecourse has also been surveyed and preparations made for the dredging of the canal, which will be 1½ miles long.

Some very prominent Chicago and San Francisco capitalists are connected with this enterprise. Armour & Co., G. F. Swift, and Nelson and Edward Morris hold among them \$800,000 of the capital stock, while many San Franciscans are also large shareholders in the company.—Call.

Loco Weed Again.

EDITORS PRESS:—There are numerous cattle and horses here that got loosed by eating loco or rattle weed. Do you know whether it is the leaves or the pod that hurts them, and do you know any remedy? WM. ROGERS. Twin River, Nye Co., Nevada.

[We have had many discussions on this subject, which have not shown much agreement among observers. Who has learned something more about it? We would like to have the discussion renewed.—EDS. PRESS.]

Three-Year-Old Rooted Vines.

EDITORS PRESS:—In answer to your correspondent "Novice's" inquiry in the PRESS of Jan. 31st as to planting three-year-old rooted grapevines, I would say that two-year-old roots here are much more profitable to plant than one year-old, and I do not see any reason why three-year-olds, even if they have fruited the past season, should not do well. Extra care should be used in transplanting. Riverside. JAMES BOYD.





### He Worried About It.

"The sun's heat will give out in ten million years more,"

"It will sure give out then, if it doesn't before,"

And he worried about it;  
It would surely give out, so the scientists said  
In all scientific books that he read,  
And the whole mighty universe then would be dead,  
And he worried about it.

"And some day the earth will fall into the sun,"

"Just as sure, and as straight, as if shot from a gun,"

And he worried about it;  
"When strong gravitation unbuckles her straps  
Just picture," he said, "what a fearful collapse!  
It will come in a few million ages, perhaps,"  
And he worried about it.

"The earth will become much too small for the race,"

"When we pay thirty dollars an inch for pure space,"

"The earth will be crowded so much, without doubt,  
That there'll be no room for one's tongue to stick out,  
And no room for one's thoughts to wander about,"

"The Gulf Stream will curve and New England grow torrid,"

"Than was ever the climate of southernmost Florida,"

"The ice crop will be knocked into small smithereens,  
And crocodiles block up our mowing machines,  
And we'll lose our fine crops of potatoes and beans,"

"And in less than ten thousand years, there's no doubt,"

"Our supply of lumber and coal will give out,"

"Just then the Ice Age will return cold and raw,  
Frozen men will stand stiff with arms outstretched in awe,  
As if vainly beseeching a general thaw,"

"His wife took in washing (a dollar a day),  
He didn't worry about it;  
His daughter sewed shirts the rude grocer to pay,  
He didn't worry about it;  
While his wife beat her tireless rub a dub  
On the washboard drum in her old wooden tub,  
He just sat by the stove and just let her rub,  
He didn't worry about it."

—Yankee Blade.

### "They Washed Out a Little Dead Baby."

"Did I ever tell you about the baby they washed out of a bank?"

My friend, Mrs. Strong, had just come down from the high Sierras, and I had already been listening all day to her stories of mining life; but I threw aside my worsted work and curled myself up on the lounge to listen again.

"And the singular part of it is, it was as natural and perfect as life—just like a wax model."

I expressed my surprise, but she was very much in earnest, and went on:

"It was a lost grave, in among the brush on the hill back of town. It had been grown up to pines and brush for years, and one forgets about lone graves in the mountains.

"Strong had been washing out the hill—they call it the Red Bank mine. That morning they washed out a little dead baby was quite exciting for Long Flat, it is so seldom that anything ever happens up there. Everybody in town crowded into the hotel; they thought the box was full of money, sure.

"It was in the spring after a warm rain, when the last snow was melting, and Strong and two hands were out there washing down things in a hurry. They were playing the water on full force, and every little while a young pine would come down. Strong saw the box start, but they couldn't stop the water soon enough, and it came sliding down with a cave of earth.

"The men thought they had found a buried treasure, and rushed after it, but Strong made them tie ropes around it and carry it into town.

"He intended to bring it to the house, but as he was following along he made up his mind that it was no treasure—it was too large and too light—so he let them carry it into the hotel. Half the town rushed in to see what they had."

I wanted to ask if it was a very large hotel, or a very small town, but refrained.

"Then there was the new boarder, a lady who had come on the stage the day before—"

"Who was she?"

"No one knew her then; but I think Strong knew her as soon as he saw her, though her face was partly screened by a veil; but she had lovely dark eyes that shone through, and pretty, refined features that one could not easily forget. She was crossing the porch, going for a walk when they came up. She always looks so stylish and genteel, at least we all think so," and my friend thoughtfully passed her hand over the sleeve of her own faultless attire.

"Go on about the box."

"Well, they set the box on a card-table in the barroom and pried off the cover. There was a plain, tight box inside, but it didn't look like a coffin, so they pried off the top, and there lay a pretty little child as perfect as life, and it had been dead fifteen years."

"Oh, no!"

"It is a fact; they all saw it. It was as round and plump as a live baby, and there was color in its cheeks, and its yellow curls and little white dress, and knots of white and blue ribbons, were just as when they were put in the ground. But the flowers in its hands were shriveled away."

"Was it petrified?"

"No; but you would have thought the people were, standing there looking at it, because no one knew about a child being buried on the hill.

"All at once that woman pushed the crowd aside and stood there, white as the baby's arm and trembling all over. She clasped her hands to hold them still; they heard her say:

"O my Rose, my Rose, my own baby!"

Then she lifted up her head and leaned forward calmly, and drew a white ribbon out of the bosom of the little dress, and, tied on to that ribbon, hung a beautiful diamond ring. She held it up and looked around at them all.

"I want you all to see that I took it out," she said.

"Then Strong came out of the crowd and took her hand, and spoke to her.

"I can testify, Mrs. Weldon," he said; "I know all about it. Don't you remember Will Strong?"

"She just nodded, and sighed, and shivered, and quietly fainted away.

"Will gave the ring to Hill, the hotel man."

"You just look that up in the safe," he said. "It belongs to her."

"They carried her into the parlor, and those who were in the bar-room said when they looked at the baby again, it had all changed and fallen away to nothing. Strong had them close it up just as it was, and they found a faded writing—Rose Weldon, aged 9 mos., 1873."

"Strong ordered a buggy and brought her up to our house. I asked Will why he didn't have her walk—she was able to. He said, 'Because she's Tom Weldon's wife.'

"I didn't know before that Weldon had a wife, but Will hushed me up and told me to do everything I could for her—and so I did.

"She cried gently all the afternoon; then at night she dressed up pretty and fresh in a white wool dress trimmed with lovely yellow lace, and went to the piano and played and sang—well, you never heard such music. And when we went into raptures over it, she took it very quietly.

"This is the way I make my living," she said. "The Catholic churches where I sing want good music, and they pay for it." Then she went on and sang little snatches from her church solos—such lovely things I never dreamt of before.

"When we went to our room that night, Will said: 'I've telegraphed for Weldon.'

"I took him by the throat. 'Now,' I said, 'I'll just choke you till you tell me all about her.'"

Mrs. Strong paused.

"Now, go on."

"It's a short and simple story. Sixteen years ago Tom Weldon came to Long Flat with his pretty young wife and baby, and commenced to build the White Ridge ditch, the one we own in now, you know. He was very proud of his wife, and built her a pretty home a little out of town on Red Hill.

"She had a piano, the only one in the mountains then, and when Von Wilder, a handsome young fellow, came up from Marysville to snore on the ditch, and brought a violin and a guitar, he soon took to spending his evenings on Red Hill. The only music in the country was what they two made, so I couldn't blame him much. Will says Weldon was furiously jealous from the first, and made her unhappy without the shadow of an excuse.

"One night he came home late, and found them singing together at twelve o'clock. Some say he struck her—anyway there was a furious scene; and the next night the baby died suddenly of roup.

"People said she never left it till it was covered in the ground; then she kept by herself and never complained. She didn't notice her husband or any one, poor thing.

"But Weldon acted like a fool. He accidentally met Von Wilder in the bar-room at the hotel, and Von Wilder was showing a fine diamond ring to a crowd. It seems Mrs. Weldon had one just like it—her engagement ring. Weldon rushed home like a madman and demanded it. The woman who was with her said she rose up cool as an icicle, and said:

"Tom Weldon, my engagement ring has gone where my heart is, and hope with it as long as you act in this way."

"That was all—nobody knew what that

meant. Weldon sold out his interest in the ditch the same day—that was easy done in those times—knocked Von Wilder over in the mud, but not to hurt him, and left town.

"There was a great scandal about her; everybody thought Von Wilder had her ring, and the little wretch denied it in such a feeble manner that no one believed him. She sold her furniture, took her piano, and went to San Francisco. The baby's grave was never marked. The house was moved down and became a part of the hotel."

"And Weldon?"

"Oh, he went down to the county seat, bought and sold mines; then he went to the railroad town of W— and had all the benefit of the valley boom. He's a rich man, been in the Legislature twice, and a popular man, too—they say he's as moderate as he used to be hasty."

"And he never applied for a divorce?"

"Oh, no!"

"And you telegraphed him the ring was found?"

"Yes; and he answered 'Hold her—I'm coming.'

"You can't keep anything still up there, and every one was on the lookout for the stage the next day."

"Every one in town and the country too," I venture to say.

"Yes, the miners straggled in, and the girls stayed home from school; but Weldon came through about two hours before the stage with his own team. He drove straight to our house, but there were three men there ready to take the horses. Poor horses—they had been driven nearly to death."

"But about him?"

"He was a fine-looking man, but as much too gray for forty as she looked too young for thirty-three."

"Never mind how he looked," cried I impatiently. "What did he do?"

"Strong took him straight down to the hotel and got him the ring, and there were plenty there to corroborate the story.

"Mrs. Weldon seemed glad to stay with me. She had come up to the old town to rest, she said, away from scholars and concerts, and if I would keep her, she would be so glad.

"Strong told me not to let her know what he had done till the last, but when I saw them start back from the hotel, I thought I ought to prepare her. She looked lovely; she had on a long, trailing dress of cream cashmere and black velvet, and she seemed so reserved and refined I hardly knew how to approach her.

"So I just put my arm around her waist and said, 'There is some one coming I think you know,' and led her to the front window.

"She drew in her breath, and caught my hand like a child, and dropped her head on my shoulder, and looked at them all the time as they came up the hill and along the path to the gate—it was just like holding a little, frightened, trembling bird in your hand.

"Tom Weldon looked very handsome and grand in his fine clothes beside my husband in his every-day coat, but I was very proud of my good Will just then, I can tell you."

"Yes—go on."

"Well, when they came to the gate, he looked up and saw her lying in my arms; then she shivered as if she was cold and drew herself up, and shrank into my white lace curtains, and there she stood proud and still when they came in.

"Will beckoned me to come out, but she caught my sleeve and implored me with a look to stay.

"Tom Weldon stood in the middle of the room holding his hat and overcoat.

"Then she turned to him quite calm and cool, and said with a world of bitterness in her voice:

"And did you find your ring at last? Are you convinced now? Why should I want your ring when you thought me untrue? I thought baby ought to keep it."

"Weldon looked so white and sad—he stretched out his arms and said so humbly, 'O Lily, my poor wife, don't speak to me so, but come—'

Mrs. Strong paused.

"And she went—"

"No, indeed she didn't; she was too proud for that. She lifted up her head, and her cheeks were like flame, and she said:

"I will never go to any man with a blackened reputation. Fifteen years ago, Tom Weldon, you made my name a byword up here. People will think no better of me for going back to you. I have a fair name below and I can earn my living. You left me—how dare you ask me back to revive my shame. Go, please."

"Weldon stood looking at her a moment, then he said quietly: 'Madam, I am your servant,' and turned and went out, and Will kept with him, and they went out the back way together.

"As soon as they were out of hearing she broke down completely, and came into my arms, sobbing and crying. I put her on the lounge and stayed with her.

"Oh, my poor Tom, my darling!" she would say. "He has been faithful all these years, and I love him so! Oh, my dear, my dear!"

"Then when I would want to go and get him she would stiffen up and say she wouldn't see him at all.

"The next day she was perfectly cool and firm, and we went down for the box and buried little Rose again in the town burying-ground.

"In two days Weldon had a stone-cutter up

from the city, and he must have spent a thousand dollars on that little grave before he was through with it."

"And she?"

"Oh, she staid quietly with me, and I took her for walks and rides, and tried to amuse her, but she failed constantly, and I was afraid she would die on our hands. Weldon sent up doctor after doctor, but she wouldn't see them."

"I think she was right."

"No, I think Weldon worked out a forgiveness, poor fellow. He stayed there at the hotel and showed that ring and ribbon to every old settler he could find; nearly everybody in the county knew about it, and people began to feel sorry for him. But he is too bright a man to do nothing, and it wasn't three weeks before he and Strong were driving over the mountains and he started the excitement about the Dry Valley irrigating ditch—that's helped our country a great deal.

"All this time he hadn't seen her, and he told Will one day that if he could only hear her sing once more he thought he could go away."

"So we planned it and got up an entertainment for the town hall. We had hard work to coax her to sing for us, but she finally consented, if Weldon wouldn't be there. So Weldon agreed to keep out of sight and we put her on the program.

"I forget what she sang first, but the crowd fairly went mad. They kept calling her out, and she sang the ballad 'Annie Laurie' and 'Bonnie Doon,' and that only made them worse. Then some one wanted 'Home, Sweet Home,' and they kept stamping and ohsering and calling.

"I was in the dressing-room with her, and she clung to me pitifully.

"I can't sing that here," she said.

"But the ladies fairly pushed her out. It was awfully cruel I think. Her voice began to fail and tremble on the second verse. She struggled through with the chorus, then I rang the curtain down. She was trembling so she could hardly walk.

"I was sure she was going to break down entirely, so I threw my circular around her and dragged her out the back door. It was completely hid by flags and evergreens, so no one knew in the confusion where we went. But Weldon must have known, for when she lifted up her face from my arm, there he stood in the moonlight, calm and handsome as ever, dear fellow. I don't wonder he is so popular."

"Then what did you do?"

"I didn't have time to do anything. They needed me inside, so I just put her in his arms and slipped back."

"Did she stay there?"

Mrs. Strong stretched out her long, shapely arms.

"I presume so. At least she was there half an hour after when I had a chance to slip out again."

"Weldon looked up at me.

"We've found 'Home, Sweet Home,'" he said.

"And I sometimes fancy," said Mrs. Strong, rising, "that the baby literally came to life to deliver up the proof of her innocence."—L. H. Shuey in *Overland Monthly*.

### Home Topics.

[Written for the RURAL PRESS by MAUDE S. PEASLEE of California.]

#### Mechanical Labor.

I well remember when I was a child and did not perform my simple duties satisfactorily, I was told to keep my mind on my work.

"No one can do good work with her head in the clouds," was heard so often that it remained with me for years as a sort of an axiom. Perhaps I was too fond of building fair castles in Spain, and of weaving for myself stories far excelling in splendor of detail the most gorgeous ones in my fairy tales.

I remember how hateful the drudgery of dish-washing seemed to me, and how impatient I grew when reminded that the sink was not clean; and how hard it seemed to me to have one of my loveliest day dreams broken in on by a voice questioning anxiously: "Did you scald the milk pans?"

My long-suffering aunt would probably, if here, remember that I usually answered vacantly, "I don't know. I can't remember."

Of course this was not as it should be, and yet—and yet—consider how I hated dish-washing. I remember thinking, with briny tears coursing swiftly down my cheeks, that I would probably live seventy years longer and have to wash dishes seventy times three hundred and sixty-five times three!

This bit of arithmetic so appalled me that I lost all power of retelling, even when a dear-leave relative, on ascertaining the cause of my grief, tried to console me by suggesting that I could drop one day for every leap year. I agreed with him meekly, but in the face of the thousands of times I seemed fated to gather up, wash, wipe, and put away the dishes, I took but little comfort in this rednotation.

It was years before I came to the comforting realization that I could work and think at the same time on foreign subjects, with no detriment to the result of my labors.

The knowledge, however, that would have comforted me so much in my season of despair, only came to me through experience, the dear teacher of whom we all must learn, it seems.

As I grew older, I had to "keep my mind



on "the new duties I was gradually gaining skill in; but it came over me like a flash one day that those parts of my work which long practice had made mechanical, might bear a powerful accompaniment of study, thought, and even, in a small way, of composition with them.

Since then I have been able to accomplish so much more than I used, and have seemed able to make nearly twenty-six hours a day out of my twenty-four.

From my own experience, then, comes a thought that may, perchance, help some one else.

Little children rarely work alone; their first efforts must be personally guided and directed. With a little care and patience they may be trained to make mind and body work together, yet independently of each other.

This training will, of course, need to be oral, and as much by example as by precept; and the mother will need to make herself quite young again to fit the capacity of the little mind for which she is striving.

The result to be attained will be slow in maturing. It is all life work with us in caring for these little ones. We cannot begrudge time and labor spent for their ultimate good, even if the benefit is not at once apparent.

#### An "Original" Autograph Album.

Counting many literary people among my friends, I had a strong desire to preserve some memento of their work.

Accordingly, I procured a large autograph album, square in shape, and resolved to devote it to such of my friends as would contribute some of their own efforts.

I avoided the manner and guise of an autograph fiend, and forbore to urge my friends beyond their own inclinations.

Most of them responded graciously, and a few wrote lines especially for the purpose, lines that were never printed.

Some friends who were skillful with the brush and pencil made my book, already beyond price to me, beautiful with the work of their willing hands.

One sweet friend, whose music came from her own pure soul, wrote a little melody especially for its pages.

I could not estimate the pleasure I have derived from my book, nor the admiration it has won wherever seen.

#### Chaff.

ELDERLY PARTY (who has just finished dining in New York hotel): Waiter, this here card says that dinner is served from five to seven. I've eaten everything on the list, and it's only six o'clock. If I've got to stay here until seven, you've got to get me a newspaper 'r a book 'r something.

"Now, Mr. Bronson, we want a Scriptural quotation for our church fair tickets. Can't you think of one?" asked the fair maid.

"Certainly," said Bronson. "How will 'A certain man fell among thieves' do?"

"How times have changed!" said Dr. Sarcasticon, as he paused in his discourse on the evolution of man. "In the Old Testament, it was a miracle for an ass to speak, and now nothing short of a miracle would keep one quiet!"

DOODLE: Did you not hear what I said, Miss Mabel? I said that I loved you—loved you with all my soul, my mind, my every thought. Miss Mabel: Yee, I know; but all that seems so little.

"GEORGE calls me his idol and says I shall never have to do anything but let him worship me." "Well, after you're married he'll find plenty for idol hands to do."

GUS: Poor Reguins got discouraged and blew his brains out. May: What an excellent shot he must have been!

A MAN who was eating a large raw carrot stopped a woman on the street the day after New Year's and said:

"Madam, could you give me ten cents to buy food with?"

"Why, you seem to have plenty," she answered.

"Raw carrot—see?" he said as he extended it.

"Yes, but don't you know that raw carrot contains 93 per cent of clear nutriment, against only 33 in mince pie or plum pudding. You ought to be thankful, sir—very thankful."

—EX.

HOW TO DECIDE THE "ALL-WOOL" QUESTION.—A fire test for wool is recommended by the *Lancet*. After separating the warp from the wool, hold each to a flame. No threads can be traced in the ash of wool, which burns to a shapeless mass or ceases to be size if removed from the fire before combustion is complete. Cotton, however, continues to burn steadily, and the shape of the thread is retained in the ash. Try it.

YOUNG WOMEN AND TIMBER CLAIMS.—Over 150 young ladies have taken up timber claims in Washington during the past six months. Several of these are recorded as being in Lewis county. Surely this is a good indorsement of the pluck of our Western daughters.

GOLD is very scintillating—that is, it can be out and shaved with a knife, like a piece of wood or horn, while pyrites and other worthless minerals will crumble under the knife-blade like a lump of sugar.

## YOUNG FOLKS' COLUMN.

### The Story of a Foolish Cat.

[Written for the RURAL PRESS by KATHERINA BRYANT NOLAN.]

His name was Punch, and he stood among the daisies and clover in the clear June sunshine, with his head held a little to one side in a listening attitude.

"W-row, w-row, w-row!" came to his quick ear on the fresh breeze, mingling with the lazy drone of a big yellow bumble bee, the shrill chirp of a cricket, and the whirr and buzz of a busy locust.

"It's Judy," said Punch to himself, giving his head a knowing shake as the wind blew a daisy against his little white nose. Judy, sure enough it was, and she came rushing along, anxiously sniffing the breeze and glancing warily from side to side until she saw Punch, then she stopped short and looked at him.

"How do do, Judy?" said he in a lordly fashion. For an answer, she pounced upon his long tail, gave it a sharp little bite, and then looked very much astonished because he lashed it angrily. Punch was a handsome kitten; his breast and forepaws were pure white. He had the air of a gentleman in a full dress suit and Judy was his sister. She was a gentle, sweet little cat, but she was not handsome. Her coat was short and uneven, of a dull and dingy mouse color, while Punch looked very glossy and dainty as he stood beside her in the tall grass.

There were six kittens altogether, and the five Lawton children had claimed one apiece and given Punch to Mrs. Graham, their next-door neighbor.

"Did you have your breakfast, Punch?" Judy asked when she was tired of jumping after his tail.

"Yes."

"I'm sure it was just awful to give you away, Punch. Some people never feed cats," said Judy.

"Oh, I can always find a mouse," answered Punch; "besides, I manage to keep on the right side of that cook."

Judy gazed down toward the brook with a far-away look in her eyes. It might be high-toned to live with a family who kept a cook, but she was satisfied to depend upon the five rollicking youngsters across the way for companionship and care. All this time, since reaching the piazza of the Graham residence, cook had been going on at a great rate, and it was really impossible not to overhear some things she said to her visitor.

"An' you ought to see Punch. An' he's the cute cat. Sure an' didn't I love the beefsteak oonder his nose an' he never touched it at all, at all. Sure I'd never be bothered with no cats before nor since, but that Punch he'd kill ye wid de laughin' when he plays wid his tail."

Punch sat and washed his face calmly and did not seem very sociable, so Judy went home to see her brothers and sisters and the five little Lawtons. Punch had an elegant cat basket with a soft blue cushion, and he soon fell into the fashion of spending a deal of time in it. He stretched himself out in a lazy way and slept with one eye open, while his mistress entertained her callers. Thus he in time knew all the neighborhood gossip, and became very well acquainted with the neighbors themselves. He was very sad when he heard that Mrs. Riskey's twins had the measles and whooping cough. Those twins were the delight of the gossips; everybody was so glad they were girls—boys were so rough—and they had been described so often as "little angels," that Punch was fearful they might die and plunge the neighborhood into mourning. The twins recovered, however, and came in state to visit Mrs. Graham, and he got out of his basket to chase his tail, he felt so glad.

"I really believe Punch loves babies," said his mistress. "He's generally too lazy to do anything but eat and sleep."

Then there was Mrs. Hall's sister's baby to worry over. When he first heard the story he did not wash himself for a whole day. Mrs. Hall's sister had married and gone out to the West Indies and had died. There was a wee baby left to the mercies of those natives, and his mistress was very much concerned as to the fate of this little relative of Mrs. Hall who often visited them, and often fretted over the infant.

Punch could sit up and beg, and sometimes when a visitor admired him he was hauled out of his basket and compelled to do this little trick, and this was not pleasant, especially when he felt blue. Once Mr. Graham came home with a homely yellow dog. He was a disagreeable barking animal, and Punch was very angry, so he flew at him snarling and spitting and there was a great row.

"Shnt 'em up together awhile; they'll fight it out and be good friends after that," Mr. Graham said with a sly twinkle in his eye.

"But you see, I don't like that dog," declared Mrs. Graham. "Where did you get him?"

"From one of the boys in the store. He has some good blood in him. He'll make a fine watchdog," the gentleman answered.

"But I don't like the dog."

"Very well, my dear," said Mr. Graham, "you needn't have him. I will give him away."

Punch was relieved to hear this; still he felt sulky and he continued to indulge his ill

humors and little worries until they grew on him. His mistress cared less and less for him as time went on, for he lashed his tail, glared his eyes and showed his claws at the slightest provocation to everybody.

On a fine day in September, Mr. Graham brought home a Skye terrier. He had long, silvery hair and a little black nose.

"What lovely eyes he has!" said Punch's mistress, putting the long locks aside as she looked at them. "Where did you get him?" she asked.

"Bought him."

"I think I like him. We'll name him Sancho."

Punch flew upstairs at that and howled dismally from the corner where he had taken refuge, and when called he only howled still louder. He would not be consoled and was perfectly determined not to accept the intruder upon any terms. Sancho did not mind him the least bit, however, and he soon found this dog had come to stay, so he just walked down the path and out of the gate. He had decided to run away and find a home among pleasant people who had sense enough to dislike dogs and keep them at a distance. He trotted briskly on, lashing his tail with wrath, and struck straight across the fields and through the pine woods until he reached a fine-looking house. He entered the yard cautiously, but there was no sign of a dog anywhere, so he went up to the side door boldly.

"Oh what a lovely cat!" said a young girl who came to the door just then. "Here kitty, kitty, kitty, come in, kitty! Why, it's Punch Graham. We must get him in here and take him home! Mrs. Graham thinks a great deal of him!"

Alas for Punch and his vision of a pleasant home at this place! He rushed away from the door and up the road on hearing this. The dogs came out and barked at him. It grew cold and dark, so at last he went to bed under an old barn without any supper. He did not care much, he felt so angry at all the dogs and at the world. Having started out as a tramp-cat, it was not so easy to reform. He got up the next morning, crawled forth from his hiding-place, and stole a chicken for his breakfast, when a black cat came along and wanted it. Punch's blood was up and he proceeded to a fierce combat with the black cat in which he received severe injuries; afterward the black cat ate the chicken up and Punch gazed wrathfully out of one eye at the big bunches of his fur which the wind blew hither and thither.

He was now ashamed to go home and so he prowled about and became quarrelsome with even his own race. He lived in the fine State of Massachusetts, but when winter came he died a miserable death of starvation. The cold and snow and sleet chilled him through and through and there were no chickens or field mice to catch. He was a most foolish little cat to run away from home, just for a dog, if he had only known it.

Judy raised a lovely family of kittens the next year and Sancho barked at them time after time, but that didn't hurt them the least bit that ever was.

## DOMESTIC ECONOMY

### Cooking and Kitchen Conveniences.

[Written for the RURAL PRESS by CARRIE E. ROBINSON.]

As a branch of education, cooking has, of late years, attracted much attention both in England and the United States. Cooking has now come to be considered one of the "fine arts," a fine and cultivated taste being as necessary in the preparation of food as in the furnishing and decoration of parlors. Chemistry has done much to make the work of the cook interesting and in elevating the work and the worker.

Rusklin, when asked what cookery meant, said: "It means carefulness and willingness, watchfulness and readiness in appliances; it means the economy of your great-grandmothers combined with the science of modern chemists; it means much tasting and little wasting; it means English thoroughness, French art and Arabian hospitality."

Very true were the words of the lady who said: "Our women wield more power with the cooking-spoon than they ever will with the ballot."

Our kitchens should be considered the most important rooms in the house, since from this room emanates what must most influence the physical comfort, and through this the mentality of every member of the family.

The power of mind over matter is great, but I much doubt if any modern Alexander would go forth, serene, to conquer nations from an ill-served breakfast of muddy coffee, soggy oakes, scorched potatoes and tasteless steak, which lay in his stomach like so much sole leather. Nor can you expect any great accomplishment of mental labor when half the nerves of the body are acutely suffering from distress of the digestive organs.

Indeed, the food prepared and served at some of the tables in our land would make the plumes of the ostrich droop and fade; but better times in this regard are dawning—indeed, we may say are already here.

All over our land cooking schools are being established, and women, even those dainty ones born and bred in luxury and ease, are laying aside the sensational novel or the abstruse

work of science, and are giving of their time, money and influence, and in some cases, doing actual labor to forward the work of education in this branch.

The size and location of the kitchen, the materials of the floor, the arrangement of the doors and windows, and the arrangement and kind of furniture, are the much-discussed questions; but wherever your kitchen, be it small or large, and be your means much or little, have its arrangement such as will be the greatest saving of time, strength and steps for the worker therein. In this is there the greatest economy.

There should be plenty of good fuel in the most convenient location. A good pump to bring the water from the cistern or well, if that be soft, into the kitchen sink, from which there should be a perfect conductor for the waste water. The opening into this should be covered with a perforated cover to prevent the passage of such things as have no business in a waste pipe. Good screens at the windows and doors; these last should be closed by good springs, more elastic and prompt even than the omnipresent and festive fly.

In furnishing this room many may feel that the best tools cannot be afforded. This is mistaken economy. Better do with less in the parlor, or save in the furnishings of the rest of the house, than to do without whatever will save labor in the kitchen.

It is within my remembrance that a feather from a goose wing, or at best a steel fork, was the instrument with which the whites of eggs were whipped into lightness; the time consumed and the aching arms and weary shoulders of the housekeeper, or the unlucky child pressed into this service, seems appalling now in the light of the many excellent patents for whipping the translucent albumen into the lightest foam in the shortest possible space of time.

There are many little tools, whose cost is small, for lightening labor and enabling one to put the work of many minutes into one, and making disagreeable work pleasanter as well as lighter.

A thoroughly good cook stove of coal or wood in winter, and never forgetting the gasoline stove for summer, are the first requirements. One who has never used a gasoline stove can have no realization of the great convenience, comfort and the lessening of labor there is in the use of one. If economy of fuel were no consideration, so that one could keep a heater in the kitchen and use gasoline only for cooking purposes, it would keep many wrinkles from the brow of the mother and housekeeper, and very possibly the father of the family also, if he is the one who doesn't let "Maria" start the morning fire. A sufficient number of good light cooking utensils comes next in order. Those called granite ware are best, and if the best quality is obtained, they last well; not as long as the old-fashioned iron ones, perhaps, but the saving of strength in handling is great, and food of all kinds cooked in the granite ware has a nicer flavor and color. Again, the granite ware is used without removing the covers of the stove, therefore the sooty bottoms of the saucepans and kettles, which are such a bugbear to the dish-washer, are avoided. I say, blessings on the man who invented the granite ware. He deserves a chromo of the largest kind.

It saves time and temper to have a sufficient supply of cooking utensils, that there may be no need of stopping to wash certain ones for a second service until the time for washing all the dishes arrives. Do not fail to provide two large dishpans, one for the washing and the second to scald the dishes in, ready for wiping, nor forget to provide an abundance of suitable wiping towels, never failing to have some of the soft linen ones to wipe the glass ware and silver, as it is quite impossible to make these look nicely if you use a fuzzy towel. Good crash for common dishes is satisfactory, especially after they are well "broken in."

A variety of dishcloths is a necessity also, using one for only the glass and silver, and perhaps the china or table dishes, and another for the coarser ware, tins, cooking utensils, etc., and do not forget the iron dishcloth, which is such a saving of time, temper and finger-nails in washing sticky or scorched dishes. There is also a little flat-brush of wood fiber, which is of the greatest service in this branch of dish-washing. These brushes come in different sizes and are useful for so many purposes. One should always be kept to clean the vegetables, a larger one to scrub the sink, and these used only for the purpose for which they are provided. A little rack, or drainer, should be placed in or over a corner of the sink, whereon these should be dried after using. Near them should be a hook for the iron dishcloth.

As wall room is always more plenty than shelf room, it is best to hang up everything you can, and in such places as shall be most convenient, so as to save every possible step.

Make the kitchen as pleasant and sunshiny as possible, and provide shades for shielding from the summer sun also. In this room the housekeeper, who is not infrequently the mother of the family, must spend not less than two-thirds of her waking hours, and with her must of necessity be the little ones for a great portion of the time.

Surroundings go very far toward influencing the lives of human beings—the wisdom of making things as bright as possible in this room.





A. T. DEWEY.

W. B. EWER.

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[NEW THIS ISSUE.]

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Vineyard Harrows—Baker & Hamilton.  
Farm and Dairy Machinery—G. G. Wickson & Co.  
Cultivators—S. W. Luitwiler, Los Angeles.  
Orange and Lemon Trees—Fred. C. Miles, Penryn.  
Books—Henry Carey Baird & Co., Philadelphia, Pa.  
Cattle and Hogs—J. P. Thompson, Napa Junction.  
Nursery Stock—D. Turner, Arizona.  
Horticulturist Wanted—F. F. Adams, Fallbrook.  
Tomato—Peter Henderson & Co., New York.  
Pruning Shears—Alling & Lodge, Madison, Ind.  
Trees—Wm. Parry, Parry, New Jersey.  
Onion Seeds—The Mesa Seed Co., Salt Lake City, Utah.

See Advertising Columns.

## The Week.

The talk is still of the weather, but in such a different strain. Old Uncle Cycloone and Anti-cycloone for once seemed to pull together and the result was that they pulled one of the wettest storms out of the Japanese current which has lately been made up in that famous storm factory. The way it did rain on Sunday was a joy beyond the figures of the arithmetic to measure, as a legislator is reported to have wisely said.

Many points report a downpour of from three to six inches for the single storm, which brings the rain record to respectable figures at one bound. The storm was wide, as well as deep, and all parts of the State were generously visited. The result is a quick increase to repins and apprehensions, and an uprising of confidence so strong that storekeepers have restored credits and bankers have unlocked their vaults.

The outlook is certainly now for a year of

great production. The rain comes just at a time when with the season of warm weather the plants will turn every drop to good account and ordinary late rains will enable them to finish up their work handsomely. Considering the great sowings and plantings which the long clear season made possible, the assurance of adequate rainfall becomes the warrant of a weight of produce than which the State has never seen greater.

## The Chance in Beef Cattle.

We notice that our exchanges from the range regions of the interior are urging stockmen to efforts to rebuild the herds which a period of low values followed by a winter of disastrous severity had decimated. According to our own knowledge of the facts and forecast of the future, this advice seems well grounded. The country must have meat for its rapidly advancing population. The great rush into range industry naturally resulted in over-production, the reaction came with a vengeance aided by the terrible winter of 1890, and it seems a fair conclusion that the cattle census has now been reduced below the probable requirements of the immediate future. It may not be desirable to plunge into such ventures as men plunged a few years ago, in fact the lessons of experience are all against it, but this does not argue against restocking the ranges upon a more conservative and wisely contrived plan. The following is from the Yuma Sentinel:

Shall we raise more cattle? What shall we do with those we already have? Is the present a safe time to invest in cattle? are questions daily heard, and they are of the most vital importance to the live-stock growers of Arizona. Our cattlemen are of the opinion that for several years the prospects have not been as encouraging as they are at the present time. Values are very low indeed, probably on the hedlock. No one believes they can go any lower. The heavy losses of last winter, in all of the colder northern portions of the grazing regions, where the snow was deep and the storms terribly severe, created a shortage of more than 5,000,000 head of cattle. By some it is estimated at not less than 10,000,000. On account of the losses in the herds, as well as the drainage of the surplus by shipments abroad and the consumption at home, there has been a heavy decrease in the number of cattle in the United States, while the demand for beef is constantly on the increase. Less cattle were taken into market in 1889 than in 1886, by more than 2,000,000, as shown by the records. The increase will be very slow, comparatively, with that of ten years ago, from the fact, as may be seen by the statistics, that 300,000 cows and heifers were slaughtered last year and hence are not available for breeding at the present time.

Five hundred thousand head of calves have been butchered in the last two years, and not less than 1,000,000 heifers have been spayed during the same time, hence the shortage which must be felt for at least the next five or six years. The shortage of available cattle for the present, or immediate future market, extends all over the East and begins to be felt in the States and Territories west of the Mississippi and Missouri rivers, and is, no doubt, the cause of the present advance, not only in beef cattle but in good feeders, also in the price of range stock.

The heavy shipments from the Indian Territory have had some effect in staying the advance in prices, but this is only temporary. With heavier weekly receipts than ever known, present prices in Chicago and other markets have held their own fairly well. Three-year-old fat steers, good, beef-matured cows are not made to order, or in a day, hence we believe that we are safe in advising our live-stock growers to invest in cattle. Young men, you who have fair herds as starters, do not sell them. Hold on to them, and five years from to-day you will see that your heads were level.

This is good advice, providing the young man will not go faster than his resources warrant. Generally speaking, something should be done toward breeding better cattle and handling them upon a more humane and business-like plan. Good blood can now be obtained very cheap as compared with prices which prevailed a few years ago, and breeds have been introduced which show their ability to thrive under ordinary range conditions. But the cattle-growing of the future will tend farther and farther away from the dangerous old policies. Fewer cattle better cared for and protected will be the new order. Provision for winter feed and shelter will be more thought of. There may not be the vast gains and the vast losses of the earlier years, but there will be a safer business and surer net returns. In this line of progress we believe there is room for effort and investment which promise well.

THE RUSSIAN GOVERNMENT is building an enormous ironclad of 12,480 tons.

## California Malt.

The excellence of California barley, especially the heavy, bright, brewing barley which is chiefly produced in the valleys south of the bay of San Francisco, is well known throughout the United States. Every year there are considerable Eastern shipments of our brewing barley to the Eastern States, where it competes with the traditionally fine barley from Canada, both Canadian and California barleys being superior for brewing purposes to the product of the Atlantic States. It is now thought possible that a more systematic and extended distribution of California barley may be made in the form of California malt. There is a malt-house now being constructed in Santa Clara county which it is calculated will cost a quarter of a million. It will have a capacity of 1500 cisterns per day, and when finished will be the largest and best equipped malt-house in the United States, and that he will make the best malt the builder is doubly assured by the fact that he will have the rich grain of the Santa Clara valley to draw from.

What will be done with this great output of malt is described by the builder of the malt-house as follows:

The product of this establishment will give us enough malt to supply our own breweries here in San Francisco and there will be some for shipment to the East. If we find, as we hope to, that the exportation of malt to the Eastern States is profitable, just such another building as this will be started here, so that in all likelihood hereafter instead of shipping barley to the East we will ship the prepared malt, which will develop into an important industry. We expect to draw our entire supply of barley from the Santa Clara and Salinas valleys—the best on the coast for brewing purposes.

The work on the structure is being pushed vigorously and will be completed by June, when it will become one of the most important factories in Santa Clara county. The success of such enterprises will probably be of advantage to our barley-growers and may open a trade the extent of which cannot be foreseen.

## Why Pyrethrum Kills.

As the Dalmatian insect powder plant is grown nearly everywhere in this State and is produced in large commercial quantities at the buhach ranch in Merced county, it may interest many to know just what there is in the plant which makes its presence so deadly to insects. The active principle of pyrethrum flowers is said to be an acid (pyrethrotoxic acid) soluble in alcohol, amylic alcohol, ether, and chloroform, which may be isolated by means of ether, after having been converted into an alkaline salt and decomposed by tartaric acid in aqueous solution. When this acid was hypodermically injected into animals, it was observed that the poison produced its effects in two distinct stages. In the first there was an excitement more or less pronounced, proportional to the quantity administered; in the second there was a complete prostration, accompanied always by paralysis of the lower extremities, which might disappear after a time, or be the precursor of a fatal issue, the respiration and circulation being effected only in the latter case.

Fortunately, to get its work in upon a flea or other small game, the powder is not reduced to the necessity of going around all these scientific curves, but makes a crosscut and gets there just the same. To effect the larger animal it apparently has to be doubly concentrated in the way described above.

"AFRICAN BASS" is the name given to a fiber obtained in the colony of Lagos from the bamboo palm. In appearance it is stiff and wiry, varying in color from dark brown to light red, and dependent for its shades on duration of soaking. It is most readily obtained in lengths of from three to four feet, beyond which length it is inconvenient to pack and difficult to procure without injury to the tree. In diameter it varies from one-sixteenth to one-thirtieth of an inch, the latter of which may be accepted as the limit of fineness to be admitted in a commercial sample for the European market. It is said to be used mainly in the manufacture of hard brushes for various domestic and manufacturing purposes. The demand appears to be very large, and the price is exceedingly satisfactory. The source of its supply in Lagos alone may be said to be practically inexhaustible.

## Horticulture at the World's Fair.

As it has been announced that Director-General Davis of the World's Fair is disposed toward the appointment of a Californian as chief of the Bureau of Horticulture of the exposition, the State Board of Trade at its meeting in this city on Tuesday passed resolutions indorsing Gen. N. P. Chipman of Red Bluff "as one well qualified by knowledge and experience to fill the position." Gen. Chipman is practically acquainted with California horticulture, both by reason of his own investments therein and by his thorough study of the subject. He has also had much experience in public affairs and is calculated to succeed in the work for which he has been nominated.

There has been considerable objection at the East to the plan for the classification of the horticultural exhibits which was adopted by the National Commissioners at the earnest solicitation of the California Representatives. This classification gives great prominence to orchard and vineyard products and less to other horticultural branches. The Eastern horticulturists are endeavoring to change the scheme already adopted to meet provisions which seem to them more desirable. It is perhaps unavoidable that this issue should have arisen, but we see nothing in it which cannot be finally arranged to give all interests a fair showing and to permit each part of the country to fully shine in the light of its own products.

## An Anti-Pest Bill.

The Legislature does not seem to be making much progress with desirable legislation, but many horticulturists will be interested to hear that the Senate has passed a bill which provides that it shall be the duty of the Board of Horticultural Commissioners in each county, whenever deemed necessary, to cause an inspection to be made of any orchard or nursery, trees, plants, vegetables, vines, fruits, or any fruit-packing house, storeroom, salesroom or any other place or articles in their jurisdiction, and if found infested with scale insects or the codlin moth, or other pests injurious to fruits, plants, vegetables, trees or vines, or with their eggs or larvae, shall notify the owner or person in charge of said places that the same are infested with said insects or other pests, or their eggs or larvae, and they shall require such persons to eradicate or destroy said insects or pests, eggs or larvae, within a certain time to be specified.

We shall have the full text of this measure if it should become a law.

THE RESEARCHES OF EMINENT BACTERIOLOGISTS and the discussions lately held regarding the causation and prevention of tuberculosis and other diseases have invested with profound interest the question of the relations of the diseases of lower animals to those of man. At the International Congress of Hygiene and Demography, to be held in London next August, a section will devote special attention to the infectious, contagious, parasitic and other diseases communicable from animals to man, and vice versa; the methods of the propagation of diseases affecting mankind by means of animals and animal products; the infection of meat, milk and other comestibles, and the restrictions to be placed on the sale of infected food and the movement of infected animals. A number of the high authorities in the medical, veterinary and agricultural world are expected to participate and throw light on investigations that are of great importance to the welfare of mankind.

DEATH OF GEN. SHERMAN.—Gen. W. T. Sherman, the last of the three great Northern generals of the war, died at his residence in New York City on Saturday afternoon, February 14th. He had been ill for several days with pneumonia, and his end was quiet and peaceful. He was born in Ohio, February 8, 1820. He was a pioneer Californian and resided in San Francisco until 1857. Gen. Sherman will be buried in St. Louis. His death has called forth exceptional tokens of regret and of respect for his memory.

We expect to issue, next week, an edition of the RURAL PRESS especially devoted to the Southern Citrus Fair, in which horticultural matters will naturally hold a leading place.



# FLORIST AND GARDENER.

## Spring Show of the State Floral Society.

The third annual spring exhibition of the California State Floral Society will be held in San Francisco, May 6th, 7th and 8th, 1891, the place of exhibition to be fixed hereafter. The attention of exhibitors is particularly called to the rules and regulations governing the exhibition, which are given in full below. Each member of the society is earnestly requested to make an exhibit either for competition or display. Even a single plant or flower, if meritorious, will be given a place in the exhibition.

### Premium List.

#### CLASS A—CUT FLOWERS.

#### I. Open to Amateurs Who Do Not Employ Skilled Labor.

- 1—Roses, largest and best collection, silver medal; 2—Roses, second largest and best collection of cut blooms, bronze medal; 3—Roses, best twelve cut blooms, certificate; 4—Camellias, largest and best collection, certificate; 5—Carnations, largest and best general collection, silver medal; 6—Carnations, twelve best cut blooms, in twelve distinct varieties, certificate; 7—Cut Flowers, best general collection in society's glasses, each variety in a separate glass, silver cup; 8—Cut Flowers, second best general collection in society's glasses, each variety in a separate glass, certificate; 9—Geraniums, largest and best collection of cut blooms, \$3; 10—Geraniums, twelve best cut blooms in twelve distinct varieties, \$2; 11—Pansies, best collection, bronze medal; 12—Pansies, second best collection, certificate; 13—Pelargoniums, largest and best collection of cut blooms, \$3; 14—Pelargoniums, twelve best cut blooms in twelve distinct varieties, \$2; 15—Sweet Peas, largest and best collection, certificate; 16—Clematis, largest and best collection, certificate.

#### II. Open to Amateurs Who Do Employ Skilled Labor.

- 17—Roses, largest and best collection of cut blooms, silver medal; 18—Roses, second largest and best collection of cut blooms, bronze medal; 19—Roses, best twelve cut blooms, certificate; 20—Camellias, largest and best collection, certificate; 21—Carnations, largest and best collection, silver medal; 22—Carnations, twelve best cut blooms in twelve distinct varieties, certificate; 23—Cut Flowers, best general collection in society's glasses, each variety in a separate glass, silver cup; 24—Cut Flowers, second best general collection in society's glasses, each variety in a separate glass, certificate; 25—Geraniums, largest and best collection of cut blooms, \$3; 26—Geraniums, twelve best cut blooms in twelve distinct varieties, \$2; 27—Pelargoniums, largest and best collection, \$3; 28—Pelargoniums, twelve best cut blooms in twelve distinct varieties, \$2; 29—Clematis, largest and best collection, certificate.

#### III. Open to Professionals.

- 30—Roses, largest and best collection of cut blooms, one specimen of each variety, silver medal; 31—Roses, second largest and best collection of cut blooms, one specimen of each variety, bronze medal; 32—Camellias, largest and best collection, certificate; 33—Carnations, largest and best collection, silver medal; 34—Geraniums, largest and best collection, \$5; 35—Pelargoniums, largest and best collection, \$5; 36—Sweet Peas, largest and best collection, certificate; 37—Clematis, largest and best collection, certificate.

#### CLASS B—PLANTS.

#### I. Open to Amateurs Who Do Not Employ Skilled Labor.

- 38—Azaleas, best collection in bloom, \$5; 39—Flowering plants in bloom, largest and best collection, silver medal; 40—Flowering plants in bloom, best 12 plants, bronze medal; 41—Foliage and decorative plants, largest and best collection, \$5; 42—Rex Begonias, largest and best collection, certificate; 43—Tuberous-Rooted Begonias, largest and best collection, bronze medal; 44—Coleus, best 12 plants in 12 varieties, \$2; 45—Ferns, largest and best collection, \$5; 46—Ferns, best single plant, certificate.

#### II. Open to Amateurs Who Do Employ Skilled Labor.

- 47—Flowering plants in bloom, largest and best collection, silver medal; 48—Flowering plants in bloom, 12 best plants, bronze medal; 49—Foliage and decorative plants, largest and best collection, \$5; 50—Rex Begonias, largest and best collection, certificate; 51—Tuberous-Rooted Begonias, largest and best collection, bronze medal; 52—Ferns, largest and best collection, \$5; 53—Ferns, best single plant, certificate.

#### III. Open to Professionals.

- 54—Roses in pots, best collection, \$5; 55—Azaleas, best collection in bloom, \$5; 56—Tuberous-Rooted Begonias, largest and best collection, bronze medal; 57—Ferns, largest and best collection, \$5; 58—Flowering plants in bloom, largest and best collection, \$10; 59—Foliage and decorative plants, largest and best collection, \$5.

#### CLASS C.—OPEN TO ALL COMPETITORS.

- 60—California wild flowers, largest and best collection, \$10; 61—Fuchsias, best collection of plants in bloom, certificate; 62—Bulbous and

tuberous rooted plants in bloom, including out blooms, largest and best collection, \$10; 63—Rhododendrons, best display of plants or blooms, \$5; 64—Foliage, flowering and decorative plants, most meritorious general exhibit, first prize, \$25; 65—Foliage, flowering and decorative plants, most meritorious general exhibit, second prize, \$15.

#### SPECIAL PREMIUMS.

- 66—For the largest and best collection of Tea Roses, cut blooms, by E. E. Smith, \$25; 67—For the largest and best collection of Pelargoniums in bloom, by Thos. A. Cox & Co., seed merchants, \$10; Best 12 out blooms of roses in 12 distinct varieties, not entered as a collection for any other premium, by Fruitvale Rose Company; 68—First prize, twelve choice rose bushes; 69—Second prize, six choice rose bushes.

#### RULES AND REGULATIONS.

1. All articles for exhibition must be properly entered, and be ready for examination by 2 o'clock P. M. on the opening day of the exhibition.
2. All flowers and plants entered for premiums must be properly labeled and named as far as practicable.
3. Plants offered for competition shall have been the property of the exhibitor for at least three months prior to the exhibition.
4. Flowers for competition must have been grown by the exhibitor.
5. No cards of business nature will be allowed in the exhibition until after the premiums have been awarded.
6. Cut flowers exhibited shall be accompanied by some of their foliage and buds.
7. The Committee on Awards is authorized to award suitable prizes for any meritorious exhibit not named on the premium list.
8. No prize shall be awarded for any articles on exhibition unless they possess points of superiority.
9. In no case can any article placed on exhibition be removed until after the close of the exhibition.
10. Any plant or flower placed in a collection competing for a certain premium shall not compete for any other premium.
11. Express charges upon packages of plants or flowers, intended for exhibition and coming from a distance, will be paid by the society upon previous notification to the chairman of the Committee of Arrangements.

For further information address Committee of Arrangements, Mrs. Austin Sperry, chairman, 2100 Pacific avenue, or Mrs. C. Hohwiesner, secretary, 1920 Washington street.

### Time of Local Blooming.

EDITORS PRESS:—Would it not be a good idea to revive a suggestion made some time ago in the PRESS, that the different sections of our State keep the PRESS posted as to the time of blooming of our wild plants, and possibly of our cultivated plants? Comparisons of the statements made in such a record would have a manifold value, not only to those who might be seeking certain locations on account of temperature, but knowing relative climatic characteristics one would be assisted in determination of suitable plants, fruits, etc., for local planting. The native plants of any section are a far better guide to a comparative knowledge of climatic conditions than the most carefully kept thermometrical observations.

Again, plants in their native State bloom earliest and thrive best in locations best suited to their development, where soil as well as climate favors.

There is this difficulty in the way of our project, viz., that many plants will be called by as many names as they have locations. This difficulty can be met by the PRESS by giving the botanical name and the more general common names.

This would necessitate the sending of pressed specimens of flowers, leaves and fruits (seed vessels) where practicable. Frequently the specimens could be sent in the letter, but in case they could not, a one-cent stamp would suffice for each two ounces in weight of each package.

The work suggested might be carried still further and do what our schools are so strangely neglecting to do, viz., make botany, as the actual study of plant life, the medium for the development of the power of observation, which is the only true basis of a real education. With the editor's permission, more in this line of thought will be presented in the future.

The writer of this article would be glad to receive communications and specimens in the line suggested from any readers of the RURAL PRESS, and particularly from those living in the foothills of the Sierras. Communications may be addressed to Box 90, Gonzales, Monterey Co., Cal.

A. L. LIANCE.

[We heartily approve of the suggestions made by our correspondent, and we hope our readers will take active interest in his proposition so that it may be made widely successful. Our correspondent writes under a *nom de plume*, but we hope he will soon appear in his true style. He is a botanist fully able to discharge the work he undertakes. Let all who are attracted by his offer avail themselves of it, and the results will appear in the RURAL for the entertainment and instruction of all.—EDS. PRESS.]

### Edging Plants.

[Read by Mrs. C. HOHWIESNER before the California State Floral Society.]

One would scarcely believe that Nature had provided us with such a multitude of plants, each variety of which possesses its own peculiarities that make it desirable for edging or bordering. It seemed so easy, a month ago at our last meeting, to name and praise one variety suitable for this purpose; but when on returning home I happened, in passing through our little garden, to notice some bright cowslips peeping out from their green foliage, and, on another side, double white violets ready to bloom into sweet fragrance at the first kiss of next day's sun, I suddenly remembered so many, many others that had the same advantages that I decided to consider several of our bordering beauties and leave it to you others to decide which are the best.

I never knew the name of the little vine I would like to have more widely known, nor can I say where it is at home. It seems to adapt itself to any place given it, and to thrive well in sun or shade, though I do think it loves warm locations. The leaves are indented, fern-like, and are put forth in great profusion. It has no perfume, but is very graceful in its growth, and the way in which its flowers alternate with foliage and buds to the end of the branches is quite charming. All through last spring, summer and fall, its delicate sprays were covered with their tiny, daisy-like, pink and white flowers. Each branch, as it touches the ground, rapidly puts forth new roots, forming innumerable plants that can be removed without difficulty or injury to the mother plant. I have never grown this little vine as a border before, but think it will become my favorite, as besides all its other good properties it will bravely withstand ill treatment, spading off, etc. Snails gather beneath it, as they do in all borders; but they seem to dislike the foliage, for it never seems eaten away, as is so often the case with that of other edging plants.

Everybody knows the sweet, fragrant violet, its lovely green leaves through summer and fall, and the graceful blooms that gladden our hearts in winter and spring. The violet has always been my favorite flower, but I have had a slight grudge against it lately, as all the care I have bestowed on the numerous plants we possess would not induce the buds, that looked so promising, to bloom. Violets seem to grow best in loamy soil under oak trees, sheltered from the hot rays of the sun, but who has wide-spreading oak trees in San Francisco? When planted in a border, the suckers should be often removed and the old plants taken up, divided and replanted every fall. In Europe, and especially in the very south of Germany, the yellow cowslip grows wild, covering meadows and hillsides in spring, filling the air with its delicate fragrance. From these have originated the many-colored cowslips we know here, which, though old-fashioned, are very pretty if well grown, and very desirable for edging, as their foliage is evergreen, like that of the daisy. *Ballis Perennis*, or daisy, grows like a weed, if left to itself, but will always be liked. There are pink, crimson, white and variegated ones, white and pink doing best.

*Armenia rosea* is very desirable growing in orderly little hedges with fine leaves like grass, and bearing many small pink flowers all through spring and summer, these growing about three inches higher than the foliage. *Armenia*, as well as the daisy and cowslip and *Echevaria*, should be divided at least once a year, as they multiply very quickly. *Echevaria*, in its many varieties that resemble each other very much, seems to grow all over the world. I have found it on the highest mountains in Switzerland, on the Rocky mountains, Sierra Nevada, and on the rocks by the sea, both here and in Europe. Some call it the Hen and Chickens, and perhaps it is better known here by this name. *Auricula* is very pretty, but not well known here. It blooms in spring and summer. Its blossoms resemble those of the cowslip but are more delicate in texture and color. Its foliage is smooth and strong and of a whitish-green.

In selecting an edging plant, the place it is to adorn should be considered. Daisy and cowslip look well around a lawn, and *gazzania splendens*, with its bright, black centered, orange blossoms that close at night, looks very striking, but *Armenia rosea*'s glossy leaves would hardly contrast enough, and show to better advantage around beds of roses or carnations. Some like Ivy and Vinca, or Periwinkle trained into a border, and they look very well around a shrubby corner in a large garden or surrounding a bed of ferns. Whoever is fond of straight, long, unbroken lines, will admire a border of Boxwood, which when once well established makes (perhaps) the closest, most impenetrable border, if cut and trimmed two to three times annually. *Lanrostinus* is also used for edging, but I only like it in a place where it can be allowed to grow as a hedge two feet high and show its exceedingly pretty flowers. If kept shorter it would have to be cut very often, as it grows rapidly. There is a perennial forget-me-not, *Omphalodes verna*, that has dark-blue flowers that appear in April. It is of a dwarf growth than the forget-me-not generally planted and consequently more desirable for the purpose of edging.

*Pyrethrum aureum*, or feverfew, is too well known to need description. Its small, white, double flowers grow in clusters, the foliage being of a decidedly yellowish shade. *Mesem-*

*bryanthemum* has fleshy foliage, the flowers are rayed of a rich, purplish red, with delicate white stamens. There are few flowers as delicately shaped and molded as this, and it will be a surprise to every one looking at it closely for the first time. There is also a white variety, and a number of small, flowering sorts in various shades. It does very well as a border, but San Franciscans seem to admire it most when grown in large vases on their front steps.

*Lobelia*, some fancy leaved geraniums and *Salvias* are also desirable. Golden Thyme and curly parsley, if kept from blooming and going to seed, are both ornamental and useful. Besides these, there are a number of moss-like growths that we all have seen and admired, but I am not familiar with their names. We have tried Strawberries as a border and find them a grand success when they can be given enough water during their blooming and ripening season, for they, like all afore-named plants, make a good border and are really very tempting, especially to the small boy passing by, when their ripe, red fruits glitter from beneath the dark leaves. All these plants I have named are perennials and do well enough if left to themselves; but a little extra care, a little time and trouble devoted to them, will always be repaid. To do well they should be lifted, separated and replanted into well-worked ground every year. Among our annuals there are a large number suitable for borders, the best being pansies, *milgonette*, forget-me-not, dwarf nasturtiums, phlox. In a different way there is also a considerable amount of work and labor attached with the growing of these flowers; but, in every condition of life, for everything we undertake, we are prepared to toil in some way to gain the desired result; so can we reasonably expect success in our gardens without some exertion on our part?

## THE ORNITHOLOGIST.

### Song Birds.

[An essay by C. S. AIKEN, read at the California State Floral Society, Feb. 13.]

Exactly what a paper on song birds, or birds of any kind, has to do with a floral society meeting it is possible many bearers are curious to know. No attempt at a definite answer will be given. The amateur gardener and lover of flowers asks for no reason for the presence of the humming-bird on the honeysuckle or jasmine, or for the meadow-lark hopping about in the violet patch. It seems a part of the eternal fitness of things that birds and blossoms should be associated together, and many are the artists and many the poets whose works have given recognition to this plan of nature. It may be fair to assume, then, that flowers and feathered songsters are very fit companions. The naturalist will tell you that birds are more than garden ornaments. He will tell you that many varieties of huge, worms and grubs are destroyed by them, of pollen carried on delicate hills for flower fertilization and of devastating moles and young gophers caught by the vigorous, sharp eyed owls.

That California has but few singing-birds compared to those of New England and European countries is generally conceded. That more bird songsters, sweeter singers, than even the meadow-lark in the early morning are generally desired by all who are out of doors as much as all horticulturists must be, is something that may be assumed. Oregon has recently received large importations of sweet singers and a movement to bring similar song birds into California has lately been inaugurated. That the State Floral Society may be informed of what is being done in this matter and may consider the wisdom of endorsing a plan that will tend to make all out-of-door California more attractive and possibly individual flower gardens more pleasing, is the object of this paper.

In the month of May, 1889, the Oregon Society imported from Clansethal, in Germany, under a contract with a German bird-dealer, the following birds in pairs of males and females, viz.: Ten pairs black-headed nightingales, 8 pairs of gray song thrushes, 15 pairs of black song thrushes, 22 pairs skylarks, 4 pairs of singing quail, 20 pairs black starlings, 19 hullfinches, 40 pairs of goldfinches, 40 pairs of chaffinches, 35 pairs of linnets, 40 pairs of ziskins (green finches), 20 pairs grosbeaks, 1 pair real nightingales (the rest had died on the way), and several pairs of red-breasted English robins, wrens, forest finches, yellow-hammers, green finches. The secretary, O. F. Pfleger, reports that all these birds, with their cages, were placed on exhibition for four days to the public. Thousands of people went to see them, and the society realized about \$500 by this show, which went toward paying for the expense of bringing them out. At the close of the exhibition all the birds were turned loose in the suburbs of Portland and a large number in other counties. The larks were let loose outside of the city near clover meadows. The birds have done well ever since they were let loose. Some nested in Portland and some in the suburbs, while others went far off into the State.

The society has received reports from numerous places that the birds have prospered, and that the scheme has been a grand success. At H. Dosh's place, back of Portland, black thrushes, song thrushes, goldfinches and black-headed nightingales have made their home and reared their young ones. Mr. Dosh has a large orchard and an abundance of water on his



place, which makes it sought by the birds. Linnets have remained in and around the city, and their sweet songs have been heard all over the city and in East Portland. A pair of black-headed nightingales nested near Silverton, 40 miles south of Portland, last summer, and a pair were seen near Forest Grove, 50 miles from Portland. Mr. Maher of North Portland reports a nightingale singling near his place after dark during all summer. At Mr. Munk's place, back of the city, a pair of song thrushes made their nest and raised five young ones this summer. Frank Dekum found a pair of song thrushes nesting back of the Exposition building last season. Several bullfinches were seen by H. D. McDonald, a short time since, back of the city. Mr. Stohr, the Portland bird-dealer, saw a flock of green finches in South Portland not long ago.

The Oregon Society has now sent for more sweet singers, to reach there about March 1st. This coming consignment consists of vocalists of South American and European reputations. Among them are skylarks, mocking-birds, bullfinches, black and gray thrushes, red-breasted English robins, goldfinches, black-headed nightingales, chaffinches, linnets and black startings. It is birds of this class that will likely be brought to California. The present plan is to bring here, as soon as sufficient funds can be raised either by a society or private subscription, about 600 pairs of songsters. Different counties desiring birds may send at the same time. At Santa Cruz, according to the *Surf*, A. P. Stanton, well known in this city, has taken the subscription paper in charge, headed with his own subscription of \$50. The paper is as follows. It may contain suggestions for similar county movements elsewhere. A plan for the importation of useful, insectivorous song birds:

Forty pair sky-larks, \$4.....	\$160 00
Forty pair mocking-birds, \$5.50.....	220 00
Forty pair nightingales, \$5.50.....	220 00
Forty pair bullfinches, \$4.....	100 00
Forty pair gold and green finches, \$2.50.....	100 00

Total.....	\$860 00
Expenses for afterward, delivery, etc.....	40 00

Total.....\$900 00

We, the undersigned, hereby agree to contribute the amount subscribed opposite our names to form a fund to be used in importing useful insectivorous song birds into Santa Cruz county, the birds to be let loose soon after their arrival in such place or places as shall be determined to be the most suitable.

An Oregon dispatch, only a few days since, notes that large flocks of goldfinches, bullfinches, European robins and other birds, descendants of those imported by the Society for the Importation of Song Birds, have returned from their winter migration and are making the orchards in the vicinity of Portland vocal with their songs. Linnets and some other birds have remained here all winter, and are perfectly at home in the gardens about the town. All these birds are insectivorous, and will be useful in destroying orchard pests as well as furnishing melody. The Legislature has passed an Act providing for the protection of both imported and native song birds and their nests and eggs. A correspondent writes recently that the Santa Cruz movement indicates a strong action in the direction of removing the stigma from California that we have only birds that chirp and none that sing. The success has been so marked in Oregon that we ought to have the same good fortune for California, and while San Francisco county is hardly suitable for the birds, yet the interior ones should be well adapted. A similar subscription to the one alluded to, as under way in Santa Cruz, has already been started in Santa Clara county, and Napa and Marin counties are understood to be moving in the matter also.

## AGRICULTURAL NOTES

### CALIFORNIA.

#### Fresno.

**A PACKING HOUSE**—EDITORS PRESS: The El Modelo packing-house, the largest in Washington Colony and one of the largest in the country, was destroyed by fire on the night of the 10th inst. The owner, A. D. Barling, has achieved a splendid reputation for several brands of raisins, the three principal ones being "El Modelo," "Old Mission" and "Colony." The insurance on building, stock and machinery foots up something over \$23,000, while Mr. Barling estimates his loss to be nearly \$15,000 in excess of that amount. There were several carloads of goods on hand, two carloads of which were to have been shipped the day following. The El Modelo is to be rebuilt.—C. M.

**VINE AND TREE-PLANTING**.—Fresno, Feb. 12: Vine and tree-planting around Fresno, Fowler and Sanger is going on rapidly, and the acreage will be very large. Muscat rootings are abundant at \$7 to \$10 per thousand; Sultanas are very scarce and cuttings are worth \$1 per thousand. Other varieties, possibly excepting Malagas, do not figure to any extent in the market.—C. M.

**THE FIRST CROP**.—Kingsburg Cor. Selma Enterprise, Feb. 13: Kingsburg shows signs of waking up. About 400 small farmers will this year harvest their first crop of fruit.

#### Humboldt.

**THE SILO**.—Eureka Standard, Feb. 11: Capt. Geer of Blue Lake says that he is doing what

many Eastern farmers have been doing for years past. The Eastern farmer began by building an air-tight pit under ground, into which green feed of any kind—green corn, oats, wheat, clover, or other grass—is packed under pressure and allowed to commence heating until about 135° F. is reached, when the top of the pit is hermetically sealed or covered air-tight under pressure, and the green feed allowed to cure in its own heat. This is on the same principle of canning vegetables, to preserve them from decomposition, in their own juices. But Capt. Geer says the underground silo is not the thing for California—probably not the thing for any section of the country—and that the only requisite is a strong, air-tight building with sills imbedded in the ground and no floor. The silo he is building is 21x32 feet on the ground and 20 feet high. It is built of refuse lumber on a stout framework, covered with tarred paper so painted as to be air-tight and then covered with another layer of lumber. The feed is out green (be will fill this silo with peas) and packed into the building from above until it is full, then covered with loose boards (of course there is a water-tight roof over the silo) and allowed to ferment until a heat of about 135 to 140 degrees is reached, when it is covered air-tight, under pressure, and allowed to remain sealed like a fruit can for about six weeks. The silo can then be opened and the feed is ready for use. It is estimated, and correctly, that 50 cubic feet of feed cured in the silo will weigh a ton, and that a ton will last an average cow 40 days. Capt. Geer's silo will contain 260 tons. The farmer who builds a silo can thus have green feed for his cattle the year round, where they have cold weather, and in the valleys will allow him to take his cattle off the pasture and turn most of it into meadow or hay land, as he may desire, or to rest his pasture when he chooses. There is now but one silo in use in this county, and that was built and put to successful use by S. F. Pine on his dairy ranch near this city. The result of Mr. Pine's venture is most satisfactory, and the cows kept on the food thus preserved thrive, yield as much and as good milk—and sometimes better milk—than is given from pasture feeding.

#### Kern.

**TREE AND VINE PLANTING**.—Bakersfield Californian, Feb. 14: A company is now engaged in planting 320 acres, in the vicinity of Madera, in vines and fruit trees. The company does not believe in the one-product idea, and only 100 acres will be planted in raisin grapes. The balance will be planted in all those varieties of fruit to which the soil and climate is believed to be adapted.

#### Los Angeles.

**TAHITI ORANGES**.—L. A. Express, Feb. 10: "We shall regard it as a great exploit if we succeed in growing Tahiti oranges with their native strength here in Southern California," says Harry Messerve, who has just returned from the Society Islands. "The Tahiti oranges are all seedlings, but they are far superior to any seedlings which we now produce in the United States. They are in point of fact the best all-around orange that can be grown. The trees are very large. They bear three crops a year on the islands, and the heaviest crop is over 4000 oranges to the tree. This crop is ready for gathering in the middle of June, by September another crop is ripe, and in February the third crop is ready for picking. These two latter crops are light—they will run about 800 to the tree. Even they are an ordinary annual crop for a seedling here. We believe the Tahiti oranges will bear more than once a year here, and will bear as heavy crops. In other words, we believe this luxuriansness of growth and bearing is incident to the variety and not entirely to the climate in which they grow. The oranges are a fine, firm, juicy fruit, with little pulp, and runs of a uniform size—about 126's and 128's. A peculiarity of the Tahiti orange is that it does not ripen, or rather the skin does not turn yellow, on the tree. This is very odd—that they must be taken from the tree before they will turn. This makes them somewhat better for shipping, because they turn on their way and are fully ripe by the time they reach their destination. We believe, however, they will ripen on the trees in this climate. In fact we know that to be the case, for there is a seedling orchard in Riverside from Tahiti seedlings which is just coming into bearing and is being watched with much interest. These oranges have the gold color on ripening."

#### Mendocino.

**INCREASING HIS HOPYARD**.—Oscar Foss called the past week and states that he is increasing his hopyard near Hopland to 32 acres, by setting out 12 acres to hops this year.

**TREE-PLANTING**.—Oscar Foss, of San Francisco, is setting out an orchard. He has planted 450 trees this year, mostly prunes, and will add to the number each year until he has the most of his 590 acres in fruit.

**FRUIT VS. SHEEP**.—Utah Republic Press, Feb. 12: It has recently been demonstrated in these columns that land planted in Bartlett pears or prunes will yield in a few years from \$250 to \$500 per acre. In wool the same land would do well if it paid a dollar an acre, and yet there are thousands of acres of good fruit land in this county that is used for sheep only.

#### Napa.

**THE NEXT AGRICULTURAL FAIR**.—Calistoga Independent, Feb. 11: The next agricultural fair in Napa will begin Aug. 17th and continue to and include the 24th. All persons attending

the races "fair week" will be required to wear a badge conspicuously displayed. This is for the purpose of guarding against imposition, many having heretofore surreptitiously gained admission to the grounds without paying the usual price of admission.

#### Orange.

**OUR FRUIT INDUSTRY**.—Santa Ana Blade, Feb. 12: The shippers, packers and buyers about the depot grounds of this city are exceedingly busy packing and shipping the orange crop of the valley. J. H. Moesser, Manager of the Santa Ana Fruit Packing Co., is rushed with business at the packing establishment near the Southern Pacific depot. The company does no purchasing nor shipping, but simply packs such fruit as is brought to their store-rooms. At present Mr. Moesser is packing three carloads of oranges for Paul Seger, who will ship them East the latter part of this week. Smart & Collins, buyers, packers and shippers, are doing a rushing business at their drying and packing establishment. They are engaged in packing, for shipment to Chicago, several carloads of oranges, which will be branded with their own stencil, showing from whom and where they are shipped. G. Getty, of Tustin, representative of the Earl Fruit Co., is packing and loading three cars on the switch of the Santa Fe, in those beautiful patent refrigerator cars which that company owns.

#### Sacramento.

**A CENSUS OF FRUIT TREES**.—Sacramento, Feb. 15: The State Board of Equalization instructs the assessors that when they commence the annual assessment this year they shall in conjunction take a census of the number of fruit trees and their kinds, number of acres planted and the acreage in table and wine grapes. The State Board desires these figures, not for the purpose of taxation, but to benefit the county and its citizens. In order to facilitate the work and have the returns as nearly correct as possible, it would be well for all the fruit-growers to have these statistics down on a slip of paper before the arrival of the assessor.

#### San Bernardino.

**PLANTING DANCY TANGERINE ORANGES**.—Riverside Press and Horticulturist, Feb. 14: E. R. Skelley exhibited in our office to-day a bunch of six Dancy Tangerine oranges, just received from S. B. Hill of Maitland, Florida. The fruit is of a deep rich orange color and the flavor delicious. The leaves are of a glossy dark green. Specimens of the yellow and red Tangerine were also sent, and of Hart's Tardiff, the latter of a pale yellow color and as firm as an apple. Mr. Skelley is setting out ten acres in Dancy Tangerines, as he considers it one of the best varieties grown.

#### San Diego.

**FARM PROGRESS**.—Cor. San Diego, Feb. 14: Where a few years ago was a dreary mountain side is now a pleasant drive through scores of orchards and vineyards at Lakeside, Spring Valley and Mesa Grande. The settlements throughout the county will doubtless show an average addition of 50 per cent to the amount heretofore tilled, and a degree of care and prudence never before equaled. Winchester's output of 50,000 sacks of grain came from far less ground than now spreads for miles along its fertile valley. Herds of the finest Holsteins, Durhams, Jerseys and other fine breeds of cattle on the extensive alfalfa-fields of San Jacinto are duplicated by other herds of Devonshires, Alderneys and Polled Angus on the Santa Margarita, Montecito and other ranches nearer the city. Brick business blocks are under construction in San Jacinto, Escondido, Temecula, Oceanside, Winchester, and hundreds of acres of newly-cultivated lands are to be seen at nearly every settlement visited. During a residence of nearly sixteen years in Southern California, and six in San Diego, I have never witnessed the vast amount of solid development, progress and business that characterizes the opening of '91. Prices are good for everything, and no effort is being spared to produce just as much and just as fine as is possible. Now, prices and improvements are so changing the country that the oldest inhabitant feels his way by new roads and by-laws, and looks on a promise of great and lasting wealth.

**FRUIT COMMISSIONERS DIVIDE UP THE COUNTY AND BEGIN WORK**.—S. D. Union, Feb. 12: The new County Board of Horticultural Commissioners, which is just getting to work, is composed of J. P. Jones of this city, ex-fruit inspector, S. P. Abell of Encinitas and Dr. W. R. Perry of Perris. Each member has a deputy, J. F. Brooks being Mr. Jones' assistant. When they organized a few days ago, Mr. Jones was chosen president and Mr. Abell secretary. They divided the county to suit each. The first district, under Mr. Jones, extends from the frontier to Encinitas, and across the county to include Mesa Grande, Julian, Banner and Stonewall, and all the territory lying farther east. District 2, under Mr. Abell, extends from Encinitas to Vallecito, county wide. District 3 extends from Vallecito to the northern boundary. They also adopted a resolution to ascertain the area under cultivation throughout the county. President Jones has just sent galvanized iron tanks to Dr. Perry to be used in disinfecting trees at Perris and San Jacinto.

**AMOUNT OF WATER TO THE ACRE ON IRRIGATED LAND**.—San Diego, Feb. 12: Alessandro has a good water right. It has an inch to four acres, as have also Riverside and Redlands. Arlington Heights, under the Gage canal, has

an inch to five acres. Highlands, under the North Fork ditch, has an inch to six acres. South Riverside and Jurupa have an inch to 7½ acres. Etiwanda has an inch to eight acres. Ontario, Rialto and Pomona have an inch to ten acres.

#### San Joaquin.

**THE BOTHWELL CANAL WILL BE CONSTRUCTED**.—Lodi Sentinel, Feb. 14: Mr. George W. Bothwell assures the Sentinel that the ditch will be constructed and water brought upon the lands of those who have contracted with him for water. Arrangements have been made to put a corps of surveyors in the field and the work will be pushed zealously to completion. It might be stated that the projectors will see to it that their ditch will carry just enough water—no more and no less—than to irrigate those lands for which water rights have been secured, and those who are backward in coming forward now and subscribing for water will be exceedingly backward in getting forward in the advance guard of the progressive and successful farmers and fruitmen of this locality. The Bothwells have made every accession that has been asked of them and have given the land-owners every opportunity to look into the matter, and those who are left out in the cold and dry when the water comes will have no one to blame but themselves. A bright future for Lodi is now assured.

#### Solano.

**CROPS AND RAIN**.—Davisville Cor. Dixon Tribune, Feb. 10: Grain on the adobe soil is said to be looking fine, and from this source at least we may expect more than an average crop. Fruitmen are still hopeful, and having availed themselves of the dry weather to put the land in good condition, await the coming storm with perfect faith. Mr. Treat declares that he has not the least doubt, since he can recall seasons similar to this in which the late rains more than compensated for the drouth of midwinter. I must helieve with Mr. Treat, because we can hardly stand a second failure, though it should proceed from an exactly opposite course to that of the past season.

**TREE-PLANTING IN A GRAIN DISTRICT**.—Vacaville Reporter, Feb. 12: The fruit belt of Solano county will include in a few years many of the districts now devoted to grain. An enterprise of this kind is on foot near Dixon, in an out-and-out grain country. The work of planting is being done by J. B. Jobson on a 40-acre tract belonging to him which lies two miles west of Dixon. This experiment of transforming grain-fields into orchards will be watched with interest.

**ORCHARD RETURNS**.—Suisun Republican, Feb. 13: The following figures, given us by Mr. Sheldon, manager of J. H. White's orchard in Suisun valley, are worthy of publication. From 5 4-7 acres, upon which are 604 French prune trees seven years old, he sold \$1494.70 worth of dried prunes and the cost of drying and handling was \$102. He made, clear of all expenses, a little over \$500 on 2½ acres of Bartlett pears, seven years old. Mr. White's orchard contains 44 acres, which cost him \$20,000 about two and a half years ago.

**SALE OF A STALLION**.—Suisun, Feb. 13: Mr. Hammond has purchased of Mr. Wiley, of Petaluma, a coal-black stallion, of French stock, pure blood and testified record. It is a superior horse, about 17 bands high, and turns the scales at 1650. The price paid was nearly \$1300.

#### Sonoma.

**THE AGRICULTURAL PROSPECT**.—Santa Rosa Democrat, Feb. 14: S. T. Coulter says that the agricultural prospects have not been better for 20 years. "There is no suffering for lack of a rain so far, and I think there will be none in this part of the State. I have been traveling over the county considerably of late, and find that the crops are in excellent condition, and in the western part of the county there is no suffering for lack of feed. The weather has been just right to keep the fruit buds back, too, and the farmers have made unusual progress with their work. There is a class of people who would grumble at anything, and now they are complaining for fear we won't have too much rain."

#### Tulare.

**WHAT IS REQUIRED OF FOREIGN BORN CITIZENS TO FILE ON GOVERNMENT LAND**.—Porterville Farm View, Feb. 13: Foreign-born citizens applying to file on government lands are now required to file with their papers either their naturalization papers, their declaration of intention, or certified copies. In proving up, a foreign-born citizen must show his own papers, or if his father was naturalized before he was 18 years of age, his father's papers, and must show that he has ever since resided within the jurisdiction of the United States. Many whose fathers were naturalized when they were quite young and have voted right along for years, when they come before this land office, find they must procure naturalization papers.

**NAME YOUR RANCHES**.—Hanford Sentinel, Feb. 12: Every good thing should have a name. Nearly everything is designated by a title excepting the farms of the country, and we are glad to note the tendency in the direction of naming the farms. Owners of these farms will change, but the name given to them will remain forever. Among the places about Hanford that have been named, we know of several. There is B. A. Bateman's Newlyn ranch; George Dodge's Sandy Loam Farm; C. T. Hecker's Walnut Grove; O. H. Wyane, Darban; W. G. Nicholson, Willows Ranch, and so on. A small sign-board with the name on it put up at the entrance to the farm would



oost but little and would not only look well but be a great help and guide to the travelling public, especially if the distance to the nearest town was marked upon it. Many of the principal vineyards of the country have already put up signboards.

Yolo.

VINEYARD WORK.—Winters Express, Feb. 14: The vineyards at Danville have had from 2 to 20 hands in them for some time. The Briggs, Gould and Eade vineyards are all pruned and the trimmings burned. The Larne vineyard is about finished also. The Gould orchard is plowed. Several teams have been manuring the Briggs vineyard for a month, hauling it out in wagon and sled loads. This is wise, as the soil must be fed for grapes and fruit as well as for grain. Horticulturists must learn this and profit by it. The young vineyards are doing finely.

Yuba.

THE PHILLIPS CLING PEACH.—Marysville Democrat, Feb. 13: Joseph Phillips, one of the best-informed fruitmen in the State, is the originator of the now famous Phillips Cling peach. The peach, which is a chance seedling, was discovered by Mr. Phillips while working the Abbott & Phillips orchard in Sutter county and he has improved it and now it is considered by cannermen to be a very valuable acquisition. The peach was first given the name Phillips' Cling in the book "California Fruits and How to Grow Them," where, on page 308, the following brief description is given: "Fine, large, yellow cling, no color at pit, which is very small. Exceedingly rich and high colored. Described by Mr. Skinner, Superintendent of the Marysville Cannery, as the best peach he ever used."

ARIZONA.

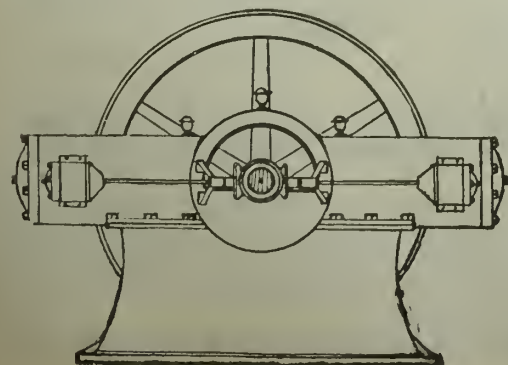
EXPERIMENTAL STATIONS.—Phoenix Herald, Feb. 12: A work is going on in Southern Arizona at the present time which is of much interest and importance, and very little knowledge concerning its scope of usefulness has been disseminated. Bulletin No. 1, issued from Tucson, gives an idea of what a great undertaking has been inaugurated. Four stations have been established and others will be started as soon as practicable. The one at Tucson will be watched with more interest by the people of that section. It is located on the University grounds and the soil is described as a gravelly loam overlying a soft lime rock of from two to six feet. Permanent water is found at 80 feet, and on a small piece of adjoining land with no hard pan, water at 30 feet. The Phoenix station, out on Grand avenue, has been cleared, leveled and plowed. It is about ready for the actual work of experimentation. In speaking of the future work of this department the report says: A large number of varieties of fruits, including nearly all that have been found of value in California, will be planted at the four stations during the winter, as well as other plants of economic interest, including the sugar beet, sugar cane, cotton, grasses, forage plants, etc. etc., and the results obtained recorded and published from time to time. As soon as the chemical laboratory is equipped, which will be about the last of January, we shall begin an examination of the waters of the several streams and of the wells in the Territory used for irrigation, and a chemical analysis of soils and other materials. Analysis of soils and of water of the Territory will be made free of cost when such examination is of public interest. Correspondence is solicited from persons interested in having such work done.

NEVADA

CLOVER VALLEY BEEF.—Reno Gazette, Feb. 12: The Clover Valley, Nevada Ranch & Stock Company has just shipped 400 three and four-year-old steers to the California market, for which it gets three cents, live weight, at the ranch. These steers weighed between 1350 and 1400 pounds each and were fattened on alfalfa hay, and no better beef ever went to market than these animals. They were taken off the range Nov. 15th and put in pens of 200 each, with just room enough for them to feed and move around and grow fat. The Clover Valley Co. raises alfalfa and wild hay. Last season 2000 tons of alfalfa and 2000 tons of wild hay were put up at a cost of \$1.40 per ton for cutting and stacking, and the cost of irrigation was estimated at less than 25 cents per ton.

THE LAUNDRY QUEEN

SAVES TIME, LABOR, STRENGTH AND THE CLOTHES WASHED. Will last a lifetime and is always in order. Send for circular. B. F. LEEDS, Agent, Santa Clara, Cal.



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AN EXPERIENCED, SOBER AND INDUSTRIOUS Man to take charge of a large young orchard of citrus and deciduous trees. Must understand budding, pruning and general care of fruit trees. If married, and no children, wife can have position as housekeeper. None need apply who cannot fill above requirements and give good references. Address F. F. ADAMS, Fallbrook, San Diego Co., Cal., or E. M. Frank, 215 California St., San Francisco.

BREAKING DOWN

The prejudice against our plan, that is the cash plan, of doing business is fast giving way and many of the leading merchants of the country are adopting it. In fact, the stores through this State are now buying liberally of us, to their profit and our satisfaction. We offer many bargains at this time.

Ladies' Linen Collars, 12 to 144.....	50c	Carpet Warp, all colors.....	23, 25c
Ladies' Linen Cuffs, 7 and 7 1/2.....	50c	Wool Yarn, off colors, lb.....	65, 75c
Gents' Linen Collars, four-ply.....	10c	Men's Underwear, winter use.....	35, 40c
Dress Buttons, assorted, 12 doz.....	25c	Ladies' Underwear, winter use.....	40c up
Boys' Every-day Shirts.....	30, 35c	Ladies' Underwear, sleeveless.....	10c up
Boys' Sunday Shirts.....	35 to 75c	Ladies' Stockings, all styles.....	8c up
Men's Every-day Shirts, Cotton.....	35 to 75c	Ladies' Gray Wool Hose, extra.....	25c
Men's Every-day WOOL Shirts.....	75c up	Child's Winter Hose.....	25 to 35c
Boys' Every-day Pants, long.....	75c	Boys' Winter Hats.....	45c up
Boys' Every-day Pants, knee.....	50c	Boys' Caps.....	25c up
Boys' Sunday Pants, knee.....	\$1 up	Boys' Straw Hats.....	20c up
Boys' Sunday Pants, long.....	\$1 up	Men's Working Leather Gloves.....	40, 50c
Men's Every-day Pants.....	75c to \$1.50	Men's 1/2 Gauntlets.....	50, 75c

We have the largest, cheapest, best assorted stock of General Merchandise on the Coast. We make our customers' interest the first thought. Will you send for our full list and give us a trial? Address

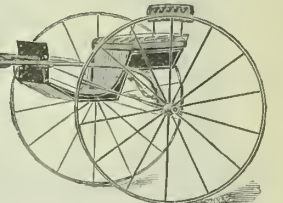
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THE BLUE RIBBON CART, WITH PHAETON BODY.

\$35

Has a seat wide enough for two, with box underneath for parcels. The body has been lengthened, is securely framed and strengthened by making the panels in one piece. Seven wheels, steel axles, and curved dash. Finished in scarlet lake or brewster green. The "Blue Ribbon" has proved to be the best built, most popular and best selling low-priced Phaeton Cart ever brought to this market. With Patent Spiral Spring Lazy Back. Shipped securely crated. Weight, 175 pounds.



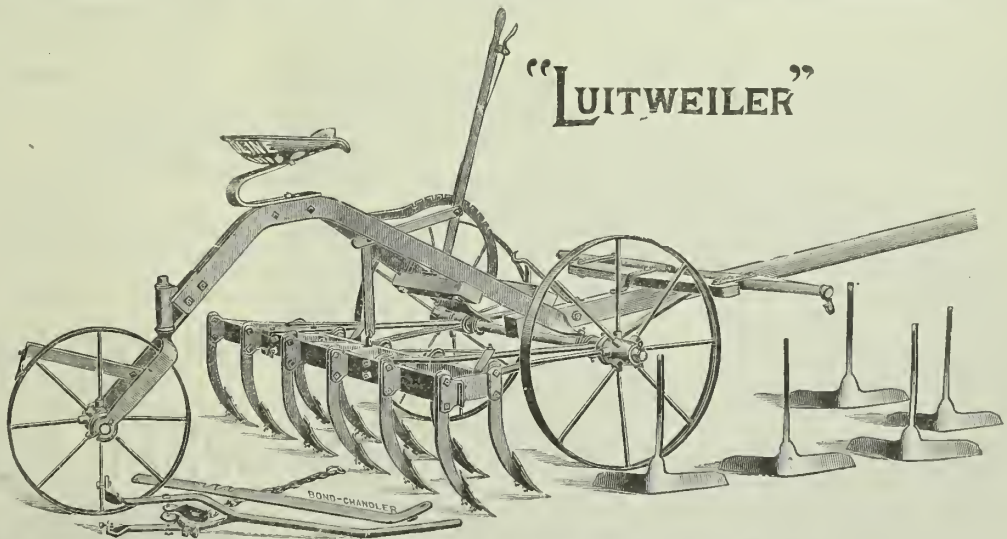
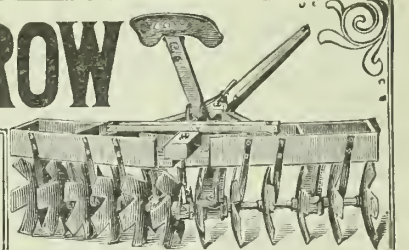
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SUPERSEDES THE PLOW Makes a PERFECT SEED BED.

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THE LUITWIELER IMPROVED Steel Beam Cultivator.

PRONOUNCED BY ORCHARDISTS AND VINEYARDISTS SUPERIOR TO ANY CULTIVATOR IN THE MARKET. Draft of six-foot cut as light as a 12-inch plow. Leaves the ground even. No plow required. Made in three sizes, 6, 8 and 10-foot. Write for circular and price list.

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Our Perfected "Safety" Engines Cost to Run only 1-8 Gallon of Gasoline per Horsepower per Hour. No Boiler, Fire, Smoke, Steam, Ashes or Heat. No Engineer, No License, No Danger. Single and Double Acting. 1/2-H.P. to 20-H.P.

GENTLEMEN—The 2-H. P. Engine received and set up yesterday. We attached it to part of the machinery in my shop, and it ran my Drill Press, a small Lathe, a large 24 inch by 14-foot Lathe, and a set of Emery Wheels, all of which it handled easily, to our great surprise. Yours very respectfully, J. B. HENDERSON.

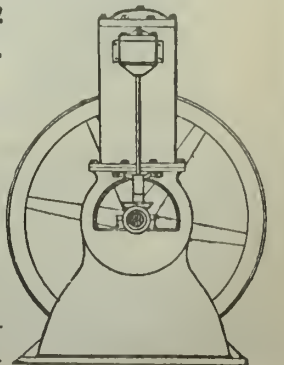
GENTLEMEN—I am satisfied, after running for over a month my Bean Cleaner, etc., with the 4-H. P. Engine you sent me, that it is much the best Gas Engine I have seen. The electrodes are certainly superior to all others; also your safety rotary slide-valve, which is the personification of simplicity, positiveness and durability; I am satisfied it will develop much more power than we have need for. I also want a 3 or 1-H. P. for my wife and daughters to use about the house; we have a rotary clothes washer, can also do the churning, etc. I do not know of any better recommendation than to order a second engine. Respectfully yours, P. C. HIGGINS.

NOTE.—Both of these Engines were shipped to the parties named, and were set up by them solely by the diagram and printed directions we sent them.

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Complete Plants of all kinds, Stationary or Mounted on Wheels. U. S. AND FOREIGN PATENTS.



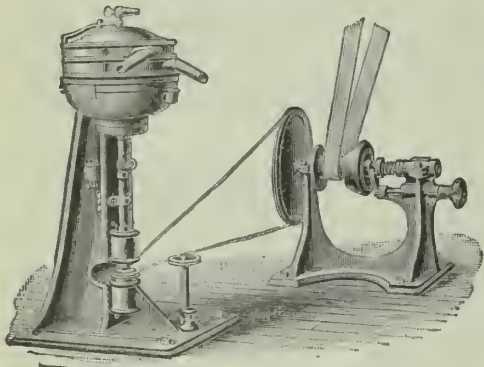


## THE DAIRY.

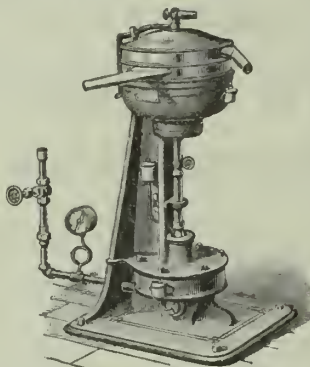
## The De Laval Cream Separator.

The use of the De Laval cream separator has become so general in every dairy district of the world that the principle of centrifugal separation of cream from milk needs little description. Moreover, the process is simply one of nature, the centrifugal force generated by the revolving speed of the machine causing a complete separation or division of the cream from the other parts of the milk by reason of the difference in the specific gravity or weight, the cream after separation being discharged from the machine through one outlet, and the remainder, or skim milk, through another.

So perfect and complete is the separation effected by thus employing specific gravity, that, as years of experience have fully demonstrated, and beyond any contradiction, an actual increase of fully 10 per cent in the yield of butter is insured over the most modern



De Laval Belt Separator of 1890

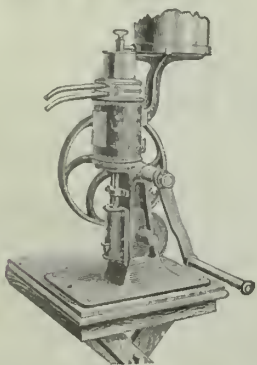


De Laval Turbine Separator of 1890

methods of setting milk in ice, and from 15 per cent to 20 per cent and more increased yield over ordinary setting in pans, according to the surroundings, the gain being greater, of course, in warm and stormy weather. At the same time a decided improvement in the quality is noticed, as following the introduction of the centrifugal system into dairies that are regular shippers to market. Recently, we examined a list of opinions from 100 of the leading dairy commission merchants of New York City, each giving their individual opinion of separator butter as compared with butter made by other methods, and the universal opinion seemed to favor the product of the machine in all the essentials of quality, flavor, texture, and keeping and selling features.

Other advantages resulting from the use of the separator in addition to increased yield and improved quality may be briefly mentioned as securing a uniformity of the product even under varying extremes of the climate, for while this depends largely on the churning process, the bulk before churning is so materially decreased by separating the cream from the milk immediately after milking that the care of the few cans of cream while same is ripening preparatory to churning is a comparatively simple and easy task. Sweet cream gathering leaves sweet skim milk, and by this process the latter may all be fed out to young stock within an hour after it leaves the cow, and while its value as a feed is still retained. Thus separating while milking, both proceed simultaneously, and shortly after the last cow is milked the cream is all secured, the skim milk fed out, machinery and cans cleaned up and the dairy work is finished and well done.

Following the development of the large power De Laval, great pains have been taken to perfect a hand-power separator that should be entirely practical for use in small dairies, and in this connection Dr. De Laval has at last achieved complete success, and now the Baby De Laval separator also illustrated herewith is offered to all milk-producers whose requirements do not warrant a larger investment.



The Baby De Laval Separator.

The small machine upon examination proves to be as perfect in construction as its large partner, and operates so easily and being so simple and compact, it cannot fail to come into general use, having already attained a marvelous sale in Europe.

We have yet to learn of the first case where a De Laval separator has been introduced on this coast and its use afterward discontinued. There is no longer any question but that the separator is a great step in advancement,

## EXCITEMENT IN ROCHESTER.

## The Commotion Caused by the Statement of a Physician.

An unusual article from the Rochester, N. Y., *Democrat and Chronicle*, was recently republished in this paper and was a subject of much comment. That the article caused even more commotion in Rochester, the following from the same paper shows:

Dr. J. B. Henion, who is well known not only in Rochester but in nearly every part of America, sent an extended article to this paper a few days since, which was duly published, detailing his remarkable experience and rescue from what seemed to be certain death. It would be impossible to enumerate the personal inquiries which have been made at our office as to the validity of the article, but they have been so numerous that further investigation of the subject was deemed necessary.

With this end in view, a representative of this paper called on Dr. Henion at his residence, when the following interview occurred: "That article of yours, Doctor, has created quite a whirlwind. Are the statements about the terrible condition you were

in, and the way you were rescued, such as you can sustain?"

"Every one of them and many additional ones. I was brought so low by neglecting the first and most simple symptoms. I did not think I was sick. It is true I had frequent headaches; felt tired most of the time; could eat nothing one day and was ravenous the next; felt dull pains and my stomach was out of order, but I did not think it meant anything serious."

"The medical profession has been treating symptoms instead of diseases for years, and it is high time it ceased. The symptoms I have just mentioned, or any unusual action or irritation of the water channels, indicate the approach of kidney disease more than a cough announces the coming of consumption. We do not treat the cough, but try to help the lungs. We should not waste our time trying to relieve the headache, pains about the body or other symptoms, but go directly to the kidneys, the source of most of these ailments."

"This, then, is what you meant when you said that more than one-half the deaths which occur arise from Bright's disease, is it, Doctor?"

"Precisely. Thousands of diseases are torturing people to-day, which in reality are Bright's disease in some of its many forms. It is a Hydra-headed monster, and the slightest symptoms should strike terror to every one who has them. I can look back and recall hundreds of deaths which physicians declared at the time were caused by paralysis, apoplexy, heart disease, pneumonia, malarial fever and other common complaints which I see now were caused by Bright's disease."

"And did all these cases have simple symptoms at first?"

"Every one of them, and might have been cured as I was by the timely use of the same remedy. I am getting my eyes thoroughly opened in this matter and think I am helping others to see the facts and their possible danger also."

Mr. Warner, who was visited at his establishment on N. St. Paul street, spoke very earnestly:

"It is true that Bright's disease had increased wonderfully, and we find, by reliable statistics, that from '70 to '80 its growth was over 250 per cent. Look at the prominent men it has carried off, and is taking off every year, for while many are dying apparently of paralysis and apoplexy, they are really victims of kidney disorder, which causes heart disease, paralysis, apoplexy, etc. Nearly every week the papers record the death of some prominent man from this scourge. Recently, however, the increase has been checked and I attribute this to the general use of my remedy."

"Do you think many people are afflicted with it to-day who do not realize it, Mr. Warner?"

"A prominent professor in a New Orleans medical college was lecturing before his class on the subject of Bright's disease. He had various fluids under microscopic analysis and was showing the students what the indications of this terrible malady were. 'And now, gentlemen,' he said, 'as we have seen the unhealthy indications, I will show you how it appears in a state of perfect health,' and he submitted his own fluid to the usual test. As he watched the results his countenance suddenly changed—his color and command both left him and in a trembling voice he said: 'Gentlemen, I have made a painful discovery, I have Bright's disease of the kidneys,' and in less than a year he was dead. The slightest indications of any kidney difficulty should be enough to strike terror to any one."

"You know of Dr. Henion's case?"

"Yes, I have both read and heard of it."

"It is very wonderful, is it not?"

"No more so than a great many others that have come to my notice as having been cured by the same means."

"You believe, then, that Bright's disease can be cured?"

"I know it can. I know it from my own and the experience of thousands of prominent persons who were given up to die by both their physicians and friends."

"You speak of your own experience; what was it?"

"A fearful one. I had felt languid and unfitted for business for years. But I did not know what ailed me. When, however, I found it was kidney difficulty I thought there was little hope and so did the doctors. I have since learned that one of the physicians of this city pointed me out to a gentleman on the street one day, saying: 'There goes a man who will be dead within a year.' I believe his words would have proved true if I had not fortunately used the remedy now known as Warner's Safe Cure."

"Did you make a chemical analysis of the case of Mr. H. H. Warner some three years ago, Doctor?" was asked Dr. S. A. Lattimore, one of the analysts of the State Board of Health.

"Yes, sir."

"What did this analysis show you?"

"A serious disease of the kidneys."

"Did you think Mr. Warner could recover?"

"No, sir, I did not think it possible."

"Do you know anything about the remedy which cured him?"

"I have chemically analyzed it and find it pure and harmless."

The standing of Dr. Henion, Mr. Warner and Dr. Lattimore in the community is beyond question, and the statements they make cannot for a moment be doubted. Dr. Henion's experience shows that Bright's disease of the kidneys is one of the most deceptive and dangerous of all diseases, that it is exceedingly common, but that it can be cured if taken in time.

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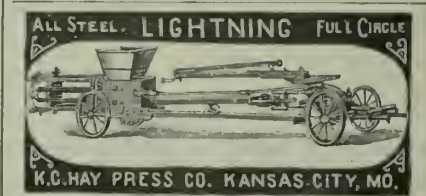
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THE SCIENCE OF METEOROLOGY is by no means an exact science as yet, but there is a steady gain toward exactness. Many problems which seemed insoluble a few years ago have been satisfactorily answered, and many more are being studied with favorable prospects of being determined before very long. As observation stations are multiplied and more data for calculations furnished, the chances of securing better results will be increased, and the predictions will be of more and more value. We are taught, says a cotemporary, that the wind bloweth where it listeth, and whence it comes or whither it goes no man knoweth; but the weather bureau has undertaken to find out not only whence the wind comes but why it comes and when it may be looked for. To accomplish this must require the patient labor and incessant observation and study of years, and we should rather be grateful for what has been accomplished than displeased because perfection has not been attained. If any one will keep tally on the weather predictions for two or three months, he will be surprised to find that the bureau is right a great many more times than wrong, and that there is certainly something of value in the system which it has adopted and is trying to make more nearly perfect.

**CONTROLLING SEX IN BUTTERFLIES.**—A suggestive article as to the possibility of controlling sexes in butterflies has been communicated to the *American Naturalist* by Mrs. Mary Treat, and from the results of numerous experiments she finds occasion to believe that the larvae to which the freshest and most tempting food was supplied in unlimited quantity nearly always developed into female butterflies, while those for which the supply of food was limited, almost as uniformly proved to be males. Dr. Packard is, however, inclined to think that the sex of this insect, as well as that of all animals from eggs, is determined at or about the time of conception, or, at least, early in the embryonic condition. In the honey-bee, especially, it has been proved that the sex is decided at the time the egg leaves the oviduct. The sex in man, according to Koelliker, becomes fixed toward the end of the second month of fetal life.

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## GOOD HEALTH.

### Changing Climate for Health.

EDITORS PRESS:—This is doubtless often done with beneficial results and yet not always. When the deprivations, discomforts, annoyances of leaving home and all that that implies are very great, the benefits are more than overbalanced, the sufferer had best remain at home and study and practice diligently all the laws of physiology; practice a little self-denial to result in after-increased health and enjoyment.

Much of the benefit ascribed to change of climate is due to change of occupation, scenery, associates, friends. Still there are doubtless many cases where a change of climate, even from a good to a comparatively poor one, is absolutely necessary to a restoration to health. Let the physician prescribe, yet such is my lack of faith in all drugs and physicians—the keenness of my horror at the disastrous results they often induce—that I must be very sick indeed before I will consent to call in their aid.

Sixteen years ago I came from Kansas to Santa Barbara with throat complaint that had troubled me since 1862. In a few weeks my throat was apparently well and so continued for years. Gradually, however, it grew worse until nearly as bad as before I came to California. Two weeks ago I came to Ventura county, 400 or 500 feet above the surface of the ocean and 20 miles back. My throat is better than for many months, although for a day or two, during stormy, rainy weather, it troubled me somewhat. Santa Barbara has a moist climate and is doubtless the best climate in the world for some diseases. Here the climate is dry. My buggy, which had withstood the Santa Barbara climate six or eight years with unloosened tires, had not been here a week until every tire was loose. The air seems clearer, cooler, purer, more bracing and exhilarating. In strict justice, I must also add more windy, much more windy. S. P. SNOW.

Fillmore, Ventura Co.

POISON IN HAT-BANDS.—Enamelled hat-bands should not be worn during the hot summer months. "A good many sore faces," said a well-known physician to a New York Sun reporter, "are caused every summer by poisonous sweat-hands in hats. Some men always insist on buying Derby hats with enamelled sweat-hands, and if they wear them during the summer months a mild sort of blood poisoning is apt to result. As a man's head always perspires very freely under the sweat-band of his hat, the poison in the enamelling composition is softened and released, but its unpleasant effects are seldom noticeable there. The very fact that the perspiration is constantly coming out of those particular pores prevents the poison from going in. But as each little bead of perspiration rolls down his face, it is charged with the poison, and if it happens to run over a little pimple, or a place where he has scratched his face, or cut it with a razor, the result will probably be unpleasant. A dozen tiny pimples will appear, and no matter how many 'blood-purifiers' he doses himself with, his face will be dotted with little sores until he buys a hat with a good sweat-band. Straw hats are seldom made up with the enamelled sweat-hands, and that fact is another reason why every man should wear them in the summer. Of course this warning does not apply to all hats with enamelled sweat-hands. Some of them are perfectly harmless, but as it is impossible to tell which are good and which are bad without a chemical analysis, and as a chemical analysis would spoil the hat, enamelled sweat-hands are good things to avoid in hot weather."

DISBELIEVERS IN VACCINATION for smallpox should consider the statements just made to the French Academy of Medicine by Dr. Brouardel. While Germany loses only 110 persons per annum from smallpox, France actually loses 14,000, to be accounted for by the rigid way in which vaccination is enforced in Germany and by the carelessness of the Frenchmen. In 1865, when vaccination was not obligatory in Prussia, the mortality was 27 per 100,000 inhabitants. After vaccination was enforced, the mortality fell in 1874 to 3.60 per 100,000 and in 1886 to 0.049. At the present time, the mortality from this cause in France is 43 per 100,000.

To the question, Which is your favorite poem? there may be a great variety of answers; but when asked, Which is your favorite blood-purifier? there can be only one reply—Ayer's Sarsaparilla, because it is the purest, safest, and most economical.

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than any other pill I ever took." — Mrs. B. C. Grubb, Burwellville, Va.

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Heald's Patent Wine-making Machinery, including Grape Crushers and Stemmers, Elevators, Wine Presses and Pumps, and all appliances used in Wine Cellars. Irrigating and Drainage Pumps. Heald's Patent Engine Governor, Etc.

### PRUNING A PLEASURE

BY USING THESE SHEARS

No Springs to get out of order, or pinch the hand. Light, but



## SORGHUM

A LITTLE book that every farmer ought to have is the "Sorghum Hand Book" which may be had free, by addressing The Blymyer Iron Works Co., of Cincinnati, O. Sorghum is a very valuable crop for syrup-making, feed, and fodder, and this pamphlet gives full information about the different species, best modes of cultivation, etc. Send and get it and read it.

### RANCH IN LAKE COUNTY.

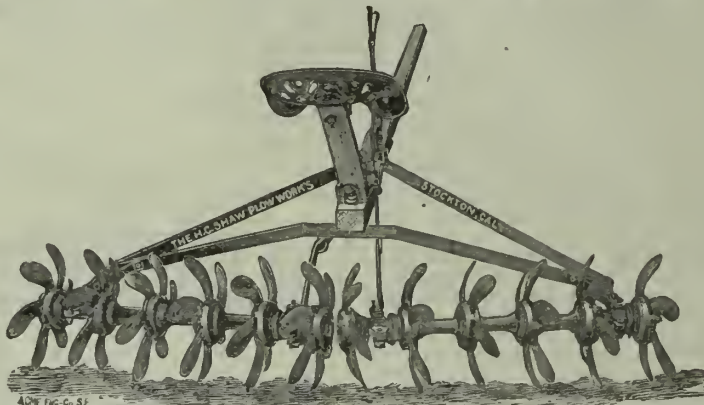
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THREE HUNDRED AND TWENTY ACRES, ABOUT 60 acres improved; two dwellings, orchard, good fences, well timbered and watered. On public road, good location. Will sell on easy terms or exchange for City or Oakland property. Price \$7000. O. C. LOGAN & CO., 451 Ninth St., Oakland, Cal.

1 Snake Ring, 1 Band Ring, and several samples of our latest and finest work, all for a 2-cent stamp. Boston Card Co., Boston, Mass.

# THE "TRIUMPH."

THE BEST PULVERIZER IN THE WORLD.



## ALL METAL SPADING HARROW.

HORTICULTURISTS AND FARMERS, TRY IT!

SPECIALLY ADAPTED FOR ORCHARDS AND VINEYARDS.

### TESTIMONIALS.

HAYWARDS, CAL., Jan. 15, 1891.  
H. C. SHAW PLOW WORKS, Stockton, Cal.—DEAR SIR: Your Triumph Spading Harrow is all that is claimed for it. It is the most perfect pulverizer I ever used in my orchard and is not wearying or exhausting on the team. Yours truly,  
WILLIAM C. BLACKWOOD.

SAN FRANCISCO, CAL., Jan. 16, 1891.  
H. C. SHAW PLOW WORKS, Stockton, Cal.—DEAR SIR: The gentleman using the Triumph Spading Harrow we bought from you for him writes us as follows:

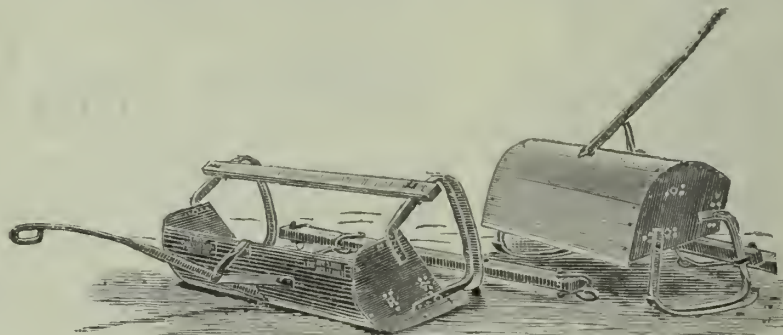
"That the Triumph Spading Harrow is in fact a triumph over all the harrows I have ever used. The first trial I made was on a 30-acre field sowed with barley; 15 acres were harrowed with the Triumph in one day as perfect as it is possible to be. The other 15 acres I harrowed with a common harrow and it took me three days, and then it was not in as good condition as that harrowed with the Triumph. The Triumph does splendid work and as a harrow I consider it worth three times as much as the ordinary harrow, as well in the field as in the orchard and vineyard. It is a perfect pulverizer and weeder.—C. STROEBEL, Eagle Home Farm, Searsville, Cal." Yours Truly,

PIXLEY, CAL., Jan. 12, 1891.  
H. C. SHAW PLOW WORKS, Stockton, Cal.—DEAR SIR: Regarding the Triumph Spading Harrow would state that we are satisfied it is as light draft as any, and lighter than the average cultivator of its kind, and, as to its work, we think it cannot be beat. Yours truly,  
PIXLEY COMMERCIAL CO.,  
By L. E. SMITH, Secretary.

CHAMBERS OF THE JUDGE OF THE SUPERIOR COURT, JOHN C. GRAY, JUDGE.

OROVILLE, BUTTE CO., CAL., Jan. 17, 1891.  
H. C. SHAW, Esq., Stockton, Cal.—DEAR SIR: I purchased from your Agent, Mr. Hill, one six-foot Triumph Spading Harrow, and sent the same out to my olive farm to try. My foreman declares that it will do the work of four plow teams, and requests me to get another to put into the field by the first of March. He is highly delighted with it and calls it the greatest improvement in farm machinery he has yet seen. Instead of putting a number of teams into the field to plow and then harrow the ground, I shall go over it with the Spading Harrow twice and the work will be more thoroughly done, and at one-third of the expense. This is one of the most complete pieces of farming machinery that I have yet seen, and I cheerfully recommend it to those, who, like me, want the most and best work done for the money. It gives entire satisfaction. Yours truly,  
JOHN C. GRAY.

### H. C. SHAW PLOW WORKS, Stockton, Cal.



## FRESNO CANAL, DITCHING AND LEVELING SCRAPERS.

FIREBAUGH, CAL. (Poso Farm), November 8, 1889.  
MR. JAS. PORTROUS, Fresno, Cal.—DEAR SIR: In answer to yours of 6th inst., will say that I have found your new style four-horse Scraper the best all-round Scraper I have yet tried. Respectfully yours,  
J. W. SCHMITZ, Supt. Miller & Lux.

SEND FOR CATALOGUE AND PRICE LIST.

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LIGHT WEIGHT! EASY DRAFT!  
AMPLE STRENGTH!

STEEL FRAME OUTSIDE OF WHEEL

Prevents Injury During Close Cultivation.

LEVER ADJUSTS DEPTH WHILE PLOWING.



Steel Frame, Steel Molds, Steel or Chilled Shares and Lands, Tonguebars, Self-guiding, Simple, Strong. A simple adjustment permits plow nearest vines or trees to make shallow furrow, say two inches, thus avoiding danger to the roots, the others plowing required depth. Weight of Three-Gang 7-inch only 200 pounds, and simply strong for hard soils. Price complete, \$38.00. The only implement with advantages of both Plow and Cultivator, thus satisfying the advocates of either. Send for Catalogue and Testimonials.

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Metal Engraving, Electrotyping and Stereotyping  
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HORTICULTURE.

Some Profits in Fruit Culture in Fresno and Tulare Counties.

Mr. D. T. Fowler, Snpt. of Del Rio Rey Raisin and Fig Co., whose lands are near Clifton, Fresno Co., writes, Jan. 9, 1891, as follows:

A. T. DEWEY, ESQ., S. F.—Dear Sir: Below you will find the figures of fruit profits made from the orchards of Page & Morton. Mr. Sweet of Los Angeles Co. obtained them from the books of Page & Morton, so Mr. Sweet informed me, after visiting the Page & Morton grounds.

Figures taken from the books of Page & Morton, whose large irrigated orchard and vineyard is located four miles west of Tulare City, by Mr. Sweet, Sept., 1890:

Kinds of fruit.	Cost per acre 1st yr.	Cost per acre 2d yr.	Age of trees.	Cost of care and hand-ling crop, 1890.	Gross receipts, 1890.	Net receipts, 1890.
Apricots.....	\$30	\$20	5	\$132	\$343	\$211
Nectarines.....	30	20	5	132	400	268
Peaches.....	30	20	5	150	500	350
Yel'w Egg Pl's...	30	20	5	100	500	400
French Prunes...	30	20	6	120	720	600
Pears.....	30	20	6	75	502	427
Raisins 1889.....	30	15	5	65	305	240

Area of orchard, 500 acres.  
Area of vineyard, 800 acres.  
They are surprising figures, yet they have been equaled and surpassed, as far as the peach crop is concerned.  
One of my neighbors here sold over \$600 worth of dried peaches from two acres of trees. These trees will be four years old next February.  
From 18 acres, Mr. Gartenlanhe sold this year over \$9000 worth of dried peaches. His place is one mile from the Del Rio Rey.

Rates for Exhibition Purposes.

The Southern Pacific has issued a circular touching upon the rates upon exhibits for the coming State Citrus Fair at Los Angeles from the 3d to the 10th of March.  
It says that all citrus, deciduous or dried fruits, in glass, nuts and raisins, and the showcases in which they are to be exhibited, will be shipped to Los Angeles from all points on the line within the State at regular rates, but they will be returned to the point of shipment free of charge if the exhibitor will surrender to the company's agent at Los Angeles the expense bill showing the charges to that point, along with a certificate from the secretary of the association to the effect that the property had been exhibited and had not changed hands.  
When perishable goods are found to be worthless at the close of the fair, the exhibitor can present his expense bill and the secretary's certificate and receive from the agent one-half of the amount paid for the shipment of the goods. The provisions amount in the end to a rate of one-half the regular tariff on the articles for exhibition. The road wants to be sure that what it carried is exhibited.

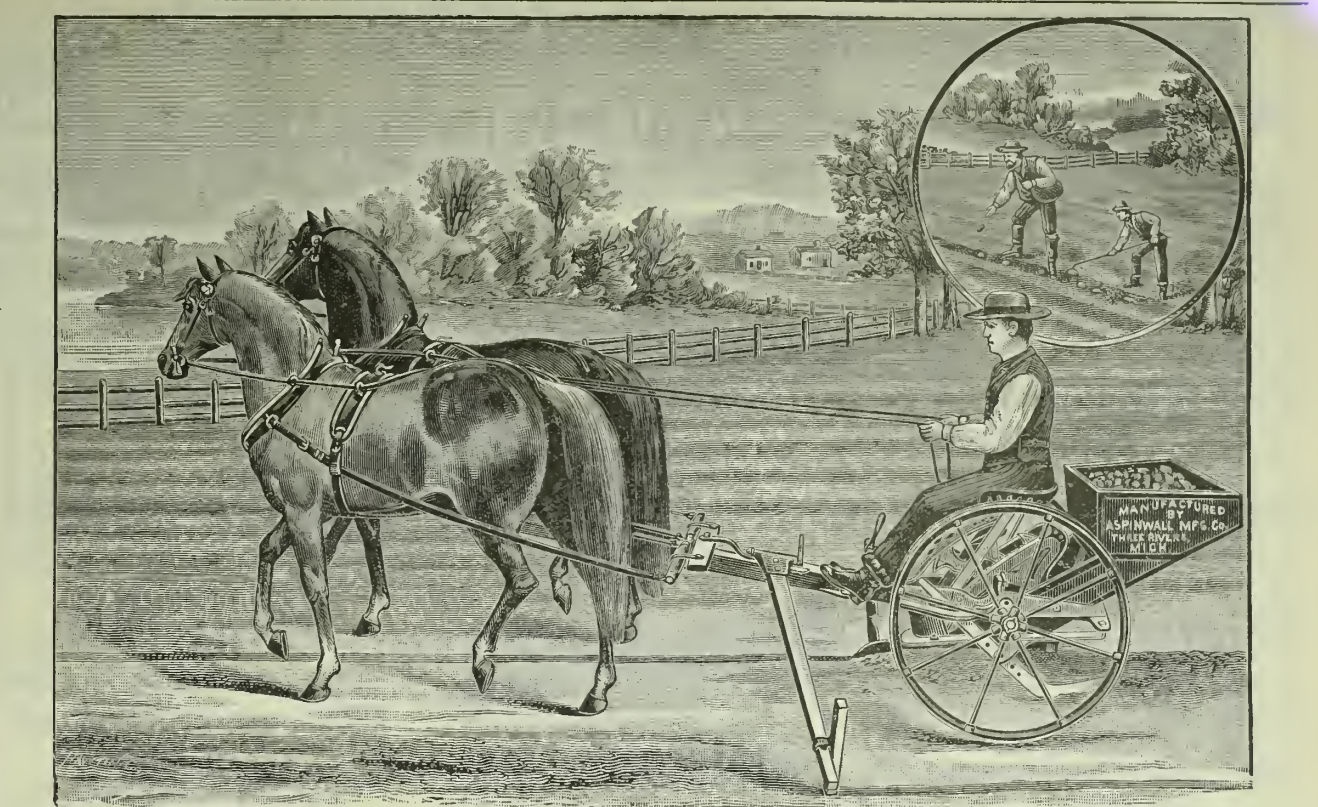
List of U. S. Patents for Pacific Coast Inventors.

Reported by Dewey & Co., Pioneer Patent Solicitors for Pacific Coast.

- FOR WEEK ENDING FEB. 10, 1891.
- 446,316.—DIVIDER ATTACHMENT FOR MOWERS Mark Anthony, S. F.
  - 446,221.—CABLE RAILWAY—L. M. Clement, Oakland, Cal.
  - 446,249.—CHAIR—Julia W. Craig, S. F.
  - 446,227.—STREET-CAR FENDER AND BRAKE—Geo. T. Hall, Moravia, Cal.
  - 446,350.—LENSES FOR ILLUMINATING TILES—P. H. Jackson, S. F.
  - 446,352.—BORING MACHINE—A. M. Jewell, S. F.
  - 446,353.—BORING MACHINE—A. M. Jewell, S. F.
  - 446,234.—THRASHING MACHINE—E. McDonald, Willows, Cal.
  - 446,305.—BRAKE FOR CABLE CARS—J. F. Waite, S. F.
  - 446,240.—CAR COUPLING—G. W. Weller, Baker City, Or.
  - 446,275.—AIR-SIGNALING APPARATUS—G. B. Williams, Portland, Or.

NOTE.—Copies of U. S. and Foreign patents furnished by Dewey & Co., in the shortest time possible (by mail or telegraphic order). American and Foreign patents obtained, and general patent business for Pacific Coast inventors transacted with perfect security, at reasonable rates, and in the shortest possible time.

BERKSHIRE SALES.—Phil M. Springer, Sec retary American Berkshire Association, Springfield, Ill., sends the following transfers of recorded Berkshires: Calistoga 15665, by John Rider, Sacramento, Cal., to John McFarling, Oakland, Cal.; Hero 25519 by John McFarling, Oakland, Cal., to Ohas. A. Stowe, Stockton, Cal.; Redwood Mary 25530, Sultan 25531, Napa Belle 25532 and Napa Model 25617 by Andrew Smith, Redwood City, Cal., to A. McFarland, Napa, Cal.; Redwood Chieftain 25621, Model Beauty 25622 and Model Belle 25623 by Andrew Smith, Redwood City, Cal., to Thos. B. Hall, Sacramento, Cal.



The Aspinwall Potato Planter.

The excellent picture on this page represents quite a new claimant for public favor, and one that seems to win its way very thoroughly wherever it is tried. The machine will plant from five to eight acres per day, and all the work of marking, furrowing, dropping and covering is done in a single operation. The planting can be varied in depth from three to nine inches, and the covering is uniform. Instead of the dry earth on top, the covers of the planter draw upon the seed the moist under earth, and the value of this is well known to all potato-growers, for few things are more fatal to the start-

ing of the seed than to cover it with dry earth. The work is superior to hand-planting. The furrow being V-shaped, the seed must necessarily be dropped in the bottom in perfect line, and cultivation can be made early and close.  
The planter is adjustable for planting either whole or cut seed, and will plant from 10 to 26 inches apart. At all these variable distances it drops the potato with absolute regularity. The distance of planting is exactly the same in each row.  
A fertilizer attachment can be used, which deposits the fertilizer above the potato, just as a portion of the earth has fallen upon it; thus all chance for injury to seed is avoided.  
The mechanical construction of the planter is

good. The materials are of the best and it will last for many years. There is no cog gear or no fast motion. Excepting the pole and hopper, the whole machine is made of steel and iron.  
A corn-planter attachment is now made which will be wanted by many who purchase the potato-planter.  
Altogether in its present high perfection, the Aspinwall Potato Planter is an implement few potato-growers will care to do without.  
Mention this paper and you can secure the catalogue of the makers by addressing the Aspinwall Manufacturing Co., Three Rivers, Michigan. Truman, Hooker & Co. of this city are the Pacific Coast agents.

QUERIES AND REPLIES.

Squirrels and Gophers.

EDITORS PRESS:—At a regular meeting of West Park Alliance, I was instructed to ask you to advise us through the columns of your paper, the best way of destroying gophers, squirrels and Johnson grass. W. P. BOWEN, Sec'y.  
Measures for the destruction of squirrels and gophers are continually appearing in our columns as the experience of our individual readers leads them to commend certain methods. We had a full chapter on gopher destruction in the RURAL of Dec. 17, 1887, describing many means and materials, and another of the same character on squirrels in the RURAL of March 2, 1889. Readers who keep files can refer to these dates easily.  
The destruction of Johnson grass is, we believe, best accomplished by plowing the roots up to the sun in midsummer. This would succeed in dry land, but not so well, probably, in moist soil. We should like to know what our readers do with Johnson grass, and how they succeed with eradication measures.

San Ramon Valley.

EDITORS PRESS:—Having become a regular, and certainly a very much pleased, reader of your paper, may I venture to try and help along a little by giving you some of the features and good qualities of the great valley lying at the foot of Mt. Diablo known as San Ramon? No prettier one exists in Northern California.  
Entering it from the north, you have on your left huge, vast, rock-ribbed and canyon-seamed old Diablo looking like some old sentinel over a great stretch of country and ocean. Far away to the north lies the fertile Sacramento valley, while "far, vague and dim" Shasta butte stands with all between filled with beautiful, varied assortment of grain, orchard and meadow, with the waters of Sacramento river to add the charm of subtle attraction, that moving nature ever gives to quiet scenery. All this beauty can be gathered in from many points along the sides of our valley, and, as time rolls on, wealth, seeking country homes, will dot our hillsides with residences, where not only will rest and quiet be found, but profit as well.  
Last night a fine rain set in and to-day the smiling faces of our farmers attest the satisfaction they feel that the long continued drought is over; in addition to a large acreage of grain sown, many of our fruit-growers are adding to their orchards, as the past few years have demonstrated that our lands are rich in the material to bring the choicest fruits to the highest perfection; and the day will come when the hillsides of this valley will be covered with vineyards, producing wines that will rival if not outdo our friends in Southern Empire. Alamo. O. W. D.

Horse Sales at the South.

Holbert & Conger, importers of Cleveland Bay, English Shire and German coach horses of Los Angeles, report an active demand for these larger horses, especially English Shire, and notwithstanding the dry season quite satisfactory sales have been made in San Diego, Ventura, Kern and Los Angeles counties. A remarkably large Shire stallion named "Midge" goes to Compton, where these parties sold two fine Cleveland and two Shires from their first and second importations, and now this stallion goes from their third importation, for \$3000, into the same neighborhood, where the scrubs are obliged to move out. Good stallions will make their own way.

DEATH OF DR. WILKINS.—The dread disease la grippe is again prevalent, and in many cases is attended with serious and even fatal results. One victim was Dr. E. T. Wilkins, resident physician at the State Asylum for the Insane at Napa, who died on Tuesday. He was 66 years of age, and had been in charge of the asylum for 19 years. He was a prominent Mason and Knight Templar and was highly esteemed throughout the State.

Don't Fail to Write.

Should this paper be received by any subscriber who does not want it, or beyond the time he intends to pay for it, let him not fail to write us direct to stop it. A postal card (costing one cent only) will suffice. We will not knowingly send the paper to any one who does not wish it, but if it is continued, through the failure of the subscriber to notify us to discontinue it, or some irresponsible party requested to stop it, we shall positively demand payment for the time it is sent. LOOK CAREFULLY AT THE LABEL ON YOUR PAPER.

JAMES M. HAVEN. THOMAS E. HAVEN, Notary Public.  
**HAVEN & HAVEN,**  
ATTORNEYS AND COUNSELORS AT LAW,  
No. 530 California Street,  
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CALIFORNIA FRUITS

— AND —  
**HOW TO GROW THEM.**  
A MANUAL OF METHODS WHICH HAVE YIELDED GREATEST SUCCESS; WITH LISTS OF VARIETIES BEST ADAPTED TO THE DIFFERENT DISTRICTS OF THE STATE.  
BY EDWARD J. WICKSON, A. M.

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  - PART II: CULTURAL.—Clearing Land for Fruit; The Nursery; Budding and Grafting; Preparation for Planting; Planting the Trees; Pruning Orchard Trees; Cultivation; Fertilizers for Fruit Trees and Vines; Irrigation of Fruit Trees and Vines.
  - PART III: ORCHARD FRUITS.—The Apple; The Apricot; The Cherry; The Peach; The Nectarine; The Pear; Plums and Prunes; The Quince.
  - PART IV: THE GRAPE.—Rise and Progress of the Grape Interest; Propagating and Planting Vines; Pruning and Care of the Vine; Grape Varieties in California.
  - PART V: SEMI-TROPICAL FRUITS.—The Date; The Fig; The Olive; The Orange; The Lemon, Lime, etc.; Minor Semi-Tropical Fruits.
  - PART VI: SMALL FRUITS.—Berries and Currants.
  - PART VII: NUTS.—Nut-Growing in California.
  - PART VIII: FRUIT PRESERVATION.—Fruit Canning, Crystallizing and Drying.
  - PART IX: FRUIT PROTECTION.—Injurious Insects; Suppression of Injurious Animals and Birds; Protection from Winds and Frosts.
  - PART X: MISCELLANEOUS.—Melon Growing; Fruit Packages.

LARGE OCTAVO—575 PAGES.  
PRICE \$3. POSTPAID.

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## Breeders' Directory.

Six lines or less in this Directory at 50c per line per month.

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Among them is the well-known Stallion, MAMBRINO WILKES, son of GEO. WILKES, the sire of five in the 2:30 list, and three others which all horsemen know could have been put there last season, as well as many others that can trot in 2:30. The great race horse BALKAN, can trot in 2:20 with as good a chance of lowering that mark as any horse of his age ever presented. The great brood mare FANNY FERN, with 12 of her immediate progeny—the phenomenal colt FREEDOM, yearling record 2:29, descends from Fanny Fern through Mollis Drew. A string of highly bred producing dams, among whose progeny are GUS WILKES, BALKAN, MYLITA, CLARA P., CHALDEAN, ALPHEUS, FRED ARNOLD, MOLLY DREW, and numerous others. For description of which and extended pedigree send to undersigned for catalogue. Sale to take place

**ON SATURDAY, MARCH 7, 1891, AT 1 P. M., AT OAKLAND TROTTER PARK.**

Mr. Ayres having decided to retire permanently from the breeding of trotting horses, will dispose of every animal upon the farm, with the exception of two work horses, without limit or reserve.

Catalogues will be ready February 9.

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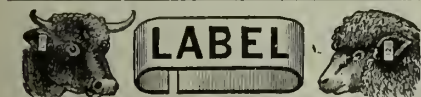
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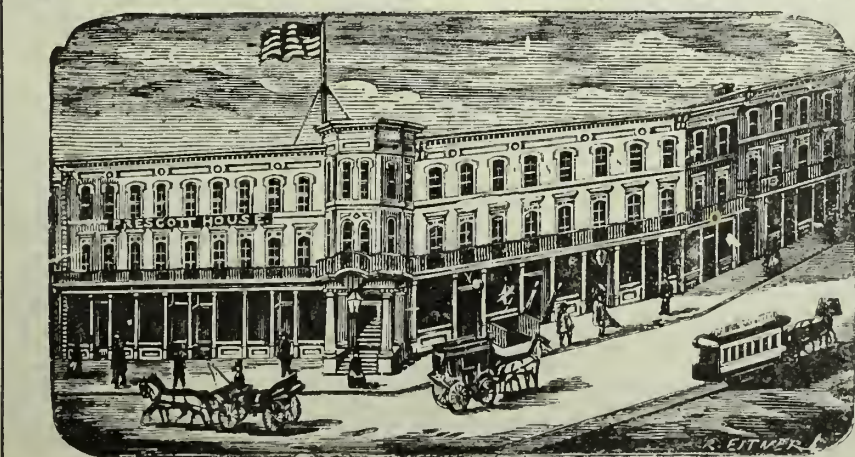
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## S. F. MARKET REPORT

## Market Review.

## DOMESTIC PRODUCE, ETC.

SAN FRANCISCO, Feb. 18, 1891.

Rains the past week, with clear skies and warmer weather to-day, inspire confidence, which is calculated to promote more active trading, if not to create a spirit of speculation in the more speculative farm products. After next week, money is expected to rule easier. To a certain extent, cereals feel the weather influence. Owing to light supplies, the effect is not very decided. Wheat abroad has strengthened some. The following is to-day's cablegram:

LIVERPOOL, Feb. 18.—Wheat—Firm. California spot lots, 75 10d; off coast, 38s 9d@39s; just shipped, 38s; nearly due, 38s 6d, cargoes off coast and on passage, steady; Mark Lane wheat, firm but not active; wheat and flour in Paris, steady; weather in England, frosty.

## Foreign Grain Review.

LONDON, Feb. 16.—The *Mark Lane Express* in its review of the British grain trade says: English wheats are firm; average value, 33s; the finest whites sell at 38s. California are strong and to-day were up 6d. Prices of flour are in favor of holders. Corn is well held; the finest old American sells at 27s 3d; new crop, 26s. Oats are firm and barley is irregular.

## Liverpool Wheat Market.

The following are the closing prices paid for wheat options per cwt. for the past week:

	Feb.	Mar.	April.	May.	June.	July.
Thursday.....	78 1/2	78 1/2	78 1/2	78 1/2	78 1/2	78 1/2
Friday.....	78 1/2	78 1/2	78 1/2	78 1/2	78 1/2	78 1/2
Saturday.....	78 1/2	78 1/2	78 1/2	78 1/2	78 1/2	78 1/2
Monday.....	78 1/2	78 1/2	78 1/2	78 1/2	78 1/2	78 1/2
Tuesday.....	78 1/2	78 1/2	78 1/2	78 1/2	78 1/2	78 1/2

The following are the prices for California cargoes off coast, nearly due and prompt shipments for the past week:

	O. C.	P. S.	N. D.	Market.
Thursday.....	38s 3d	37s 9d	38s 0d	Firm.
Friday.....	38s 3d	37s 9d	38s 0d	Firm.
Saturday.....	38s 3d	37s 9d	38s 0d	Strong.
Monday.....	38s 3d	37s 9d	38s 0d	Firm.
Tuesday.....	38s 3d	37s 9d	38s 0d	H'd higher

## Eastern Grain Markets.

The following shows the closing prices of wheat at New York for the past week, per bushel:

Day.	Feb.	Mar.	April.	May.	June.	July.
Thursday.....	110 1/2	110 1/2	110 1/2	110 1/2	110 1/2	110 1/2
Friday.....	111 1/2	111 1/2	111 1/2	111 1/2	111 1/2	111 1/2
Saturday.....	111 1/2	111 1/2	111 1/2	111 1/2	111 1/2	111 1/2
Monday.....	111 1/2	111 1/2	111 1/2	111 1/2	111 1/2	111 1/2
Tuesday.....	111 1/2	111 1/2	111 1/2	111 1/2	111 1/2	111 1/2

The closing prices for wheat have been as follows at Chicago for the past week, per bushel:

Day.	May.	June.	July.	Aug.
Thursday.....	97 1/2	97 1/2	97 1/2	97 1/2
Friday.....	98 1/2	98 1/2	98 1/2	98 1/2
Saturday.....	97 1/2	97 1/2	97 1/2	97 1/2
Monday.....	97 1/2	97 1/2	97 1/2	97 1/2
Tuesday.....	98 1/2	98 1/2	98 1/2	98 1/2

CHICAGO, Feb. 18.—Wheat—98c for May and 93 3/4c for July.

## Eastern Wool Markets.

NEW YORK, Feb. 13.—Bradstreet's will say: The sales of wool during the week were not large. This has been due in part to the scarcity of good wools, and also to the fact that most mills have secured a full supply. The demand at present is confined almost exclusively to yarn mills, which are consuming a much larger quantity of wool than usual. Reports from the London sales have assisted in strengthening values. Sales of Australian wools have been the principal feature of the trade during the week. In domestic stocks of pulled wools has been the most activity. Ohio and Michigan fleeces and Territory are quieter. Texas and California wools are in fair demand and values are holding very firm. Carpet wools are again moving slowly under a very weak demand.

NEW YORK, Feb. 15.—Trading is in domestic; foreign, active; buyers willing to operate at full prices, but resist all suggestions of an advance in present conditions of good market. The situation of manufacturers of woollens is quite as healthy as last noted, delaines showing most steadiness. Fair package buying in other stuffs. Eastern markets exhibit much confidence in raw, all goods picked up. Manufacturers who are carrying three to four hundred thousand pounds of stock are still eager customers for all straight and useful blending parcels. 150,000 pounds California spring private terms; 15,000 pounds fine medium Territory, 21@21 1/2c; 10,000 pounds fall New Mexico, 20@22c; 30,000 pounds XX and above, 34@34 1/2c. Boston reports extremely strong prices and large sales considering the drained condition of stocks. Sales of 770,000 pounds of foreign, including half a million of Australian, 36@42c; priced grade; 2,344,000 pounds domestic, including 75,000 pounds of southern and middle county California spring, 17@20c.

## Raisins.

NEW YORK, Feb. 15.—The wholesale grocers are getting ready for the interior spring demands. From the tenor of their inquiries they want California produce adjusted to attractively easy prices to meet the coming country orders. Cheap reputation raisins bring out some force of the buyers. No large business has yet developed. Few brands are accorded a full quality of merit. In the general pressure to sell, holders would rather accept faulty estimates than let the customer go. Soft in bags sold at 4 1/2@5c; sound, but not showy, 5 1/2@5 1/2c. Prime can be had at all kinds of shadings of the last prices down to 6 1/2c. Boxes weak, last outside rates not named in any style.

## Miscellaneous.

NEW YORK, Feb. 15.—Mustard Seed—Quoted with some steadiness at 3 1/2c for yellow and 4 1/4c for choice brown.

Hops—Good to best, firm; held at former figures. The recent loss by fire did not hurt the market. Good useful Pacific go to brewers in a small way at 30@32c. Top price about equals best. London quoted same.

## Local Markets.

Buyer Season.		Seller 1891.		Buyer 1891.	
H.	L.	H.	L.	H.	L.
Thursday....	148	147 1/2	111 1/2	111 1/2	148 1/2
Friday.....	148	146 1/2	111 1/2	110 1/2	148 1/2
Saturday....	146 1/2	146 1/2	111 1/2	111	148 1/2
Monday.....	145	144 1/2	108 1/2	107 1/2	148 1/2
Tuesday....	142 1/2	141	107	106 1/2	148 1/2

\*After August

BAGS—The market is steady, with a firmer tone at 6 1/2 to 6 3/4 cents for May-June delivery. Some operators look for better prices soon.

BARLEY—The rains gave the bears a splendid opportunity to hammer the market, which they were not slow in taking advantage of. Large dealers and feeders of course aid the bears by withdrawing temporarily from the market. Well-informed parties are still bullish. On Call, trading by cross-orders or otherwise has been more active. The following are today's reported Call Board sales:

Morning Session: Seller 1891—100 tons, \$1.06; 300, \$1.05 1/4; 100, \$1.05 1/2. Buyer season—100 tons, \$1.40 1/2; 100, \$1.40 1/4; 300, \$1.40 1/2. May—100 tons, \$1.35 1/2; 100, \$1.35; 100, \$1.35 1/4; 100, \$1.35 1/2; 100, \$1.35 1/4; 100, \$1.35; 100, \$1.34 1/2; 100, \$1.35 1/2.

BUTTER—The market has receded, closing to-day weak and feverish. Stocks have been and are still steadily increasing, while the outlet is being restricted. The rains cause dealers to anticipate free arrivals. Receipts by rail from the central States are larger. Oleomargarine is on the market, with more to come.

CHEESE—The market is strong at full prices, under moderate receipts and a good demand.

EGGS—Immediately following our last week's review, the market set off from 2 to 3 cents a dozen under a stronger selling pressure. To-day the market is slow with buyers bidding down. It looks as if a lower range will follow. A consignment parcel of 100 boxes good to choice eggs were offered to-day at 18 cents without bringing a buyer.

FLOUR—The market is very strong, with an advance not at all unlikely.

WHEAT—The sample market shows continued strength. Reducing flour to wheat, the exports for the season to date aggregate over 500,000 tons. Considerable wheat, owing to its relative cheapness, has been fed to stock. In futures, trading is only fair. The following are the reported sales made on to-day's Call Board:

Morning Session: Buyer 1891—100 tons, \$1.45 1/2; 300, \$1.45 1/4; 100, \$1.45 1/2. Buyer Season—400 tons, \$1.41 1/2; 300, \$1.41 1/4; 1600, \$1.41 1/2.

## Market Information.

## Produce Receipts.

Receipts of produce at this port for the week ending Feb. 17th, were as follows:

Flour, qr. sks.....	107,557	Middlings, sks....	1,272
Wheat, cts.....	230,533	Alfalfa, ".....	85
Barley, ".....	28,216	Chicory, bbls....	85
Rye, ".....	1635	Broomcorn bbls..	85
Oats, ".....	7,456	Hops, bbls.....	2
Corn, ".....	1,080	Wool, ".....	2
*Butter, ".....	589	Hay, tons.....	1,093
do bxs.....	259	Straw, ".....	44
do bbs.....	172,450	Wine, gals.....	5,203
do kegs.....	304	Brandy, ".....	5,203
do tubs.....	304	Raisins, bxs.....	5,203
do 1/2 bxs.....	273	Honey, cs.....	5,203
†Cheese, cts.....	273	Walnuts, sks....	5,203
do bxs.....	26	Flaxseed, ".....	5,203
Eggs, doz.....	48,780	Mustard, ".....	5,203
do " Eastern, 12,750	Almonds, ".....	5,203	
Beans, cts.....	14,638	Peanuts, ".....	5,203
Potatoes, sks.....	16,100	Popcorn, ".....	5,203
Onions, ".....	1,144	Beet sugar, bbls..	5,203
Bran, ".....	6,147	do do sks.....	5,203
Buckwheat.....			

\*Overland 250 cts. †Overland 659 cts.

## Cereals.

In its annual review of 1890 the *Times of India* summarizes the crop position as follows: Prospects of the coming crops are generally good. Taken all round, the monsoon was very favorable. We never remember to have seen such a heavy rice crop around Bombay. After the fields were cleared the ground was thick with grain that had been shaken out in harvesting, and the yield in straw seems especially good. Portions of Guzerat, such as Wadwan, Dholera, and neighboring districts have not had enough rain. The northwest provinces received a bountiful supply. Barsee and Sholapore have recently had a heavy fall, which will not do cotton any good. Rain has also fallen in the Berars, where it was not required for cotton.

H. Kains Jackson in London *Farmer*, Jan. 26: Blustering winds and rain have succeeded to the great frost that locked up land and water for a couple of months. The land has rested and should be better for its rest, and now demands active work from horses and men to be wrought into seeding condition. Undoubtedly the area planted with wheat this season must be reckoned very short, yet a fine spring and summer may well produce a good yield from fields that have not had their fertility washed out of them for two consecutive winters. The present improved prices of oats should stimulate the sowing of an increased breadth this spring. The special cold winter of the last half of the nineteenth century has had its influences nullified through an available supply of wheat being "visible" on board English ships. Millers and others have felt warranted in waiting for these coming stores, and in going on contentedly working up their mill stocks.

In answer to an inquiry the writer will state that farmers are as much if not more interested in having silver remonetized than are mine-owners. From 1868 to 1878 the price of wheat averaged at the port of New York \$1.32 1/4 a bushel, while from 1885 to

1888 the average was 87 9-10 cts per bushel. To illustrate still further the following table is given of the average prices at the port of New York:

	1868 to 1875.	1886 to 1888.
Corn, bushels.....	\$ 77 1/2	\$ 50 3-5
Wheat, bushels.....	1 32 1/2	87 9-10
Cotton, lb.....	15 1/2	10
Butter, lb.....	25	16
Cheese, lb.....	18 1/2	10

The price of silver from 1868 to 1875 continued at par \$1.29 1/2 per ounce, but from 1885 to 1888 the average price went below 80 cts an ounce. When the United States began in last year to purchase 4,500,000 ounces of silver per month, the price of silver advanced to over \$1 an ounce, and the price of wheat at the port of New York to over \$1.05 per bushel. Corn fetched more money, as did cotton, butter and cheese. Without going into details and giving exact figures we will state that with free coinage of silver, while mine-owners would be benefited about 30 per cent over to-day's prices, farmers would be benefited 25 per cent in the increased price of farm products. While mine-owners on their 52,000,000 ounces output of silver would get an increase of \$15,600,000 per year, farmers on wheat alone would get an increase of fully \$100,000,000 on their output of 400,000,000 bushels of wheat, while on corn a much larger sum would be realized, as they would also on cotton and dairy products.

General rains the past week, with well-distributed rains in the spring months, will give us the largest crop of wheat on record. The acreage seeded to wheat last year was about 2,550,000 acres, while this year our advices warrant the statement that it is fully 3,800,000 acres. The cool weather this winter caused the plant to stool out well and take strong root.

The local wheat market has held strong at full prices. The strength of the market is due to a freer export demand, owing to a slight advance in prices abroad. If there was an ample supply of disengaged spot tonnage in port, spot wheat would rule much higher; as it is, any advance in the wheat market abroad goes to ships at this port. In last month the ship ring commenced its usual tactics of decrying crop prospects so as to prevent ships from coming here for outward cargoes, which would mean, if successful, higher outward charters for wheat; but the rains this week have assured a large crop of cereals, which, if properly represented, will bring plenty of ships here to move the surplus grain. What our farmers want is cheap outward freights, cheap railroad freights to the East and cheap ship freights to the consumptive markets of the world. The high wheat charters this season should attract more ships to us. Oregon and Washington continue to send us wheat, but the receipts the past week from that source show a falling off.

The rains have allowed the bears on Call to hammer the barley market for futures, and in sympathy, spot barley has moved to lower figures. At the lower bids, sellers are more reserved, believing that the decline is temporary and that a recovery in prices must soon set in. The supply of barley in this State, Oregon and Washington is very light, while the consumption is large, and next season's barley will not be available much, if any, within four or five months. The Hawaiian Islands continue to draw freely. The demand from that source is for both the rolled and the grain.

Under continued free receipts and a stronger selling pressure, oats are weak at lower prices. As usual, when the market shades off, large buyers are offish, only buying freely when offered inducements by concessions. Advices report a large acreage seeded to oats.

Corn is fairly strong. The export inquiry for white is an important factor in keeping values up, as is the established fact that the supply in this State available to new crop season is light.

Rye and buckwheat are steady.

## Feedstuff.

Ground feed is slower, with holders shading prices. The stock of bran and middlings is large, owing to heavy receipts from Oregon and Washington, with the available supply up north still large. The rains naturally cause feeders to buy sparingly.

Hay is being shaded. Dealers and feeders buy as sparingly as possible. This they do owing to the rains assuring a large crop. The high prices that have ruled for hay for three years past will undoubtedly cause many fields of grain to be cut for hay. Indeed a large increase in the acreage seeded to grain was done for the purpose of cutting for hay. The feeding of hay in this State has doubled within the past five years, owing to more fruit farming.

## Live-stock.

The beef market exhibits more strength under lighter receipts and a free slaughtering demand. The poor scrubby stock appears to have been sold off. Mutton sheep are easier. Calves are firmer and fetch a slight advance. Hogs are easier. Fresh milk cows are about as heretofore reported. The market for dressed cattle is quoted as follows (to obtain the price on foot, take off from the price for stall-fed one-third to one-half, according to the nature of the feed and time fed; and for grass-fed take off the price from 40 to 60 per cent):

HOGS—On foot, light grain fed, 4 1/2@4 3/4c # lb.; dressed, 7@8 1/2c # lb.; heavy, 4 1/4@4 3/4c # lb.; dressed, 6 1/2@7 1/2c # lb. Stock hogs, 3 1/2@4c # lb. BEEF—Stall fed, 6 1/2@7c # lb.; grass fed, extra, 6@6 1/2c # lb.; first quality, 5 1/2@6c # lb.; second quality 4 1/2@5c # lb.; third quality, 3 1/2@4 1/2c # lb.; bulls and thin cows, 2@3c # lb. VEAL—Small, 8@9c # lb.; large, 6@7c. MUTTON—Wethers, 8@9c # lb.; ewes, 7 1/2@8 1/2c # lb.; spring lamb, 15@16c # lb.

## Fruits.

Common to fair apples are in buyers' favor, but choice to something extra bold firm, owing to limited supplies. Receipts continue free.

Rains and the weather in general are favorable to the fruit crops. With the average spring weather, the yield of all kinds will be large. The large majority of fruit-growers are giving more attention to systematic fruit-growing. This will cause dealers in this city to look for better fruits.

Dried fruits are more inquired after on Eastern orders, causing slightly higher bids for prunes, apples, grapes and figs. Peaches are reported slow, with buyers offish, but with a better market for the other kinds, peaches will also improve.

A strong systematic bear move is being made against raisins. There is really no occasion for it, unless it is a desire on the part of buyers to bear the

market so as to buy up the stock. It is many months before the new-crop season, and to meet trade requirements up to that time, the supply in this State is light.

The same kind of bearing noted in raisins is being done in oranges. Some so-called fruit-growing papers aid the bear movement by giving only unfavorable statistics so as to discourage growers and induce selling. There is nothing in the present situation to warrant a selling pressure for the better kinds possessed of good keeping qualities. The weather does not force maturing, and with slow ripening the market is more evenly fed. Heavy shipments are being made to Eastern distributive centers.

With clearing skies, there is a better inquiry for oranges. While we quote Navel's slightly lower, yet sales are made in a small way at last week's quotations, or 25 cents a box over to-day's quoted prices. Limes are scarce and higher.

## Vegetables.

Garden truck is making good progress with more favorable growing weather. Asparagus is coming in more freely, as is lettuce and other early vegetables. With next month the market will be well supplied with all kinds of early vegetables.

Onions are in light supply and higher under a fair demand. Table onions are, as yet, in light supply. There will be a large increase this year in the acreage devoted to onions in California, Oregon and Washington.

Potatoes are higher. Shipments overland in last month were quite large. Rains the past week interrupted receipts, which was taken advantage of by a few speculative dealers here to send prices up. The warehouse stock in this city is quite large, while the available supply at many shipping points is said to be large. The better prices will naturally induce heavy shipments from Oregon and Washington.

Seasonable garden truck (asparagus, etc.) is on the down-grade, while cabbage and cauliflower are higher. There is a good demand for cabbage for shipment both Eastward by rail and up north by sea. It is claimed that the market will go higher.

## Miscellaneous.

From the *Commercial News* of Feb. 18th the following summary of tonnage movement is compiled:

On the way to	1891.	1890.
San Francisco.....	300,989	187,858
San Diego.....	10,934	13,127
San Pedro.....	6,433	3,783
Oregon.....	30,173	26,700
Puget Sound.....	14,154	16,692
Totals.....	362,683	248,160

In port at

San Francisco, disengaged.....	7,000	9,639
" engaged for wheat.....	44,652	73,421
San Diego.....	3,451	
San Pedro.....		3,365
Columbia River.....	10,174	
Puget Sound.....		
Totals.....	65,277	80,425

To get the carrying capacity, add 65 per cent to the registered tons as given above.

From July 1, 1890, to Feb. 13, 1891, the following are the exports from this port:

Wheat, cts.....	7,710,489	8,444,052
Flour, bbls.....	726,335	718,864
Barley.....	201,686	874,055

Poultry is fairly firm. The action of the supervisors of this city in passing an ordinance, forbidding the selling of wild ducks and English snipes in this city from March 1 to September 1 of each year will have a beneficial influence on the poultry market. The heavy supply of wild ducks always has a bad effect on the poultry market.

Honey is in light supply. The demand is light. Opinions differ regarding the yield this year.

A large dealer in beans has been and is still systematically bearing the bean market. While doing this, openly, he is, through others, quietly buying all he can get at lower prices. The demand East will soon increase, and as the supply here is light, there does not appear to be any valid reason why holders should press sales.

Hops are reported unchanged. To buy gilt-edged, full prices have to be paid. In wools there is absolutely nothing new to report. Scourers are about the only buyers.

A better inquiry, since the rains, is reported for grass seed.

Overland shipments in last month over the Southern Pacific railroad route aggregate as follows, in pounds: Beans, 2,849,625; brandy, gals, 69,750; wine, gals, 1,028,738; fruits, dried, 2,007,350; citrus, 672,630; deciduous, 22,900; canned fruits, 942,710; honey, 62,950; hops, 86,660; potatoes, 1,759,670; raisins, 1,329,740; vegetables, 664,150 wool, grease, 1,228,420, pulled, 227,190, scoured 497,160.

Exports by sea the past week aggregate as follows: Flour, bbls, Tomaco, 80; Guayaquil, 980; Panama, 655; Mexico, 490; Central America, 4225; Liverpool, 12,005; China, 23,745; Japan, 1577; Hilo, 375; Wheat, cts, Liverpool, 14,759; Dunkirk, 86,733; Cork, 112,188. Beans, lbs, Panama, 1534; Mexico, 10,000; China, 8059; Hilo, 5821; Hong Kong, 29,800. Wine, gals, Mexico 1124; Central America, 3407; Brooklyn, 300; Philadelphia, 1250; Buffalo, 481; New York, 49,562; Liverpool, 1457; Victoria, 718. Raisins, bxs, Mexico, 883; Central America, 51. Barley, rolled, cts, Hilo, 1792. Corn, cts, Central America, 1810. Brandy, gals, New York, 1647; Liverpool, 9597. Hay, bbls, Hilo, 725. Dried fruits, lbs, Scotland, 380. Canned fruits, cs, China, 153. Wool, lbs, Liverpool, 45,804. Cotton, lbs, Liverpool, 50,719. Bran, sks, Hilo, 2110. Honey, cs, Liverpool 407. Sugar, lbs, Japan, 192,344; Hong Kong, 6200.

## "Worth Thrice Its Cost."

A fruit-grower of Tulare county writes as follows: I find the book "California Fruits and How to Grow Them" worth thrice its cost to any one who is raising fruit trees and vines.

He sends a dozen names of fruit-planters in his neighborhood who would be likely to purchase the work. Such commendation and interest are very encouraging.



Domestic Produce.

Extra choice in good packages fetch an advance on top quotations, while very poor grades sell less than the lower quotations.

WEDNESDAY, Feb. 18, 1891.	
BEANS AND PEAS.	Brazil, 19 @ 20
Bayo, chl., 3 55 @ 3 85	Pecans small, 12 @ 14
Butter, 3 00 @ 3 30	do large, 15 @ 18
Peas, 2 75 @ 3 15	Peanuts, 5 @ 6
Red, 2 75 @ 2 95	Filberts, 12 @ 15
Pink, 2 75 @ 2 95	Hickory, 12 @ 15
Small White, 2 50 @ 2 80	Chestnuts, 12 @ 15
Lima, 2 75 @ 3 00	Pine nuts, 7 @ 8
Fla Peas, blk eye 1 90 @ 2 00	Silver Skin, 4 00 @ 4 50
do green, 2 25 @ 2 50	POTATOES.
do Niles, 1 75 @ 1 90	Early Rose, sks, 75 @ 90
Split, 41 @ 50	Tomatoes, 1 00 @ 1 15
BROOM CORN.	do large, 65 @ 75
Choice to Extra, 70 @ 90	Burkhardt, 90 @ 1 00
Fair to Good, 52 @ 65	do Balinas, 1 25 @ 1 50
Poor, 2 50 @ 47 50	do Petaluma, 1 20 @ 1 05
CHICORY.	do Humholdt, 1 20 @ 1 50
California, 5 @ 6	do Oregon, 1 30 @ 1 50
German, 6 @ 6	Jersey Blues, 70 @ 90
DAIRY PRODUCE, ETC.	POULTRY AND GAME.
Cal. Poor to fair, 20 @ 30	Hens, doz, 5 00 @ 7 00
do good to choice, 32 @ 34	Roosters, old, 4 50 @ 6 00
do Gilted, 35 @ 40	do young, 6 00 @ 7 50
do Creamery rolls, 35 @ 40	Broilers, small, 3 50 @ 4 00
do Eastern tubs, 25 @ 30	do large, 5 00 @ 6 00
do do dairy, 20 @ 25	Fryers, 5 50 @ 6 00
CHEESE.	Ducks, tame, 5 00 @ 6 00
Cal. choice mild, 12 @ 13	do large, 7 00 @ 8 00
do fair to good, 10 @ 12	Geese, pair, 1 50 @ 2 00
do Gilted, 14 @ 15	Turkeys, Goh't, 12 @ 13
Young America, 13 @ 15	Turkeys, Hens, 14 @ 15
N. York Cream, 13 @ 15	do dressed, 12 @ 16
Western, 11 @ 13	Pigeons, 1 75 @ 2 50
EGGS.	Rabbits, doz, 1 25 @ 1 50
Cal. ranch, doz, 20 @ 21	do Hare, 1 50 @ 2 00
do do selected, 21 @ 22	Quail, 75 @ 1 00
do store, 18 @ 19	Snipe, English, 2 00 @ 2 50
Eastern, fresh, @	do Jack, 75 @ 1 00
FEED.	Ducks, Mallard, 3 00 @ 4 00
Bran, ton, 21 00 @ 22 50	do Canv'shack, 4 00 @ 6 00
Feedmeal, 29 00 @ 31 00	do Sprigs, 75 @ 1 00
Gr'd Barley, 51 00 @ 52 50	do Teal, 75 @ 1 00
Middlings, 24 00 @ 25 00	do Widgeon, 75 @ 1 00
Oil Cake Meal, 26 00 @ 28 00	do Small, 75 @ 1 00
Manhattan Food, 100 lbs 7 50	Geese, Gray, 2 00 @ 2 50
HAY.	do white, 1 25 @ 1 50
Compressed, 13 50 @ 15 50	Bran, 1 00 @ 1 25
Wheat, per ton, 13 00 @ 15 00	Sea Brant, 1 50 @ 2 00
do choice, 18 50 @ 20 50	Honkers, 3 50 @ 4 50
Wheat and Oats, 13 00 @ 15 00	EGG POOL.
Wild Oats, 13 50 @ 15 50	Manhattan, 12 @ 13
Tame, 12 00 @ 14 50	PROVISIONS.
Barley, 11 50 @ 14 50	Cal. Bacon, h'e'v'y, lb, 9 @
Barley and Oats, 11 50 @ 14 50	Medium, 9 @
Alfalfa, 11 00 @ 13 00	Light, 13 @
Straw bale, 70 @ 80	Lard, 9 @
FLOUR.	Cal. Sm'd Beef, 11 @ 12
Extra, City Mills, 4 00 @ 4 25	Hams, Cal., 11 @ 12
do do, 4 00 @ 4 25	do Eastern, 12 @ 12 1/2
Superfine, 3 00 @ 3 50	SEEDS.
GRAIN ETC.	Alfalfa, 7 @ 7 1/2
Barley, feed, chl., 1 43 @ 1 47 1/2	Canary, 21 @ 23
do Choice, 1 43 @ 1 47 1/2	Clover, Red, 9 @ 10
do Brewing, 1 43 @ 1 47 1/2	White, 17 @ 18
do do Choice, 1 53 @ 1 57 1/2	Oatton, 20 @ 21
do do Gilted, 1 57 @ 1 61 1/2	Flaxseed, 25 @ 26
Buckwheat, 1 45 @ 1 65	Hemp, 31 @ 32
Corn, White, 1 32 1/2 @ 1 37 1/2	Italian Rye Grass, 10 @ 11
Yellow, large, 1 30 @ 1 33 1/2	Perennial, 7 @ 9
do small, 1 35 @ 1 37 1/2	Millet, German, 5 @ 6
Oats, milling, 1 19 @ 1 25	do Common, 5 @ 6
Surprise, 1 19 @ 1 25	Mustard, yellow, 2 20 @ 2 50
Feed, Ochoas, 1 30 @ 1 35	do Brown, 21 @ 23
do good, 1 37 @ 1 41 1/2	Rape, 21 @ 23
do fair, 1 37 @ 1 41 1/2	Ky. Blue Grass, 25 @ 27
do Gray, 1 82 1/2 @ 1 90	Sweet V. Grass, 75 @ 80
do Black, 1 70 @ 1 90	Orchard, 14 @ 16
Rye, 1 30 @ 1 35	Hungarian, 7 @ 8
Wheat, milling, 1 43 1/2 @ 1 47 1/2	Lawn, 27 1/2 @ 28
Gilted, 1 43 1/2 @ 1 47 1/2	Mesquit, 7 @ 8
do Choice, 1 41 1/2 @ 1 45 1/2	Timothy, 51 @ 52
do fair to good, 1 37 @ 1 41 1/2	CATTLE.
Shipping, choice, 1 33 @ 1 37 1/2	Refined, lb., 3 @ 3 1/2
do good, 1 37 @ 1 41 1/2	Wool - SPRING, 1890.
do fair, 1 32 @ 1 36 1/2	Humb't & Mon'cio, 19 @ 22
Sonora, 1 32 1/2 @ 1 36 1/2	Sacto valley, 15 @ 24
HIDES.	Free Mountain, 18 @ 24
Dry light to h'vy, 9 @ 10	S. Joaquin valley, 17 @ 22
Salted, 8 @ 9	do mountain, 17 @ 22
HOPS.	Cal's & Fth'l, 15 @ 24
Oregon, 1890, 30 @ 40	Oregon Eastern, 13 @ 22
Cal 1890 Choice, 37 1/2 @ 40	do valley, 20 @ 25
do Fair to G'd, 30 @ 36 1/2	So'n Coast, def., 10 @ 14
NUTS-JOBING.	So'n Coast, free, 12 1/2 @ 19
Walnuts, Cal. lb, 8 @ 9	FALL-1890.
do Ch'ce, 10 @ 11	North'n. choice, 12 @ 15 1/2
do paper shell, 11 @ 12	do defective, 14 @ 16 1/2
do Ch'li, 9 @ 10	Mountain Free, 13 @ 15 1/2
Almonds, b'd shl, 8 @ 9	S. Joaquin, def., 9 @ 11 1/2
Softshell, 13 @ 14 1/2	Southern do., 9 @ 11 1/2
Paper shell, 14 @ 16	

Fruits and Vegetables.

Choloe selected, in good packages, fetch an advance on top quotations, while very poor grades sell less than the lower quotations.

WEDNESDAY, Feb. 18, 1891.	
Bananas, bunch 1 50 @ 2 50	VEGETABLES.
Limes, Mex 7 00 @ 8 00	Okra, dry, lb., 10 @ 17 1/2
do California, @	Peas, chl., 1 25 @ 20
do do small bxs 1 00 @ 1 25	Peppers, dry, lb, 12 @ 17 1/2
Lemons, box, 2 00 @ 2 50	Turnips, chl., 75 @ 100
do Riverside, 2 00 @ 2 50	Beets, sk., @ 1 00
do Los Angeles 1 25 @ 1 50	Cabbage, 100 lbs 60 @ 70
do St. City, bx., 6 00 @ 7 00	Carrots, sk., 50 @ 70
Seedling Oranges	Marrowfat, ton 20 @ 25 00
do Riverside, 1 75 @ 2 00	Garlic, lb., 3 @ 5
do Los Angeles 1 00 @ 1 25	Asparagus, lb., 20 @ 25
Navel Oranges.	do Roudin, 40 @ 50
do Riverside, 3 75 @ 4 00	Mushrooms,
do Los Angeles 2 25 @ 2 75	Common, lb 20 @ 25
do do scaly, 1 50 @ 2 00	Choice, 40 @ 50
do Duarte, 1 50 @ 3 50	Celery, per doz, 50 @ 60
Pineapples, doz 4 00 @ 5 00	Caulliflower, doz 55 @ 65
Apples, com box 40 @ 50	Peas, green lb., 4 @ 5
do good, 75 @ 1 00	Summer Squash, 9 @ 10
do choice, 1 25 @ 1 50	Tomatoes, box, 1 00 @ 2 00
do Gilted, 2 00 @ 2 50	
do Mountain, hhl., @	

\*In quoting oranges, regular sizes are given, viz., from 112 to 176 for Navel, and 126 to 226 for seedlings; odd sizes 50 cents to \$1 1/2 box less.

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Extra inducements will be offered for a few active canvassers who will give their whole attention (for a while at least) to soliciting subscriptions and advertisements for this journal and other first-class popular newspapers. Apply soon, or address this office, giving address, age, experience and reference. Special inducements to old agents.

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PACIFIC COAST WEATHER FOR THE WEEK.

[Furnished for publication in this paper by officer in charge of branch Signal office, Division of the Pacific]

DATE.	Olympia.			Portland.			Eureka.			Red Bluff.			Sacramento.			S. Francisco.			Fresno.			Keeler.			Los Angeles.			San Diego.		
	Rain.	Temp.	Wind.	Rain.	Temp.	Wind.	Rain.	Temp.	Wind.	Rain.	Temp.	Wind.	Rain.	Temp.	Wind.	Rain.	Temp.	Wind.	Rain.	Temp.	Wind.	Rain.	Temp.	Wind.	Rain.	Temp.	Wind.	Rain.	Temp.	Wind.
W.	.48	40	W	.34	40	SW	.08	48	SW	.00	54	S	.00	55	S	.00	52	S	.00	54	NW	.00	48	W	.00	54	W	.00	58	S
F.	.30	38	S	.56	40	S	.12	54	S	.02	54	S	.00	56	SW	.00	52	S	.00	60	NW	.00	50	W	.00	56	W	.00	58	W
S.	.12	34	S	.52	38	S	.00	40	S	.02	50	S	.00	54	S	.00	52	S	.00	62	S	.00	50	W	.00	58	W	.00	60	W
S.	.00	40	S	.24	40	SW	.00	40	S	2.02	44	N	.22	50	S	.04	52	S	.00	58	S	.00	56	W	.00	56	W	.00	60	W
S.	.01	32	NE	.00	32	NE	.00	40	NW	.76	54	S	.236	46	N	.16	54	E	.10	48	S	.01	52	S	.00	58	S	.00	58	S
M.	.00	38	SW	.00	42	S	.00	48	S	.00	54	SW	.00	50	W	.00	52	NW	.01	52	S	.01	52	S	.01	52	S	.01	52	S
T.	.20	36	N	.10	42	NE	.00	48	S	.00	50	NW	.04	48	O	.00	54	S	.00	54	S	.00	54	S	.00	54	S	.00	54	S
11.	1.11	36	N	1.7	42	NE	.20	48	S	3.06	50	NW	.24	48	O	.16	54	S	.11	54	S	.123	54	S	.82	54	S	.82	54	S

EXPLANATION. - Cl, for clear; Cy., cloudy; Fr., fair; Cm., calm; - indicates too small to measure. Temperature wind and weather at 5 P. M. (Pacific Standard time) with amount of rainfall in the preceding 24 hours. T indicates trace of rainfall. P C, partly cloudy. Rn., rain.

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Red soil, superimposed upon upturned, friable, decomposing slate, yielding iron and alumina, thus furnishing a soil which, as Prof. Hilgard said after his analysis, will retain moisture, will not require irrigation, and will not allow the vegetable mold to leech away; thus suited to the growth of fruit trees, especially the olive, as has been demonstrated both by the remarkable growth of the tree and the yield and the quality of oil.

It is situated only 15 minutes walk from Auburn Station—the C. P. R. R. passes along one side—and is a less distance from the Court House. Thirty acres improved and planted to olives, set at long distances for permanent growth, and other fruits planted between the rows for temporary profits, mostly peaches of three best varieties, ripening in succession; prunes, mostly Petite; plums of several varieties, as Kelsey, Japan, Shropshire Damson, etc.; figs of several best varieties; a few apples, nectarines, blackberries, etc. Two acres of table and raisin grapes, never irrigated, the vines remarkably vigorous and in full bearing. The trees, especially the 1500 olive, have all been planted with regard to permanency. About one-half of them have an orchard growth of seven years; fruited last year 300 pounds, this year nearly one ton. They are mostly Mission and Picholine, with a few trees of other choice varieties. Two crops of the olives have been pressed. The yield has been, for the first press, 14 per cent of very clear delicious table oil, and four per cent from the second press—the Picholine yielding this, of a peculiarly clear, nutty oil.

There is on the ranch a few acres of grain sown for hay; two acres of well-set alfalfa, below the Auburn ditch, which crosses one corner of the property; also a small house of four rooms and a kitchen; a well of good water; a small barn; a strong, permanent spring of soft, cold water, which wells up through the slate; a two-inch iron pipe connects the spring with an iron-bound 20,000-gallon tank, situated on a beautiful pine clad hill, 40 feet above the spring, a point which overlooks the town and gives very charming distant views, and is one of the most lovely sites for a residence to be found. The water is pumped to the tank by a duplex pump; the power, a four-horse steam engine, which furnishes power sufficient to pump, saw wood, run an olive crusher and do all needed shop work.

The land is all suited to fruit, excepting along a rocky ridge, which furnishes three very desirable residence sites, and the olive, set promiscuously, thrives finely among the rocks. The property can be conveniently divided along a sag which separates two of the big knobs, and water from the spring can be pumped to each of them.

This desirable property is now offered for sale for less than the improvements cost. The land is fenced, the title good and unencumbered. It is connected by a roadway, which is one of the improvements made, with one of the principal streets of Auburn.

The sale will convey the entire plant, furniture in the house, all utensils, etc. If sold before April 1st the sale will include the coming crop. If later, the crop will be reserved, unless otherwise by special agreement. If desired, one-half the purchase money can remain five years, secured by mortgage at eight per cent. For price and any further information desired, address

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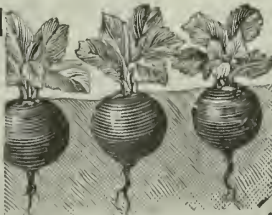
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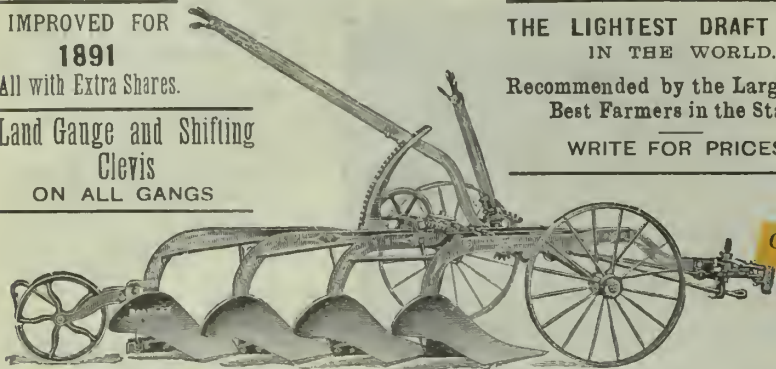
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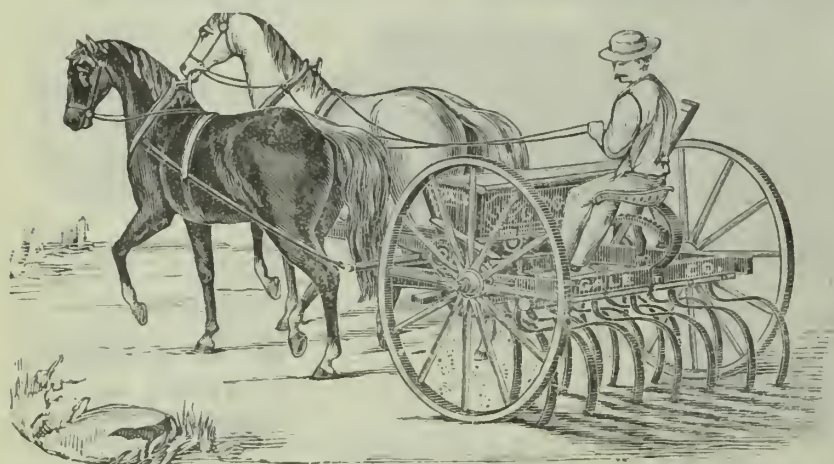
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CALIFORNIA  
STATE

# PACIFIC RURAL PRESS

Vol. XLI.—No. 9.

SAN FRANCISCO, SATURDAY, FEBRUARY 28, 1891.

{ DEWEY & CO., Publishers,  
Office, 220 Market St.



THE KING OF SEMI-TROPICAL FRUITS AS GROWN IN SOUTHERN CALIFORNIA.—See page 188.



## CORRESPONDENCE

Correspondents are alone responsible for their opinions.

## A Colony in Capay.

EDITORS PRESS:—A year ago a couple of gentlemen from Oakland, wishing to buy a piece of land and make a fruit farm of it, came to this valley and were very much pleased with it. When they returned they found friends that wanted land also. They then came up and selected a tract of 220 acres of hill land lying half-way up the valley, which they bought and divided among themselves.

By this time there were so many wanting land that there was not enough to go round. It was then suggested that they organize a stock company and buy a larger tract of land. The result was that in June following the Western Co-operative Colonization and Improvement Co. was incorporated with a capital of \$100,000. They then bought 400 acres of valley land joining the above tract. This was soon all sold and the company has lately added 200 acres more to it. This is nearly all sold. The company is selling all of its lands on five years' time, provided each year's interest is paid in advance and the land is improved. This enables people of small means to get a nice home. The company does the work for the colonists that do not live here and gives work to all those living here.

There are being put out here about 40,000 trees and 20,000 vines. This includes 800 oranges and lemons. There are orange trees growing in the valley which do well and bear good crops. The largest number of the trees to be put out are peaches and apricots for early shipment. This valley is claimed to be the earliest section in the State. Besides the planting in the colony, there have been some over 200 acres set out to trees and vines. There are here at present 15 colonists besides children. There has been some building done, and more will be done this spring and summer.

We do not expect to have much of a town here, but expect to have quite a colony here and a lovely place to live. Capay valley is located about 90 miles by railroad northeast of San Francisco. It is a beautiful valley, 20 miles in length and an average width of two and one-half miles. Cache creek, which is the outlet of Clear Lake, flows the full length of it and will furnish a large amount of water for irrigation if it is necessary.

Irrigation is practiced but a very little here, as all deciduous fruits do well without it. The Clear Lake division of the S. P. runs through the valley.

BERT L. HICKOK.

Tancred Colony, Capay Valley.

## Wooden Water Pipes.

EDITORS PRESS:—J. W. C., of El Dorado Co., asks about water logs. I have had an experience of over 40 years with them.

Ordinarily, pine will outlast spruce. No "coating" has yet been discovered of much value. Wood to be benefited by any preservative substance under ground, must be filled—saturated with it. Often these "coatings" are a positive detriment.

Redwood is the best. Easily rived, easily worked and durable. We cut them post length, so that what will not do for water pipes will go for posts. I have often selected them from piles of posts.

No cement is needed at the joints. One end is bored out large, the other tenoned to fit and driven water tight.

There is some difficulty in making large pipes of wood. I have been in pursuit for several months of an auger to make four-inch pipes. It is made of gas pipe 10 or 12 feet long, and should clear itself in making the whole joint, leaving a core in the center. I should be much obliged to any reader of the PRESS who would give me the required information. There is one in San Francisco, but the owner does not know who made it, where he got it, or what it cost. He makes pipes for sale.

Wooden pipes have some advantages over metallic. Where good material is at hand they are cheaper. Nearly if not all the work can be done upon the farm. Repairs and alterations are easily made without the aid of a plumber, which most will appreciate. They are less affected by heat or frost, and keep cleaner inside than metallic pipes which choke up with rust and sediment, and deliver the water pure and safe.

D. M. LOCKE.

Santa Cruz.

## Who Will Help in This Matter?

EDITORS PRESS:—I was glad to see in your issue of Feb. 7th that part of the report of the Secretary of Agriculture relating to California. It ought to show to the farmers of our State that the Department is doing all in its power to place the claims of the State where they belong and is anxious and willing to do all it can to represent the agricultural resources of our community. But I must say that we get little response to all the exertions we make to obtain reliable information. I have been State Statistical Agent now for six years and have not been able to organize such a corps of county correspondents as I could wish to fully repre-

sent the manifold resources of our glorious State, destined, as I believe it to be, to become the first in our Union. I have tried to obtain it through our county assessors, but from all the counties in the State I obtained about a dozen responses, yet the labor and trouble is so insignificant. The circulars are sent to the correspondents each month with the queries plainly printed under a return envelope addressed to me, and five minutes' work will fill them out, yet the majority of our assessors are not even willing to take this slight trouble.

As your paper reaches all the leading farmers and fruit-growers of the State, I have thought that an appeal through its columns would perhaps secure such a corps of contributors as we need. Will not some enterprising farmer and fruit-grower in each county who is willing to take this slight labor upon himself give me his or her address, so that I can send the circular every month? As remarked before, it will only be the labor of a few minutes to fill them out, inclose them in a free envelope, sent to them and return by next mail. The trouble is very slight, and the advantages accruing to the State by being truthfully represented in the reports of the Department should be apparent to every one. Besides, it entitles the correspondents to the distribution of new and valuable seeds and plants, and such documents as are issued from time to time by the Department.

I wish to hear from every county in the State. Is there not enterprise enough in a few citizens of each to send me their address? I shall be glad to obtain any assistance in representing the State as it should be. Let me hope that this appeal will not be in vain, and that among the thousands of intelligent farmers whom the RURAL PRESS reaches, enough will be found to respond to it.

GEORGE HUSMANN,

Napa Cal.

S. S. Agent, Dept. of Agr.

## THE APIARY.

## Honey-Houses.

EDITORS PRESS:—I think that all persons who contemplate going into the bee business to any extent should have a good honey-house and storeroom combined, where they may keep their comb and extracted honey, empty hives, frames, sections and implements used in an apiary.

One of the best honey-houses I ever saw belonged to Mr. Adam Warner of Clarksburg, Yolo county, Cal. It was a two-story building, size, about 12x30; the outside boarded with rustic, the inside lined with flooring, tongue and groove, which made a house perfectly bee-tight. The cost, he informed me, was about \$300. The upstairs part of the building he used for a workshop, where he put his hives together and one-piece sections; the lower part of the building was divided into two rooms; one room was for storing honey and preparing it for market, the other a kind of a wax-room where he melted his wax and where he intended making his comb foundation.

He had quite a novel arrangement for keeping ants out of the honey-house, which he assured me worked first-rate.

He had the foundation posts of the building setting in small cans of tar. (He had taken an ordinary five-gallon oil can and cut it off about four inches from the bottom, making a can almost four inches deep.) The building stood off of the ground about two feet; eighteen inches of that distance was a mason work, and the other six inches foundation posts, which rested in cans of tar.

I asked him if the ants would not crawl over the tar after it became hardened with the influence of the weather, and he informed me that they would not; he said that once a month he stirred the tar up a little with a stick.

I think it is the smell of the tar, more than their fear of crawling over it, that keeps them from crossing.

I looked well while I was there to see if I could find any ants attempting to cross it, but I did not notice any.

## Honey Plants of Sacramento Valley.

The bee pasturage in the Sacramento valley is getting better every year, as more land is being set to alfalfa and fruit.

I find that the principal honey plants of Sacramento, Yolo and adjoining valley counties are wild grape, wild rose, swamp willow, alfalfa, clover, Spanish needle, sycamore, several different varieties of mints, fruit bloom, corn, wild chloory, button bush, white button willow and Canada thistle.

This last, the Canada thistle, has got a pretty good start in that country in the pastures and waste pieces of land. Canada thistles are excellent honey plants.

The levees in that section of the country have a thickest growth of alfalfa on both sides, which, it is claimed by some, help to strengthen the levees against the high waters in the winter-time, while by others it is claimed that growing alfalfa on the sides of the levees is a nuisance and a damage; that the gophers tunnel the levee searching for the roots of the alfalfa, and thus undermine it and make it insecure against the high waters.

Last winter, and until late in the spring, the bee pasturage was flooded with water and bees did not do very well this last season.

Mr. Warner has his apiaries elevated from

the ground from 8 to 12 feet. He has a good strong platform made, which is about six feet wide at the top. He places about 50 hives on a platform. All the hives set side by side and all are painted red, and he tells me that the bees never have any trouble in discerning or finding their right hive. Underneath the platform I saw where he had taken off a great number of combs, where the bees, after filling their hives, had commenced building out in the open air. Colonies had built side by side, and I suppose on warm days the bees of one colony must have surely intermixed with the bees of another.

If bees were inclined to rob in that location like they do in some places, the bee-keeper would have endless trouble by the colonies building out in the open air, but Mr. Warner informs me that he has never been troubled by bees robbing. They always seem to have sufficient pasturage to keep them out of mischief.

I asked him if he did not lose a good many queens by having the hives set so close together and he informed me that he rarely if ever lost a queen that way.

All his hives are the Harbison style, and open at the top and back. We opened several; they all seemed to have an abundance of bees and honey. All Mr. Warner's apiaries were surrounded by water until late in the season this year, and as a consequence a great many bees were lost in the water.

Mr. Warner keeps from 250 to 300 stands of bees, all of them elevated from 8 to 12 feet above the ground.

S. L. WATKINS.

Grizzly Flats, Cal.

## Bee Notes.

EDITORS PRESS:—Gleanings in Bee Culture recently stated that California was a good country for bee men to emigrate from, because a Mr. Trickley had advised them that coal oil was \$2.50 a can, lumber \$50 a M., wages \$5 a day, etc. I sent Mr. Root a retail price-list and market reports showing him that Trickley had tricked him, and at the same time regretting that wages were not \$5 a day. Instead of acknowledging the corn, Root writes me that I must "remember that Trickley lives away out of civilization, the eastern slope of the Rockies" (Nevada). I wonder if "Uncle Moses" has ever heard that touching ballad: "Where was Moses when the light went out?" California offers advantages to the bee-keeper not possessed by any other portion of the United States. The past season the fruit and honey crop of all the East was a dismal failure—California excelled herself. This winter the Eastern bee-man has had to borrow money to buy sugar to feed his starving bees, while the California bee-keeper has not only not needed to feed, but on examination will find that the bees are full of supplies; in fact don't seem to have drawn on their supplies at all, as almost every day so far this winter, the bees have gathered from some source sufficient for their needs, and unless the weather changes, a portion of their supplies will have to be extracted next spring to make room for the queen's egg-laying. Contrast this with the Eastern man's 20 pounds of honey to a hive, for the season, with our 100 to 400 pounds. Their expensive hive and cellar, our absence of the same; their heavy expense for feed, our excess of supplies, and where does the Eastern bee-man stand? The only advantage he has had over us has been the fact that there was no regular beehive factory on this coast, and in consequence all of our supplies had to come from the East at an added cost of 50 per cent for freight, to say nothing of the loss from delay. To remedy this I called the attention of Mr. S. F. Woodworth, the proprietor of the Clipper Gap box factory, Placer Co., to the wants of the Pacific Coast bee-men, and he promised me he would think of it. To think is evidently to act with him, as Mr. Root of Medina, O., has just written me: "Mr. Woodworth of Clipper Gap called yesterday and ordered machinery for the manufacture of bee supplies, so I suppose you will be placing your future orders with him." This handicap removed and cheap supplies promptly furnished at Eastern prices, the California bee-man can make honey at a profit for one-half the price required by the Eastern apiarian.

Murphys, Cal.

E. H. SCHAEFFLE.

## POULTRY YARD.

## Poultry Talk.

EDITORS PRESS:—The season up to date at least and with fair promise of its continuance for some time to come, has been somewhat unfortunate for poultry raisers in this locality; and so far as I have been able to learn, most other localities as well. It would seem to furnish a new experience almost in the raising of fowls. The general prevalence of roup and diphtheria in their various forms has called forth all efforts to arrest and cure these deadly destroyers, but as usual in large flocks, the loss has been considerable; in fact I think greater than has been known for many years, while in cases where the number of fowls kept were smaller as for family use simply and for the sale of a few surplus eggs and fowls, these diseases have made themselves sensibly felt. It

has been principally, however, among young and half-grown fowls, not confining itself, however, to them solely, but showing itself among the older and fully grown fowls, and in spite of all known remedies and preventives, apparently ruining its course. Among my own fowls I do not think that in any case where either of these has shown itself, I have been able to effect a cure, as the development of the disease has been so rapid as to take such strong hold of the system as to defy all efforts in the direction of cure, and the result has been speedy death and burial. I am afraid almost to say how many chicks and even fully grown young fowls I have lost and others seem to have lost in like proportion. Many come and many write to know what can be done to cure their fowls already sick, and to stop the spread of it among their well ones, but there seems to be no stop to it until the weather becomes milder, warm days and sunshine, with, of course, all that one can do in the use of remedies and preventives will, I think, end it.

Some of my inquiring visitors were surprised that I, whom they looked on as authority in the matter of keeping fowls in health and condition, should have sick and dead fowls from causes which they supposed, from my long experience and reputation as a successful poultry raiser, I should be able to control and avoid. It was a sort of case of "physician heal thyself," but even physicians' families and physicians' poultry-yards are not exempt, even with all care and watchfulness, from the common ills of humanity or of poultry, and they can only do as they advise others to do in like cases, and trust to a higher power than their own. No remedies are infallible, and no care or watchfulness certain of success, but none the less should they be observed or made intelligent use of, for a portion of the yard is almost any case, by the persistent efforts and untiring watchfulness of the owner, may be saved and not all of them lost, as would almost certainly be the case were the keeper indifferent or discouraged.

The long continuance of the cold foggy spell during the months of December and January was a time peculiarly favorable to the development of these diseases among fowls and in many cases would seem to have infected the entire flock, making the usual remedies seemingly almost of no avail, but none the less should one continue to use them or any others that they think may lead to a cure. I know of nothing better than a free use of lime in their water and in their quarters, which should be kept scrupulously clean and well aired, changing the water at least twice a day, and oftener if you like, as it becomes unfit for use from the contagious matter.

One cannot always know when a fowl is sick until it is sick enough and has been so long enough to cause harm to others, or it would be easier to arrest the spread of the disease. The sick ones, however, should as soon as they are known to be infected be immediately removed from the flock and given warm, well-aired quarters and treated with sulphate of potash, or what I find to be just as effective, unsalted lime in their water freely for the diphtheria patients and a free use of sulphur for the roup. I do not know of anything better or more effective for a cure than these two simple but really powerful agents—"sure cures," to the contrary notwithstanding.

An acquaintance with whom I was comparing notes said: "I've experimented a heap," and I suppose the fact of the matter is with fowls as with humans, a great deal depends on the faithfulness and effectiveness of the nurse, probably not less than on the proper use of remedies.

This season has gone far in its effects to revolutionize somewhat my ideas in the matter of hen-house, and I incline more to the idea of having them as open as one can and avoid draughts on the fowls. How to do this I have not as yet settled in my own mind. In passing not long since by the place of a neighbor, a new settler, I noticed that his poultry-house had only corner-posts, roosts and roof, and on remarking to him that I thought it rather open, he replied: "I've never had healthier-looking fowls or had fowls lay better than these have done. I had not time, or in fact material to complete the house, and it had to go as it is." In my own case, my brightest-looking fowls are some which have insisted on roosting in trees or on fences.

As to eggs I can't say, but am inclined to think that one gets more eggs from yarded and housed fowls, but at the expense of greater care and more labor. It seems to be a fact among poultry-raisers that fowls yarded will yield 20 per cent more eggs than fowls ranging at large. It may consist in the fact that yarded fowls have certain known places in which to lay, while the free ones may lay where one does not find the eggs always. This is during the warm season, however, but in the colder months warmly housed fowls will undoubtedly lead in the matter of eggs.

As to houses in which to house poultry, while I don't altogether fall in with the open-all-around theory, yet I would approach as near to it as necessary to insure pure fresh air for the fowls, but without having it blow directly through the house on a line with the inmates. This object could be obtained by having, as I have often seen, one entire side of the house finished in lattice-work, when if all other sides are closed the wind cannot enter with sufficient force to cause a draught, as the air within being somewhat confined will present considerable resistance, enough, in fact, to



keep in check an ordinary wind, but this style seems to present some objectionable features, as for instance in the case of an unusual wind, of which we have more or less at all seasons of the year; the fowls would be subjected to discomfort and possible sickness, colds which often end in roup or diphtheria, or rheumatism or some other derangement of the system which is very apt to end fatally. Therefore a medium shelter seems necessary and one would, I think, find this in houses constructed in the manner I will describe in my next letter.

Lodi.

T. B. GÖFFROY.

### Poultry in San Diego County.

A very practical article, read at the County Horticultural Convention, held at San Diego, Feb. 3d and 4th, was that of Mrs. C. F. Thomas of Nestor, entitled "Poultry Raising." The National City Record says: Mrs. Thomas and her husband are both adepts in the business. After reading the paper, she answered quite a number of questions, one of which brought out the fact that some who start in the business do not succeed because they are afraid of the little necessary work it takes to make a success. She said that others went into the business too largely. They didn't commence in a small way and work up as they should. She stated further that too many chickens together would not do well. She noticed that when her flock reached over 100 the ratio of profit decreased as the number of chickens increased. The article is as follows:

The few remarks I shall make are from careful observation and the actual experience of several years. The keeping of poultry for profit means, in the first case, careful watching of the fowls and work. From my observation many persons aspire or wish to be doctors, lawyers, singers, public readers, fruit-growers, fowl-keepers, and many have other desires, but make very little effort to acquire their objects. One of the conditions most needed is work. If you wish to keep poultry for profit, as I remarked before, it means care and work. My experience has been the keeping of fowls for the production of eggs for market. For a nest for hatching we use an oil can with one end and one side cut out, and place the cut side down on the ground, then put in an inch of wood ashes, with soft straw on top. We have used this kind of nest for several years, and are quite satisfied with it.

We have never found mites in such a nest. Of course we clean the nest and use new ashes before using it a second time. If we have a hen that is a little unruly and we wish to set her, we use eggs for a day or two until she becomes satisfied with her nest, then we exchange the eggs for those we wish to hatch. We sprinkle water over the eggs when we set the hen, and then once a week until the day before the eggs hatch, when we immerse them in tepid water. We keep wheat and water always in the nest, and we have found it a very good plan to let the hen out in the later part of the afternoon, then she will return to her nest in proper time. If we wish to change hens that desire to set, we shut them up in a box or yard and allow them to fast, without food or water for three days, then give them sufficient food and water for one meal; then allow them to fast three days more. We have used this means for several years with success, and are satisfied that the hens lay sooner after this treatment. When the chickens hatch, put the hen and chickens in a good-sized box and set it in the sun for one day, after which the hen is put in a coop or box and the chickens allowed to run in and out at will. After the first day, feed cooked cornmeal and the warm breakfast, such as we prepare for all the fowls, also fresh water. Cracked corn and wheat as soon as the chickens will eat it. We have very good success with our little chickens. I use a feeding net for little chickens; the food is not wasted or trampled upon. Take a board three or four inches wide and a foot long, then take an inch and a quarter wire netting, make a half-circle by fastening to the sides of the board. The soft food is put in at the ends. I have known persons to recommend obtaining something from nothing in the feeding of hens. I have not been successful with such a method.

We give our fowls a warm breakfast every day in the year, and all the whole wheat they wish to eat from morning until night.

We feed red pepper, ground bone and charcoal, supply ground shells, are careful to supply fresh water and keep the water vessels clean.

During the last twelve months we sold \$200 worth of eggs at the market price, not including the eggs consumed by the family nor the eggs used for setting. My flock of hens laid in the last twelve months 11,522 eggs. In March they laid 1720. In October, 545, this being the smallest number laid in any month. The flock consists of Brown Leghorns. Over a year ago I endeavored to obtain a pure Brown Leghorn cockerel to improve my stock. I was unable to obtain such a cockerel in San Diego county. I failed to find it at the Escondido Fair of '89. I wrote to my brother at San Bernardino, asking him to obtain for me a pure Brown Leghorn cockerel and pullet, but was unable to find what I wished. A friend, who was interested, was going to Los Angeles, wishing to obtain some pure fowls for his own use. This friend did not obtain what was desired until he visited the Los Angeles Fair and saw Mr. Thurston's pure Brown Leghorn fowls on exhibi-

tion. Mr. Thurston received the first premium for pure Brown Leghorns.

I purchased from him one of the pullets for which he received the premium. I also purchased from him a cockerel of another family from the pullet.

Mr. Thurston keeps only pure Brown Leghorns. Last season, after setting all the eggs, from this pure stock, that I wished to hatch, I sold since last May \$30 worth of pure Brown Leghorn eggs and cockerels. I am selling eggs and cockerels to my neighbors. Sold eight pure fowl for the Otay mesa, also sold cockerels in National City, San Diego and Potrero. Shipped four cockerels to Vista to-day. We have now forty pure chickens hatched this winter. We have had but one chicken die this winter. The Brown Leghorns are excellent layers, as I have proven. They are good foragers, non-setters. They are a small fowl and require but little food to sustain them and are not inclined to fatten.

## THE FIELD.

### Castor Bean Growing.

We have so many inquiries about the growth of this crop that we republish the following essay, prepared some years ago by Geo. H. Peck, of El Monte, Los Angeles county.

My farm is on dry land; soil, a light-colored sandy loam. A good crop on such land is about six hundred pounds to the acre; on damp land, one thousand pounds and upward; on dry land irrigated and properly cultivated, the same. Dry land, over-irrigated and not suitably cultivated, yields no more than dry land without irrigation. Further: as excessive irrigation causes a heavy growth of stalk instead of beans, it may not produce as much as dry land seasonably and suitably cultivated.

If properly managed, the castor bean is more certain than most crops; gives small chance for loss, a good margin for profit, and is easily worked. It is an exceedingly good crop for farmers who have boys ten years old and upward, for they make good pickers, and picking is the heaviest and the only labor expense that the producer should be subject to.

PREPARING THE GROUND.—It should be plowed early and deep; the earlier and the deeper the better. If the plow leaves the land rough, fill the vacancies with the harrow or drag; otherwise, too much heat and air being admitted, it will dry out. Check out the rows six feet apart; leave avenues nine—or, if it be damp land, ten—feet wide, for wagons to pass through while gathering. When 25 acres or less are planted, make four rows; 25 to 75 acres, six; and on a larger area, eight rows. The acres planted should always be according to the number of pickers which can be kept constantly picking. Here is often a great and unnecessary loss; for if the crop be sufficient to employ pickers for only four days, and it becomes necessary to make work for them four more days until the next pick, picking will certainly cost two cents when it should be only about one cent per pound. About 80 acres on damp and 100 acres on up land will keep eight pickers and two teams constantly at work.

PREPARING THE SEED.—Soak for a few hours, until the chit is well swollen. This is known by opening the bean; when sufficiently soaked, the embryo leaf will be very visible inside. Plant as soon as the ground underneath is warm, and danger from heavy frost is past—say during the last of March or to the middle of April—three seeds to the hill; four or five inches deep on upland so that the beans will be sure to be in moisture during the germinating period. Deep planting is not so necessary in damp land; but planting soaked beans shallow, in dry earth, is labor lost.

On these points Mr. F. R. Totman, an experienced castor bean raiser at Marysville, says:

"The ground should be quite warm to have the seed come quickly, otherwise they will be in the ground a month or six weeks. To hasten their coming up, I soak the seed thirty or forty hours, then put them into a sack and bury them in fresh horse manure for as many hours longer, or until they begin to sprout. Then plant; and if the ground is moist on top, cover lightly with the foot; if dry, cover deeper, so the seed may have moisture as well as heat from the sun. Not over three pounds of seed are required to the acre. Two teams—one to strike furrows and one to cover—and one dropper, will plant ten acres a day. The rows, especially on each side of the wagon spaces, should be perfectly straight. When two or three inches high, pull out all but the strongest plant, being careful not to disturb it. One hand should trim eight to ten acres a day.

CULTIVATION.—Now is the time to cultivate, which may be done in the same manner as corn. A turning plow may do in the northern part of the State, or on damp land. In Los Angeles and other southern counties, using the turning plow after the warm weather has set in dries out the uplands; consequently underground stirring implements are required, such as the bull-tongue plow and cultivator with diamond points. The Texas sweeps is a most desirable implement for accomplishing much work, destroying weeds, pulverizing and leaving the ground smooth, and with but little loss of moisture. Three men with hoes can not do as much or as good work as this. A good crop is not ob-

tainable except by early cultivation and keeping down the weeds.

VOLUNTEER CROPS.—Plow early and deep. Keep down the weeds with harrow. Before the beans begin to appear, which will be early in March, strike out the rows and cross-check. Hills should be six feet apart in the row, and rows the same distance—except wagon rows, which should be from eight to ten feet wide, as before represented, and according to the nature of the land and the width of the wagon. If any hills fail, drop in seed with a spade. One hand with a spade will plant five acres a day. After two volunteer seasons, new seed should be planted.

IRRIGATING should be done when the spikes begin to form, and cultivation should follow. Some say that between the first and second pick is the best time, but as this is the picking season, there is but little time to cultivate. I prefer the former rule. Late irrigation retards the ripening of the subsequent picks much—a great item.

PICKERS AND PICKINGS.—Chinamen, Indians and 10 to 15 year old boys are good. Steady and intelligent white labor is the best, and I engage the same for the picking season. If the season be good, it will be over by Oct. 15; but cold, foggy weather, or late irrigation, may prolong the growing and ripening of the spikes to December. A small-sized butcher knife is best adapted for picking. From the last of July to middle of August, according to the season and amount of moisture in the plants the spikes show that they are fit to pick, by the bolls beginning to open and by changing from blue to green. The former is the safer sign, and shows that the bean is ripe and filled. Picking the bean before it is filled out is unprofitable. Two pickers and one team is enough for 25 acres; six pickers, two teams, and a man at the popping-ground, for 50 to 75 acres. The spikes are tossed into the wagon. If the supply of teams be short, baskets will supply the pickers while the teams are discharging. If beans, when ready, be not quickly removed, they will be lost.

The first three picks are about eight days apart; the intervals are more uncertain after this. The chief profit is in the long spikes of the first three picks. It will pay to pick as long as spikes form, which is until frost kills the plants.

Stalks should be cut as soon as possible after the pickings are over, as they are tough when dry. A heavy plantation hoe is a good cutter. One hand should cut at least four acres a day.

THE POPPING GROUND should be at the center of the end of the field. Smooth off a piece of ground and harden it like a brickyard. Its area should be at least one acre for each 50 planted. Spread the spikes over it about two inches deep, leaving a popping margin of about 20 feet; turn daily. The sun pops out the beans. In the long, hot days no turning is necessary. The best time to prepare the popping-ground is in the beginning of winter. Then the only summer work necessary will be to sweep off the dried grass.

CLEANING may be done by the pickers during the intervals of the picks. A No. 3 or 4 fanning-mill, zinc screen with holes for the beans to go through, a hand-barrow and scoop-shovel, are necessary. Put down a platform about 15 feet long, of the width of the mill, and fasten the latter on it; also, put a platform at the side of the mill, to feed from. Put No. 3 screen at the top; next below, the zinc, fastened to and above No. 1; then No. 4. The holes in the zinc sieves should be just large enough to let the beans through easily lengthwise. Four men should clean three tons a day. As soon as the beans are popped, and not before, remove the husks with a hay-rake, follow with a fine iron rake, and finish by passing a broom over the surface of the beans. By observing the above particulars, only one fanning is necessary. Beans should be fanned and sacked as soon as possible. Exposure to the sun causes great loss in weight.

#### General Remarks.

The castor bean of commerce is an annual, but becomes perennial in districts where there are no frosts. It is not attacked by the grasshopper after it has attained the second leaf. A single person will take care of from 10 to 15 acres; three neighbors unitedly can as easily manage 100 acres, and save time and expense by using the same popping-ground and fanning-mill, and nearly double the profits.

Many object to castor beans because they are so difficult to eradicate. They will not trouble if followed with small grain. The bean will retain its vitality in the ground for years, and if the grain which followed the castor bean be followed with potatoes or corn, castor bean plants will appear, but they are easily eradicated if taken in season.

Some say that if the old stath be cut two or three inches above the ground, shoots will spring up, and produce spikes and picks, as from the planted crop. An old producer's experiments show that if after the final pick the stalks be cut on to the popping-ground, they will sell a hundred pounds or more to the acre.

Parties should not begin this industry on a large scale, but moderately, and calculate to remain in it. Experience will bring economy and ease in management. A beginner will be apt to fail at any business unless he will do it the justice to study the details of its culture and management in advance. Castor-bean raising is a business of details, and is no exception to this rule. I know many castor-bean

producers. Failures have been very exceptional, and those that occurred, so far as I could see, were due to defective management.

Farmers who have a taste for details generally like the business. Any beginner who will follow the above instructions must, in my opinion, succeed. They are based on years of experience.

Concerning the market for castor beans, we are assured that there is a ready market for all that are likely to be grown. The price for last year's crop was 2½¢ per lb. for clean, well-matured beans delivered at the mill of the Pacific Oil and Lead Works in S. F. It is not at all likely that the price will go below that figure, and is by no means improbable that it may bring a trifle more. The Pacific Oil and Lead Works do not contract. They will furnish seed at 3½¢ per lb. net cash.

## FLORIST AND GARDENER.

### The Toyon.

Heteromeles Arbutifolia.

EDITORS PRESS:—I was much amused last week by the description given me of the above plant by my pupils, as well as by the names the plant was called. It was known to them as Pigeon Berry, Red Berry, Christmas Berry, Holly, Red Holly, Thorn Apple, and sundry others more or less applicable. The berry-laden branches figure quite conspicuously in Christmas festivities in many parts of our State, so the name "Christmas Berry" would be appropriate enough but for the native name, known generally among old Californians, Toyon. We have too many plants bearing red berries to accept "Red Berry," and we have a plant (*Berberis aquifolium*) too closely resembling some of the hollies, though bearing bluish berries instead of red, to call it a "Holly."

The descriptions given of the plant were far more faulty than the naming, showing a great lack of observation, and reminded me very forcibly of one given me by a teacher some years ago of a wonderful lily with flowers larger than one's head, and which turned out to be an Aralia. Just think of it! A teacher mistaking a rank-smelling, loosely clustered mass of small flowers such as those of the Aralia for a lily! Is it a wonder that President Eliott says that our teachers as a class are only cultivating their pupils' memories?

I wonder if any one has tried to cultivate our Toyon? I know it loves dry places, but it might do well in many garden locations, just as our Zauschneria does. With the exception of having less glossy leaves, it seems to me more desirable in many localities than the Lantana.

Gonzales.

A. L. LIANCE.

### Early Blossoms From Monterey County.

EDITORS PRESS:—Near the coast the Eschscholtzia blossoms always, and many of the beach plants are never without a blossom in the almost changeless temperature of the seaside. It is only when you leave the coast and wander among the hills that local causes show their climatic effects.

On Jan. 15th, while speaking to a child about some shooting stars (*Dodecatheon media*) that were just sending up their stems, she said her sister had gathered whole handfuls of the blossoms a week before, on a much higher ridge near the Cholone peaks; she then stooped and plucked a white forget-me-not (one of the Lithospermums).

Feb. 8th, I saw the first alfalfa blossom in the same vicinity, and on the 13th, the first yellow violets in the Salinas valley near Chualar. On the 8th, I also found a shrubby "Painted Cup" (*Castilleja*) and some black sage in blossom near Soledad.

Along the Salinas river willows were in full blossom on Feb. 14th, and in the hills, near the Pajaro valley, I noticed a garden with oachen-alia, hyacinthe, a native erythronium, several varieties of narcissus, crocus, and, of course, violets in blossom. A single plum tree was also in full blossom.

The first Eschscholtzias met with away from the coast section, had set seed by the 14th, and had dropped their petals.

By the way, how many names is our "Shooting Star" known by? It is known from the Ohio west by the above name, though I note that many Eastern seed dealers are advertising it to the public as the California Giant Cyclamen. Cowslip, rooster, Johnny-jump-up, are other names for the same plant. The plant is closely related to the European cowslip, but the latter two names are often applied to various violets.

UNO.

ENGLAND'S BEEF SUPPLY.—England is more dependent every year on imports of beef from the United States. More than three-fifths of the 500,000 cattle imported annually come from this country, the remainder from Canada.

A COMPANY will start to bore for natural gas near the Union stock-yards, Salt Lake City. They had previously found natural gas at the depth of 600 feet.

AN INCH OF RAIN means a gallon of water spread over a surface of nearly two square feet, or a fall of about 200 tons to an acre of ground.



## PATRONS OF HUSBANDRY.

In our Rural Press Official Grange Edition, issued every week, will be found additional matter from this and other jurisdictions, of interest and importance to Patrons. Any subscriber who wishes can change free to that edition.

### The Master's Desk.

R. W. DAVIS, W. M. S. G. OF CALIFORNIA.

It is estimated that in 1895 the State of California will produce 7,600,000 boxes—20 pounds each—of raisins. While it is unsafe to count chickens before they are hatched, it is not without reason to expect a very large product of raisins in California right away. It is also well for those engaged in raisin culture to "look a little out," and see what is to be done with this vast product.

You are not strong enough to use to the very best advantage every opportunity, but utilize as many of these advantages as possible.

How many friends has Agriculture in the present session of the California Legislature? Let him who knows, answer, and be sure to give us the names of the Senators and Assemblymen who are true friends to Agriculture. We may want to vote for our friends some time, but there are some men now engaged in State work at Sacramento that the farmers will surely allow an "indefinite leave of absence."

Who is the best parliamentarian in your Grange? Don't you know it is a grand accomplishment and useful all through your life, to be well versed in parliamentary law? The Grange affords especial advantages in that line of study. Every son of a farmer ought to be able to preside over a public meeting, a legislative body, or a fraternal organization. The day may be near at hand when we will want a farmer's son to do such service for us at Sacramento and even at Washington, D. C.

Flora is strewing our path with flowers just at this season. Pomona follows quick in her wake and will soon give us the earlier fruits; while Ceres, with more measured step, comes with her golden harvest of ripened grain.

Look well to the "Little District School" about now. The spring term will soon open; then keep an eye and an ear open and catch what is going on at the country school. You must remember the country feeds the cities, both with food and with population. The Grange believes in pure food both for the body and for the mind. Hence, look well to the school by the lane.

Picnic promises are being made already. Not less than five Grangers' picnics are being put under the care of committees up to this date, and no doubt the half are not heard of yet.

"Onions, and how to raise them," would be a subject for profitable discussion at your subordinate Grange meeting. Mr. Greiner, near Buffalo, N. Y., says he has raised 2000 bushels of onions from one acre of land in one year. That is a paying, a highly flavored, business. Count me as one very much interested in the onion business.

People oppose oppression. Hence it is, the people want free coinage of silver; United States Senators elected by the people; the railroads to pay indebtedness; telegraphs to be operated by Uncle Sam; more money per capita; Government land for American citizens; American ships built by American labor, sailing under the stars and stripes, and loaded with American products; lower salaries for public officers, and fewer officers; more schools, libraries, parks, and greater opportunities to enjoy them. The Grange is working to relieve the oppressed and to bring comfort and happiness to all homes, but especially to the homes of the farmers.

The next meeting of the California State Grange will be held at Hayward, Alameda county, beginning on the first Tuesday in October, 1891.

The National Grange will hold the next session at Springfield, Ohio, beginning the third Wednesday in November, 1891.

The latest is a proposed trust in the nursery business of the United States. Will wonders never cease?

Plant a few raspberries, a few currants, a few blackberries, a few strawberries, and have a couple of good ows, two dozen thrifty chickens, one or two fat pigs, a vegetable garden, a flower garden, and a good home, and you will have a big share of the comforts of life. Of course you will want books, horses and huggy, friends, etc., but these will surely come if you first begin in the right way.

The question has been frequently asked, "How many members of the present Legislature are seeking some office other than the one now held?" Ask somebody else; for my part, I give it up.

Saint Valentine's Day brought the most valuable token this year that our farmers have

had in many a day. It was a rich, refreshing rain. The State is many millions richer for it, but the assessor can't put it on his list of available assets. Dame Nature is a friend indeed.

The liberty-loving people of this nation will shed a tear of sadness when they hear of the death of General Wm. T. Sherman. Loyal, large-hearted, sincere, brave, modest, true, he has finally been conquered by the King of Shadows. Honor to his memory. Peace to his ashes.

Now is the time to plant a vine and a fig tree. The day will soon come when you, and your children, and your children's children, and the stranger, may sit beneath them and eat the fruit thereof.

Several very pleasant and profitable bours have been spent during this rainy spell, reading the lectures, reports, addresses, poems and statistics to be found in the annual report of the Wisconsin Farmers' Institutes. We hope, before another winter, that the Farmers' Institute of California may be one of the successful features of the year's work.

The Committee on Woman's Work, in California, has a broad field before it. Won't it tell us how, and when, to plant the standard of the Grange, so that every farmer's family may help the Grange and be helped by it?

Sisters, the flower garden will soon demand your care. Won't the Worby Flora of each Grange tell her sister Patrons what to plant, how to plant, when to plant? Tell us of the Grange what is the prettiest white rose, what the handsomest red rose. Try to post us about violets, lilies, daisies, poppies, geraniums, marigolds, fuchsias, mignonette, lilacs, and the thousand and one fragrant and beautiful flowers which are for our comfort, instruction and joy. Tell us all about the flowers, Floras!

Unity of action among the farmers means abundant success. Success is what the tillers of the soil now most need. The Grange offers the best means for intelligent unity of action. Conservative, thoughtful, progressive people have stood with the Grange for 25 years. They see no reason to desert it now. They invite all farmers to join in the fight against trusts.

### Why the Conger Lard Bill Should Pass.

We have received from Alex. J. Wedderburn, Chairman Legislative Committee Virginia State Grange, a circular with the above caption, issued by that committee, which is too lengthy for insertion in full, but from which we excerpt the following reasons adduced for the prompt passage of the bill. The circular is dated Washington, D. C., Feb. 5, 1891.

1. It is a just and equitable measure.
2. Its provisions are the only ones that can secure the end in view, of preventing the adulteration and misbranding of one of the most important and largest agricultural products.
3. It is not class or sectional legislation.
4. It benefits the consumer.
5. It benefits the producer of hogs and cotton-seed oil.
6. It prevents fraud.
7. It is perfectly constitutional.
8. The Conger bill is not directed against the cotton seed grower and it will not injure him at all.

9. Adulteration and misbranding strikes 80 cents off the price of every hog, which means over \$15,000,000 loss to the people of the West.

#### The Grange Claims:

1. That fraud should be stopped and this robbery cease.
2. That the expense of supervising the vice should be borne by the men who make these immense profits, and whose actions make supervision necessary, and not by the people.
3. That supervision can only be obtained through the revenue system, because when a pail, bucket, barrel or tierce of lard compound goes from one State to another and the head is knocked out, then the power of the Government ceases, unless this law is passed, as the Government cannot police the States.
4. The Interstate commerce provision will not cover this fraud.
5. State laws cannot prevent the importation of original packages.
6. The cry that the law is unconstitutional is disproved, as its provisions are mainly the same as the Oleomargarine law.
7. The idea that the use of the taxing power to regulate this kind of fraud is unconstitutional and wrong, is disproved by Mr. Justice Story, one of the ablest expounders of constitutional law.

Finally, petitions and resolutions have been presented to Congress from farmers, butchers and consumers aggregating between 6,000,000 and 8,000,000.

TEMESCAL GRANGE.—The following Committee on Conference was appointed at the last meeting with a resolution that Temescal Grange co-operate as a committee of the whole, in supporting Eden Grange, as may be desired, in entertaining the next session of the State Grange at Hayward: A. T. Dewey, W. Renwick, E. M. Gibson, and Sisters Nellie G. Bahcock and S. A. Whidden. Sister Dewey read an article on house furnishing, which, with others, will probably be published later.

## National Grange on Legislation.

Petition of the Legislative Committee of National Grange—Oleomargarine.

OFFICE OF LEGISLATIVE COMMITTEE OF NATIONAL GRANGE, P. OF H.  
WASHINGTON, D. C., Jan. 12, 1891.  
To the Honorable Senators and Representatives in the Congress of the United States.

GENTLEMEN: We respectfully represent that the people of several of the States have, at great labor, secured the passage of laws to prohibit the manufacture and sale of oleomargarine made in the semblance of genuine butter, or laws to regulate and control such manufacture and sale, which legislation is rendered partially inoperative because of what is known as the original-package decision; and now, in order to enable the people of the several States to secure protection from the manufacture and sale of such imitation or counterfeit product, we respectfully urge the prompt passage of Senate Bill 3911, subjecting oleomargarine to the provisions of the laws of the several States.

J. H. BRIGHAM,  
LEONARD RHONE,  
JOHN TRIMBLE,  
Legislative Committee.

### Adulteration of Food Protest.

WASHINGTON, D. C., Jan. 12, 1891.

To the Senators and Representatives in the Congress of the United States of America:

GENTLEMEN: The undersigned, Legislative Committee of the National Grange of the Patrons of Husbandry, would respectfully urge upon your Honorable Bodies that prompt action be taken upon the measures now before Congress regarding the adulteration of lard and food products generally.

We trust you will pass the Conger Lard bill, which is upon the Senate calendar and has already passed the House of Representatives.

Below we hand you the action of the National Grange of the Patrons of Husbandry on this important subject.

Extract from report of the Legislative Committee adopted by the National Grange in its 24th annual session at Atlanta, Ga., November, 1890:

NOT POLITICAL BUT PRACTICAL LEGISLATION WANTED.

We do not, as a committee, discuss partisan politics. The present necessities of the farmers of our country are of far greater importance than the political success of any man or party. The farmers ask for practical legislation in the interest of a depressed agriculture and ask it now.

#### ADULTERATION OF FOOD.

We want the pending bills to prohibit the adulteration of food and other commodities, from which every honest industry suffers, promptly enacted into laws.

All compounds of articles to be used as food should be carefully regulated by law, and the expense attending such regulation charged to those who are making fortunes out of a business the profits of which are not shared by the farmer producer.

The claim that this is a tax upon one commodity for the benefit of another is not true, because the tax is imposed upon the compound and not upon the pure articles which enter into it. The tax must be borne by each ingredient in proportion to the amount entering into the compound.

The members of our organization, representing every State and every agricultural interest, have repeatedly indorsed the above, and those who oppose such legislation do not fairly represent the honest farmers who have carefully considered the matter before giving it their hearty indorsement. We therefore urge the passage of the Conger bill for the regulation of the manufacture and sale of lard compound, as amended and favorably reported by the Committee on Agriculture, and the early report and passage of the Pure Food bills now before the committees.

#### PURE FOOD AND DEALING IN FUTURES.

The committee earnestly urged the passage of the Conger Lard bill, Pure Food bill, and the Butterworth bill to prevent gambling in grain. The Conger bill was fiercely assailed by the manufacturers of lard compounds, and earnestly defended by your committee. It was finally reported to the House and passed by a decisive majority. The bill is now pending in the Senate, and all our influence should be exerted to secure its passage through that body. We cannot afford to be defeated upon a measure which has been so unanimously indorsed by our Order. The Pure Food bill is still pending, also the Butterworth bill. The first is not seriously opposed by "food-mixers," which should lead us to scan its provisions closely, or we may find when too late that it will not be effective.

Resolutions adopted by the National Grange at the twenty-fourth annual session, held at Atlanta, Ga., November, 1890.

On motion of Milton Trusler, Master of the State Grange of Indiana, the following was adopted:

WHEREAS, The adulteration of food, drugs and liquors exists to such an alarming extent as to invade every article of diet, drug and drink; and

WHEREAS, These adulterations are often harmful to health and always injurious, and are frauds when sold under a deceptive title; and

WHEREAS, One of the products of the hog, one of the largest agricultural interests on which depend in a great measure the markets for our Western

corn, is adulterated to such an alarming extent as to be excluded from several of the European markets, thereby greatly injuring one of our principal agricultural industries; and

Whereas, This body did, at former sessions, indorse certain bills before Congress looking to the remedy of this evil; therefore

Resolved, That the National Grange, in annual session here assembled, do reaffirm its former resolutions in regard to the adulteration of food, and that we urge upon Congress the importance of promptly enacting such laws as will effectually prevent such adulterations.

All of which is respectfully submitted.

J. H. BRIGHAM,  
LEONARD RHONE,  
JOHN TRIMBLE,  
Legislative Committee.

### From Sacramento Grange.

EDITORS PRESS:—Believing as I do that you are always glad to hear from Sacramento county, and especially from a Granger, I drop you a few lines according to promise.

We have had a glorious rain and the farmers of this section are feeling happy. All kinds of crops are looking well. The acreage is much greater this year than last, and I think we can safely say that the farmer will be able to feed them all. The prospects for the fruit crop were never better, and we predict for this county a rich and bountiful harvest, as well as good, fair prices.

The Grange work in this county is progressing rapidly. The majority of the farmers and their families are safely within our borders, and we will strive to get the others in before the year closes. We will battle in the good and noble work until we have gained the victory. We can see plainly that the Grange organization is growing daily in favor and popularity, and the good work will still go on until we have encircled within our Order every farmer and his wife and family.

#### Sacramento Grange

Is in a healthy condition. We have a good average attendance and much interest is taken in the work. The Grange is wide awake and in good shape financially. We have savings accumulated to a considerable amount, and are in a position to help a worthy brother when in want or need.

Bro. Hayes, Master of the Oregon State Grange, paid us a visit on the 14th inst., and on invitation, delivered a fine address, which was not only instructive but was an able and masterly effort. After his address, several of our eloquent brothers were called on to give expression in regard to some of the thoughts and ideas suggested by Bro. Hayes. Bro. Daniel Flint, who is always ready, gave us one of his good, humorous and encouraging speeches, which he so well knows how to do. Other brothers took part and we had an enthusiastic meeting, although the weather was stormy and prevented a large turnout.

At our next meeting, 28th inst., we have a question for discussion on "the proper time and manner of preparing the ground for sowing wheat, the best variety or kind to sow, and the most economical way of harvesting." Bro. Hull and Homes will take the lead in the discussion, and an interesting time is expected. [Let the RURAL have a full report, please.—EDS.]

Our committees are getting down to work in earnest, and much good and thorough work is looked for this year.

#### The Farmers' Alliance

Is organizing quite rapidly in this county. I think that about ten Alliances have already been formed, and I am informed that in a few days a County Alliance will be organized. The farmers are waking up, are beginning to think for themselves, and are going to the front. They have been in the rear ranks long enough, and I predict that in 1892 a great change will be wrought in political circles which will redound to the interest of the farmer, mechanic and laboring class.

Bro. Charles Mack, our worthy Secretary, has been quite sick for the past week. Look out for him when he gets well and able to swing a quill. He is an able writer and will no doubt contribute to your valuable RURAL PRESS in good style. Yours fraternally,  
E. GREEK, M. Sec. Grange.

#### Fruit Ridge, Sacto Co.

[Thanks for your very acceptable letter, W. M. Bro. Mack has our sincere sympathy, with hopes for his speedy recovery.—EDS.]

IMPORTANT NOTICE.—Patrons should not forget the meeting to be held at Davisville on Feb. 28th, postponed from the 20th. Bro. Flint and other good Patrons will speak.

### Take Your Fraternal Edition.

In my intercourse with the members of the P. A. & I. U. of California I have found that but few of them are getting the Grange and Alliance edition of the PACIFIC RURAL PRESS. Many of the members seem to think that these editions are extra and that there is an extra charge for them. Such, however, is not the case (see note at the head of our columns). These editions are the official organs of the two organizations, and contain interesting and useful information for the industrial classes, and are free to all regular subscribers for the RURAL PRESS. If you want them and are not getting them, please write to the editors of the PRESS and they will be sent with the regular issue without cost to you.

J. L. GILBERT,  
State Lecturer.





VIEW IN A LOS ANGELES GARDEN AND ORANGE GROVE.—See page 183.

## FARMERS' ALLIANCE.

SUBSCRIBERS wishing fuller information of the Alliance can have their names changed to the Grange Edition of the RURAL PRESS free, much to their advantage, this department being continued in the same.

### Elisnore Alliance.

EDITORS PRESS:—We had a good Alliance lecture here last night from Mrs. Anna F. Smith, who was on her way to San Bernardino county to organize in that county. The lecture was not as well attended as it would have been had there not been a revival meeting and a citrus fair, which, by the way, was very good. The audience seemed much interested in the subject. After the audience was dismissed the new work was exemplified to the local Alliance members.

Sister Anna F. Smith deserves much credit for the very efficient manner in which she has conducted and pushed the work of organizing and lecturing in this part of the country. She came into this county Dec. 13th last and has been ill for two weeks. She attended the Orange County Convention, thereby losing much valuable time, yet she has organized 13 Alliances and the County Alliance. All of those formed are in the northern and central part of the county. She will now go to work in the southern part, where there are some ready to be initiated.

L. Y.

San Diego Co.

THE BIGGEST TRUST, the richest syndicate, the most gigantic combination and the most dangerous conspiracy in this country, is the National Bankers' Association. It is a cold-blooded money trust that bleeds every laborer and tolls all production, reaping where it has not sown and gathering where it has not strewn. It is an illegal trust founded on a violation of the United States Constitution, but too rich to be controlled by law. It is the outgrowth of foul treason at Washington during the war.—*Farmers' Advocate, Hamilton, Mo.*

CHEERING NEWS.—Bro. Silas M. Puyear writes from Escondido, San Diego Co., Feb. 16: "Several sub-Alliances are being organized weekly in this county." An account of the

organization of the County Alliance will be found under the head of "The Work in San Diego County," in Grange edition.

### Enterprise Alliance.

The following resolutions have been passed by Enterprise Alliance:

*Resolved*, That Enterprise Alliance No. 1, of Sacramento county, tenders to State Organizer J. W. Hines our sincere thanks for the faithful and efficient work done in commencing the work of organization in our county; and as the exigencies of the work seem to demand his presence in other parts of the field, we hereby cheerfully commend him to the confidence and fellowship of all who are truly in favor of genuine reform throughout the State.

*Resolved*, That in view of the complicated state of the secret work of the Order in this county, and other disturbing causes, we hereby extend to Bro. J. S. Barbee, National Organizer, an invitation to visit us and organize our county, feeling that his age and experience in the work of the Alliance would materially aid us in the present condition of the work in Sacramento county.

If ever there was a set of people in any State or any country that should rise in their majesty and crush a lot of political vampires that have so long sucked the lifeblood of honest toil, it is the farmers of California. The average California politician has no respect for the farmer. On the contrary, he entertains a supercilious contempt for what he calls the "old hayseed." The Legislature of this State, always dominated by political vagabonds from San Francisco and Sacramento, has persistently spat upon the farmers and taxpayers generally, and those same vagabonds grow fat on the fruits of their thieving jobbery. The rejection of the Mutual Insurance bill is simply an illustration of what we have said. Let the farmers take a hand in the Government.—*Oroville Mercury, Feb. 20th.*

IN YOLO COUNTY.—Winters Alliance has been formed by County Organizer Roth, with the following officers: Pres., S. B. Danton; V. P., G. W. Hinolay; Sec., V. Morris; T. J. A. Johnson; D. K., F. E. Wilson; Ass't D. K., A. Baxter; C. G. W. Thissell Jr.; S., J. H. Wilgus. The Secretary issues in the *Express* an earnest appeal to all farmers, mechanics and laborers, with their wives and daughters, to join the Order.

## The Transportation Question.

Views of a National Alliance Officer.

As pertinent to the much-discussed question of railroad freights and fares, we are pleased to receive the following communication from Bro. D. H. Talbot of Sioux City, Iowa, a member of the National Alliance Board of Education. Mr. Talbot writes as follows:

EDITORS PRESS:—For the information of the readers of your paper who are interested in the discussion between Kate L. Squire and Mr. J. V. Webster, permit me to copy from an address delivered by me outlining general work for our local Alliances at our recent meeting of the National Farmers' Alliance at Omaha, Neb.:

"Railroads should have the water taken from their bonds and stocks by simply appraising the roads at given intervals at the actual cost to build and operate at that time, and freight rates should be based upon the value of the thus kiln-dried material, rather than as at present in its wet goods condition. If this were to be done, I think passenger and freight rates would be lowered at once about 75 per cent. Of course, the money kings will say this is robbery, but they do not say so when they put a price on our cattle and hogs."

Our convention adopted the suggestion by resolution and made the time of appraisal annually. Why not apply the same rule to telegraph and telephone systems?

The address from which this is taken will be forwarded to any one sending me his post-office address, and as one of our National Alliance education board, will forward articles upon other lines seeking relief for the farmer, if asked for.

D. H. TALBOT.

THE FARMERS' ALLIANCE meets every two weeks at Washington school-house, Tulare county. They start out under flattering circumstances and have selected the best local talent for their officers.

GOOD WORK IN FRESNO COUNTY.—J. G. Gilstrap has organized an Alliance at Pulvadero, and one has also been started at Coalinga, with a good prospect for more. So writes Bro. J. W. Weh of Hanford.

## List of U. S. Patents for Pacific Coast Inventors.

Reported by Dewey & Co., Pioneer Patent Solicitors for Pacific Coast.

FOR WEEK ENDING FEB. 17, 1891.

- 446,702.—MAILING MACHINE—G. B. Baer, Cloverdale, Cal.
- 446,421.—SKATE—S. S. Black, Pasadena, Cal.
- 446,660.—CARBON FOR ELECTRIC LAMPS—W. H. Burns, Los Angeles, Cal.
- 446,630.—WINDMILL—W. M. Craig, Santa Ynez, Cal.
- 446,585.—VENEER-CUTTING MACHINE—E. Densmore, Coronado, Cal.
- 446,439.—CARD EXHIBITING DEVICE—J. W. Fawker, Sr. and Jr., Burbank, Cal.
- 446,445.—FLOOR-WASHING MACHINE—Lizzie Graham, Portland, Or.
- 446,559.—VEHICLE WHEEL—R. E. Jeffrey, Grass Valley, Cal.
- 446,755.—FISH-NET—L. A. Johnson, S. F.
- 446,756.—INDEX—W. A. Judge, Santa Barbara, Cal.
- 446,524.—PANORAMIC DEVICE—E. W. Keeler, S. F.
- 446,600.—WIRING ATTACHMENT FOR BALING PRESSES—J. H. Kruse, Portland, Or.
- 446,530.—APPARATUS FOR DELIVERING CLAY TO PRESSES—E. T. Mapel, Alameda, Cal.
- 446,603.—SOFA BED—A. G. Phillips, S. F.
- 446,745.—HOSE REEL—W. T. Y. Schenck, S. F.
- 446,763.—RAILWAY RAIL JOINT—J. B. Walker, Corvallis, Or.
- 446,495.—MAILING MACHINE—S. B. Whiteside, S. F.
- 446,654.—COMPOUND FOR PAVING, ETC.—H. F. Williams, S. F.

The following brief list by telegraph, for Feb. 24, will appear more complete on receipt of mail advices: California.—Josiah Bibcock, San Jose, positive shuttle motion for looms; Otto A. Drewer, San Francisco, set trigger; Edgar W. Burnham, San Diego, music-leaf turner; I. L. Murell, San Francisco, fire-proof paint; John C. Miller, San Francisco, annunciator and indicator system; John F. Millerich, San Francisco, gate; James W. Perkins, San Jose, machine for making compound paper and jute twine; John F. Sweeney, San Francisco, perch for birdcage; H. Sweet, Los Angeles, metallic railway tie and chair, and metallic roadbed draw and safety tie; Edgar Thompson, San Francisco, assignor to Pacific Engine Company of California, engine governor; George C. Watriss and C. J. Knighin, San Francisco, cable railway; John Weichhart, San Francisco, machine for forming sheet metal lathing.





## One a Day.

[Compiled for the RURAL PRESS by A. L.]

- "He who fills his heart with the truths of the poets may work them out in heroic deeds."
- March 1.—"There are many people who think that Sunday is a sponge to wipe out all the sins of the week."  
—Becher.
- March 2.—"Old wood to burn!  
Old friends to trust! Old authors to read!"  
—Melchior.
- March 3.—"Bad memory has its root in bad attention."  
—Rambler.
- March 4.—"Be not simply good. Be good for something."  
—Thoreau.
- March 5.—"In this world man must be either anvil or hammer."  
—Longfellow.
- March 6.—"Know then thyself, presume not God to scan;  
The proper study for mankind is man."  
—Pope.
- March 7.—"Habit is a cable; we weave a thread of it each day, and it becomes so strong we cannot break it."  
—Mann.
- March 8.—"Prove all things; hold fast that which is good."  
—Bible.
- March 9.—"Life is a short day; but it is a working day. Activity may lead to evil, but inactivity cannot be led to good."  
—Hannah More.
- March 10.—"Run if you like, but try to keep your breath;  
Work like a man, but don't be worked to death."  
—O. W. Holmes.
- March 11.—"If there is a virtue in the world at which we should always aim, it is cheerfulness."  
—Bulwer Lytton.
- March 12.—"It is better to wear out than to rust out."  
—Bishop Cumberland.
- March 13.—"Slumber not in the tents of your fathers!  
The world is advancing! Advance with it."  
—Mazzini.
- March 14.—"Good deeds ring through heaven like a bell."  
—Richter.
- March 15.—"Ignorance is the curse of God,  
Knowledge the wing wherewith we fly to Heaven."  
—Shakespeare.
- March 16.—"If a man empties his purse into his head, no man can take it from him. An investment in knowledge always pays the best interest."  
—Franklin.
- March 17.—"Next to the virtue, the fun in this world is what we can least spare."  
—Strickland.
- March 18.—"Kind words are the music of the world."  
—Faber.
- March 19.—"Pin thy faith to no man's sleeve.  
Hast thou not two eyes of thine own?"  
—Carlyle.
- March 20.—"Defeat may be victory in disguise,  
The lowest ebb is the turn of the tide."  
—Longfellow.
- March 21.—"Man in society is like a flower  
Blown in his native bed; 'tis there alone  
His faculties, expanded in full bloom,  
Shine out; there only reach their proper use."  
—Couper.
- March 22.—"The Sabbath is the golden clasp which binds together the volume of the week."  
—Longfellow.
- March 23.—"Sloth makes all things difficult,  
but industry is easy. He that riseth late must trot all day and scarcely overtake his business at night; while laziness travels so slowly that poverty soon overtakes him."  
—Franklin.
- March 24.—"Wine invents nothing, it only tattles."  
—Schiller.
- March 25.—"There's never a leaf or blade too mean  
To be some happy creature's palace."  
—Lowell.
- March 26.—"What a desolate place would be a world without a flower. It would be a face without a smile, a feast without a welcome. Are not flowers the stars of the earth, and our stars the flowers of heaven?"  
—Mrs. Balfour.
- March 27.—"Care will kill a cat."  
—Wither.
- March 28.—"Our greatest glory consists not in never failing, but in rising every time we fall."  
—Goldsmith.
- March 29.—"Great God! we thank Thee for this home  
This bounteous birth-land of the free;  
Where wanderers from afar may come  
And breathe the air of liberty."  
—W. J. Partridge.
- March 30.—"Your voiceless lips, O flowers, are  
living preachers,  
Each cup a pulpit and each leaf a book,  
Supplying to my fancy numerous teachers  
From loveliest nook."  
—Horace Smith.
- March 31.—"Fair seem these wintry days, and  
soon  
Shall blow the warm west wind of spring,  
To set the unbound rills in tune,  
And hither urge the bluebird's wing."  
—Whittier.

## The Green Burglar.

(Founded on Fact.)

[Written for the RURAL PRESS by L. F. BOURNE.]

"There! there! child—if you're goin' to let your nerves run away with ye, and shiver and quake at bein' left one night, I'll just off bonnet and stay home. Nothin' to fear—come, cheer up! Your pa won't be back 'till mornin' I

know (and I shall be home on the early train to breakfast), but Mr. Max—he'll be here for the night—and old Simon will be in bed by nine, and take care of the whole household, sleepin' with one eye open, as he allers does. Next to the Lord, I'd trust myself in old Simon's care 'fore any oreetur on the arth, he's so faithful and pious."

"I know there is no occasion for my timidity, Aunt Molly, but since my sickness I can't seem to get my nerves straightened; and that burglarly down to the Point, the other night, has just set me all in a quiver. I shall soon get quieted. Here is the carriage at the gate. Don't keep it waiting."

"Well! if 'twasn't a case of sickness, I wouldn't leave ye, Belle, but sister Prue, she's ailin' and somethin' tells me she halnt long for this world."

A long sigh and—  
"Now if you hear a kind of a tap, tap, tap on the wall arter it gets dark, like spirit rappings, mind ye, 'taint spirits; it's that confounded rat we can't catch, and if you hear a kind of slow treadin' over the coal heap in the cellar, and the coal rollin' down sorter moderate, as though somebody was a walkin' over it, 'taint a bugler, you know; 'tis Pete Smith's old white cat that comes in the winder where the pane of glass is out; and if you hear what you call somebody pickin' the keepin'-room blind open, it haint nothin' in the world but the wind, 'cause in a 'souwester' it allers does that; and if you hear a kind of groanin' noise in your pa's bedroom—"

"There! Aunt Molly, stop! stop! or I go! I mean, for the carriage is at the door, I tell you."

This started her comforter for the hall, but the green silk bonnet was seen protruding itself into the door of the parlor as she opened the outer one, and the wearer piping out in a high tone of voice: "The groanin' is only the clothes-line rubbin' s'gin' the house."

Belle was alone at last.

Faithful Simon, an old negro who had been in the family as a servant ever since Belle remembered anything, showed now a pretty thorough whitening of his wool, but he was still vigorous and strong.

Belle's mother had died when she was but a wee child, and excepting the first few years after her mother left them, "Aunt Molly," the devoted housekeeper (and who had always answered to that name) had been like a grandmother to the child.

Mr. Fay, the father of Belle, was an indulgent one, so nothing seemed to come between Belle Fay and the utmost freedom of enjoyment in the easy pleasure life she led.

In the freshness of her youth, havin' just entered her eighteenth year, she was the possessor of a nature capable of enjoying life to its utmost, keeping always the right in view, as far as she understood herself and those about her.

At the present time she was recovering from the effects of a fever and was in that stage of convalescence when the system hardly had regained its normal condition because of a little nervous affection, which, whenever a slight cause presented, resulted in undue excitement; hence her timidity in anticipating a lone evening, reaching perhaps into late hours.

But the door opens and in bounds "Max"—her father's clerk, sprightly, jolly Max.

Belle hailed him with a hearty welcome.

"I am so glad you've come, Max. Aunt Molly has gone to her sister and left me all alone in this dismal house—and what time will you get through at the office to-night, for Aunt Molly says you are to sleep in papa's room—because I'm a little nervous you know. She thinks Simon is equal to a whole regiment in time of danger, but I know one could not rouse him from one of his stolid sleeps without pulling a good share of the wool out of his head, and while this performance was being enacted the burglars could blow up the safe, you know."

"Hal! hal! We call old Simon faithful, I know, but I think I could pick any of your locks with far better results than I could his wool—so far as rousing him is concerned."

"Simon is faithful, but his combativeness is on the wane as his hair whitens. We shall probably have no occasion to call it out, however."

"I cannot get in until ten, Belle. I have extra writing in the office this evening." Belle's countenance fell perceptibly and a little shiver shook her frame.

"Say, Max, have you heard anything more about that dreadful burglary at the Point?"

"Burglary! pshaw! What right have you filling your little brain with such horrors?" at the same time rubbing briskly the curly head. "Eat your supper and invite the ghosts and all their cousins, but let the newspaper burglars alone." glancing at an open sheet upon the sofa. "You don't believe everything you read, do you?"

"But this is so near us, Max, only twenty miles. How long would it take a burglar—a fast walker, you know—to come from the Point over here?"

"Well," dropping his roguish eyes and putting on a serio-comic air of calculation, "that would depend largely upon the kind of boots he wore. Let me see—the giant of our childhood story wore 'seven-league boots' and stepped in proportion. A league is three miles and seven leagues is twenty-one miles; said giant, then, took in twenty-one miles at a step. If this burglar, whom you seem to have ordered, steps accordingly, and starts from the Point

about dusk, he will be here about eight this evening. Possibly not before five minutes past. You had better not retire until he has made his call."

"O Max, you horrid fellow! Now I know I am going to be frightened. Aunt Molly got me all stirred up before she went away."

"Brace up, Belle, for I must be off; but what can I do for you? How is that dominant stomach of yours to-day, and what is the bill of fare it calls for?"

"Oh, my favorite dish. Ever since I commenced the eating process I have so craved a lobster. This enormous appetite that follows a fever is enslaving."

"No sooner ordered than procured," was the reply. "Here is old Pat's fish-cart standing at the market right from the shore. I'll wager lobsters are the staple commodity just at this pressing hour," and with a brisk run across the street he drew from the heap of treasures that Neptune had lavished on "Pat" a great green monster working his hinges in an emphatic manner and "looking a bit homesick for his native element." Max inquired, as he came in holding the green dangle close to Belle's ear, "What kind of earrings would they make, Belle—these huge claws? they would clinch well."

A scream of horror greeted him.

"Why, you dreadful Max! That isn't the kind papa buys. We always eat the red ones. This is green—a dreadful green, too; a real marsh-mud color. I'm afraid it won't agree with my stomach."

"Indeed it will. It is the finest variety of lobster. Didn't you know there were two kinds—the red and the green?" with a suppressed twinkle in his eye. "The green are for invalids or convalescents, I should say, who have a special affection of the spleen—melancholia and the like; while the red are for more general eating. I understand they promote flushing when eaten with a relish" (at the same time pinching the cheeks that were already pink with excitement and merriment), "and the thoughts of it are already beginning to bring the hue of health to your cheeks, so I think we will try a red one," walking out and placing it upon the kitchen table.

"Now, Max, do tell me truly. What am I to do with this monster?"

"Boil it, boil it! Are you under the necessity of being told that a living green lobster is soon converted into a red one by cooking?"

Belle was obliged to own her ignorance on the subject.

"Now, Belle, I am sorry to be unable to start this old fellow on the appetizing road for your breakfast, but I cannot even stop to get your kettle on, and as Aunt Molly is absent, we cannot even utilize the song quotation, 'Molly put the kettle on.' I see no other way but for you to do it yourself. It will be delicious for your breakfast. It is a telegram I had forgotten to send, the cause of my haste. I must attend to it at once. Excuse!" and with an "au revoir" Max was gone.

Belle started at once for the kitchen, where upon the cooking table laid the subject of her experiment. Placing the kettle under the faucet, she partly filled it with cold water, and then grasping the tongs she seized the monster by one of his claws and dropping him in, she covered the kettle and placed it over the glowing fire. Closing the kitchen door, she stepped into the dining-room, took a hasty supper and back to the parlor for the evening.

As a shortening process for the long evening, she concluded to take a nap, so fastening the door securely she soliloquized, "Now I will try to rest," and curling herself on the sofa, composed herself to sleep.

Max ran down the street on his errand and then returned to his office, which was directly opposite the residence of Mr. Fay. It was getting dusky, and yet hardly dark enough for lighting. Somehow the mood of reverie came over him, and almost unconsciously his head dropped upon his hand and he fell into a twilight soliloquy.

"Yes! I can say it, and say it reverently too, this fever of Belle's has been a real 'God-send' to me. It has kept her at home two months, and the latter part of the time her convalescence has been to me a choice time, as I know better than any one else. I wonder that Mr. Fay has taken that odd fancy for our carrying our office work, much of it, over to the house to do. I know that he says it is company for Belle, that she is lonely in her seclusion, etc., and that he likes to be where he can speak with her often, and he near her. I'll congratulate myself, at least, that he's no objection to the company she keeps in her own home, and I shan't be obliged to ask him to grant me the pleasure of such visits, so long as access is made so easy and agreeable."

"Heretofore she has been the gayest bird of the season, but this winter we have had her caged."

"Humph! Capt. Burr, Tom Long and such shallow-brained fellows! 'Tis a marvel to me that so sensible a girl as Belle can talk with them five minutes, but girls will flirt, and they've got money, these fellows, I know. It is no use for me, a poor clerk, to compete with them, and doubtless long before I shall stand where I can support a wife, Belle will have made a society match and be 'abroad,' and yet she has a happier look in those brown eyes, and a sweeter manner seems to shape her life when at home with us, than when she plays the gayest in the festal hall. Pshaw! yes, pshaw! Heaven grant it prove such; I believe Belle finds it only play. I hope she does not try to find anything

true or earnest in the whole thing. That sort of gay life is a farce. 'Society'—'society' so called—such as I see is a rotten nut and as soon as we really get the inner taste of it, it stings, and even the worms eat at its life, however fair the outside appears."

"Belle shall not be sacrificed—I hope; but if I only knew!"

We left Belle just preparing for an evening doze. The light being adjusted gave the room a more cheery aspect and she dismissed her nervousness and fell off into quite an easy slumber, but for a little while; all at once she threw her arms over her head and suddenly awoke. But a short time had elapsed, but she felt that she was waking from a long night's sleep. Something had startled her. Almost paralyzed with fright, she sprang to her feet but could not move further for some moments. Such a rattle and clattering sound as came from the kitchen was indeed frightful. Somebody was there. "A burglar, and oh! what a bold one," thought Belle; for now in the silence of the house came the dull thud, thud, as of some one walking across the floor. If he had thrown down the cooking tins in making his way in why didn't he leave in his own startling noise? but no! the thud, thud, kept on, and the burglar was evidently making the entire circuit of the back part of the house, pantry and all. At this very instant the clock struck eight. Thoughts of the "even league boots" and the hour of the burglar's arrival all appeared to her in a realistic view, and the joke was lost sight of in the fright. What a moment! what should she do? Welcome sound! Simon had arrived! she heard his step as he went upstairs, and his wheezy cough she could not mistake.

It was but the work of an instant to reach the top of the front stairs and glide along the upper hall to his room in the rear of the house. Simon had just entered and was somewhat amazed at the white face of his young mistress. "O Simon!" she exclaimed; "come down quickly! There is a burglar in the kitchen!"

"Bress my soul! Missis, 'tis dem bng-lers at de Pint."

"Yes, Simon, come down quick!"

"Lor' bress me! Lor' bress me! Missus, you wouldn't send ole Simon in his 'vanced years a-pickin' a fuss wud buglers. I thought I've prepared for suddling dislution, but I've feared de time has come when I've weighed in de Lord's balances and found 'nuf right too light. Oh! Lor' bress! Lor' bress!" (striking the palm of his great ebony hand on his breast at each ejaculation).

"Stop your preaching, Simon, and come along," and Belle went tremblingly toward the door. At this point she turned with the expectation of Simon's following her; but judge of her surprise at the exhibition of his devotion.

He was on all fours, making his exit from the scene of confusion, crawling under the bed, and pointed for the most remote corner; his woolly head dropped low, his eyes rolling frantically, the whites glistening strongly in contrast to the dark face, and looking back into the room through the crook of his left elbow.

Under other circumstances Belle would have been laughingly convulsed at the tableau and the situation; but seeing it was useless to get help from this source, she ran down the stairs again, utterly exhausted, and almost fainting as she reached the last landing.

She still heard the steady tread round the kitchen, and springing to the front window, she threw up the sash and gave one terrifying scream that penetrated into the room where Max was deep in figures.

He started, leaped down the stairway, and crossed the road with one bound, it seemed. Belle threw back the outer door and stood before him, in appearance an alabaster statue.

"Bur—bur—burglars," was the only word that escaped her lips, and, with her finger pointing toward the kitchen door, she fell almost fainting into his arms.

He panted and listened, then stepped to the door; but Belle, roused from her lethargy, sprang forward, removed the key from the door and dropped it into her pocket.

"Give me the key, Belle, and I'll investigate," but she shrank back. "Give me the key, Belle," and at the same time he slipped his hand into her pocket, took the key and advanced toward the door. She threw her arms about his neck, and trying to draw him back, fairly shrieked: "Don't Max, don't! Your precious life! Your precious life! Get papa's revolver, in his room. Here, quick! O Max! he's armed—I know he's armed."

"I don't know about his being armed, but I'm quite sure he's armed," said Max coolly as he turned the key in the door, and throwing it wide open, drew Belle within the lighted room, all trembling with fright, and pointed to the innocent green burglar who was traveling around the room with as much unconcern as though he was traveling his native sands or reposing on a couch of seaweed.

Max stepped coolly to the kettle, and dipping the tips of his fingers in the water, asked with a comical expression:

"Did you introduce him to cold water or hot?"

"Why, hot water would have been cruel, wouldn't it?" replied Belle with a foolish look.

"You are very like the man who carried his old family horse (when too old for service) into the woods, and tied him to a tree to 'die a natural death' instead of knocking him on the head, starvation being considered by the deluded humanitarian as preferable. I am glad this briny fellow was not so green but that he knew enough to bounce the pot-lid to the floor



and climb out when he felt the water heating." Again trying the water, Max found it was at the boiling-point and exclaimed, "All ready! One, two, three, and here he goes," and without even the help of a policeman arrested the burglar in his last promenade around the room, and splash he went into the pot.

Then replacing the pot-lid, he drew Belle gently away from so "cruel" a sight and repaired with her to the parlor.

As he went, he was thinking of that spasmodic hug with which she drew him back from danger, or the trial she made at it.

Then he grew more tender as those frantic words, "Your precious life!" "your precious life!" re-echoed in his heart.

Belle had long ere this laughed herself into hysterics and calmed off again.

"Answer me one question to-night, Belle," said Max. "To whom was my life so precious? Have I the same 'precious life' now that I possessed in that frantic moment?"

Belle blushed and hung her head, but the answer was evident.

Morning found them all gathered at the breakfast-table. Papa and Aunt Molly came on the early train and the adventure was duly rehearsed for their benefit. This was the most jovial breakfast-table, we will admit, that ever circled, the "Green Burglar" being the center dish of attraction.

The farce of the preceding night was freely discussed with some extravagant embellishments from Max, it must be confessed; but Belle was relieved to find that the "precious life" was left out of the recital when rehearsed to her father.

"Well!" said Aunt Molly, "I allers said that gals should larn cookery, and it would saved a big scare to this house last night if Belle had known whether a lobster ought to be biled in hot or cold water. I wish, Belle, you could go to school a spell to Miss Parlor. I expect she's a master cook, and I've heard she's even writ cook-books. I should rather my larnin' should run that way than to be runnin' over wth French, or to play on music, or any of them kind of oranks."

Then turning to Belle with a solemn and decided shake of the head:

"Don't never think of gettin' married, Belle, without havin' that part of your education complete, unless you are willin' to make some man's life miserable."

"Yes, Belle," said Max, "Aunt Molly is right; see well to your training if you don't want to make a wreck of any 'precious life.'"

At the word "precious," Belle colored something the hue of the lobster, only a little more on the cardinal, feeling at the same time how provokingly tantalizing Max was.

"Papa" seemed to enjoy the whole joke thoroughly, only, as he expressed it, he didn't like for Belle to have many such shocks until she was better established in health.

Lastly Simon, poor simple Simon, stood in the background, ejaculating at intervals, "Bress de Lord! yes, bress de Lord! We've delivered, yes, we've all delivered, and able to pertake, this were bressed morning, of what came nigh to killin' us last night; bress de Lord for His bounties."

### Chaff.

RETAILERS generally find February a short month.

SECOND SIGHT.—"Theirs was a case of love at first sight." "Why didn't they marry?" "They changed their minds at second sight."

THERE are many who still uphold the theory that "the world owes every man a living," but the only practical way to collect the debt is to work.—*Boston Post.*

APPLICANT: I see you advertise a vacancy in your establishment. I should like to have a position where there would be a chance to rise. Merchant: Well, I want a man to open up and sweep out. You will have a chance to rise every morning at 5 o'clock.

LITTLE SON: I let two poor little boys ride with me on my sled all the afternoon. We beat every one on the hill. Fond mother—I am delighted to learn that my little son is so generous. Little son: The more there is on a sled the faster it goes.

SURPRISE AT THE PARTY.—Little Mose—Fader! you and mudder must come home right away! Miss Brown has come for her plaid dress, and Mr. Snooty wants to take out his check suit, and you have both got dose clo's on!

SCIENTIFIC NOTE.—How wonderfully are the inventions of man anticipated in the animal kingdom! The cuttle-fish has the power of covering itself with a sudden effusion of inky fluid; and what more can man do with the most ingenious fountain pen?

"WHAT is the trouble between you and your husband?" "He makes me jealous of certain ladies." "In what way?" "He mentioned having met them when I wasn't with him." "Pooh! they are not the ones to be afraid of." "Who then?" "Those whom he doesn't mention."

MISS SANBORN of Laconia, N. H., has been appointed a notary public by Gov. Tuttle and his council. She is the first woman to hold such a position in New Hampshire.

A BILL to give women municipal suffrage has been introduced in the Michigan Senate by Senator Miles.

## YOUNG FOLKS' COLUMN.

### Dixie and Da'.

[Written for the RURAL PRESS by MARY E. BAMFORD.]

"And do be careful, Dan dear, and don't shoot yourself or Dixie, and do come home as early as you can. I'll have griddle-cakes for supper, and you know you like them hot, and pa's got some honey on purpose to eat with them."

The boy Mrs. Pollard spoke to laughed as he sprang down the steps of the little old house.

"Of course I'll be careful," he said. "Dixie and I'll come home with lots of birds, won't we, old fellow?"

The big brown dog that had for a number of years been a most beloved member of the Pollard family lifted up his voice in joyful assent as he capered on beside Dan.

"Wait a minute," squealed little Net from the doorway. "Dixie hain't had his blue ribbon on."

"Oh, never mind," called Dan. "Dixie isn't such a dandy that he needs to wear a necktie every day. Don't you know that Captain Smith says that wearing a necktie is a sort of crazy custom anyway, even for men?"

But Net came running after with the "blue ribbon" in her hand, and Dan had to tie the big blue bow on Dixie's collar before Nettie would let the two travelers go their way in peace.

"You're a beautiful doggie," said Net, as she gave Dixie a rapturous parting embrace. "You're just a beautiful doggie, and we all love you."

Dixie jumped up and kissed Nettie, dog fashion, and the interrupted journey began once more.

Dan had started for a day's shooting on "the marsh." This was two or three miles away, being the low-lying land bordering on a bay. Dan and Dixie soon had passed the few farm-houses that were scattered here and there on the road and struck out into the country where the land began its gradual slope down toward the water.

A whiff of salt air came now and then to the boy's nostrils and set him thinking of the broad ocean into which the bay opened, and of the ships that sailed that ocean, and he wondered if he should ever see the lands those ships went to. Musing on such things, looking far into the future as lads will, Dan tramped on till the water and reedy bottoms were in sight.

"Now we'll have fun, won't we, Dix?" said the boy, and the dog rushed on as though going bird-shooting was the most delightful thing he ever heard of. Dan, as full of excitement as he, ran after him, and the two made rather a breathless entrance into the marsh. But after awhile Dan's zeal abated.

The shooting was not very good after all. Dan got one bird, tried to shoot several others, and failed. Dixie was full of frolic and rushed on through the reeds and grass till Dan could not keep track of him, and hardly tried to do so. The marsh was quite deserted. No one else seemed to be out gunning that day.

Sitting down at last on a little mound, the boy drew a couple of apples out of his pocket and proceeded to eat them. He was just finishing his second one, when a long-drawn howl from somewhere in front of him came to his ear.

"Why, that's Dixie!" the boy said, jumping up. "That sounds as if he were in trouble. Guess I must look after him."

Picking up his gun and bird, Dan made his way through the reeds till he came to the edge of the more marshy portion that extended down to the water. Away farther on he saw a big brown dog with a blue bow on his neck.

Dan walked to the edge of the hit of land he was on.

"Why, Dixie," he called, "what ails you?" Dixie gave a lugubrious howl and Dan saw the trouble.

"Why, you're stuck in the mud, ain't you?" he said. "Just wait till I get over there, old fellow, and I'll have you out all right. You must have been chasing a bird."

Dan sprang over the marshy land. Dixie saw him coming and waited with satisfaction for his deliverer.

Suddenly, when Dan was about half-way across the marshy portion, he felt his own footing beginning to fail him. He struggled, jumped for a safer spot, stuck again, stumbled on, dropped his gun and bird, staggered a little, and suddenly sank in the mud up above his knees. There he stuck. Try as he might, he could not pull himself free. In alarm he put forth all his strength, but it was in vain. The more he struggled the deeper he sank. Dixie looked on from his spot and whined with apprehension as he saw the stopping of his friend.

"O Dixie, Dixie!" gasped Dan, as at length in sheer despair he stopped struggling. "What a dreadful fix you and I are in!"

Dixie wagged his tail in appreciation of this remark, and broke out into a most dismal howl.

"And the worst of it is the tide!" groaned Dan. "O Dixie!"

The boy looked apprehensively at the long line of brown water that skirted the marsh a little way off. The dog still howled, and Dan, thinking the animal's example a good one, add-

ed his voice and called for help till the marsh rang again, but no help came.

Dan waited and watched. He knew the tide was rising. Wasn't it creeping up that little place now? Surely that puddle was not there ten minutes ago! Nor that one, either.

"There isn't anything for us to do but just to yell for help, old fellow!" said Dan to the dog, and, opening his mouth, Dan "yelled" in terrific style. His shouts and halloo for help only made a few marsh-hens hurry away from the reeds a little distance off. Dixie, inspired by his master's example, lifted up his voice and alternately barked and howled. Dan panted at last, hoarse and exhausted.

"It doesn't do the least bit of good," he said anxiously, after he had looked around in vain for any coming help. "If I had my gun I could fire, but I don't suppose that would do any good either. Folks often hear firing over toward the marshes. Folks wouldn't know I wanted help, even if they heard the gun."

Dan looked over where his gun lay, six feet or so away. It might as well have been sixty for all the prospect there was that he could reach it.

Warned by his former sinking, he dared not struggle lest he should sink lower still. So he stood and waited. What was he waiting for? The water was rising gently but surely. It rose more and more. Dixie, nearer to the water's edge than Dan, understood in almost human fashion what was coming. The water rose around the dog's feet. Dixie struggled and only sank lower and lower till his beautiful, glossy brown body fairly touched the water.

"He will drown! He surely will unless I can help him some way," thought Dan, anxiously. "Oh, what can I do? He's stuck too fast to get away."

Dixie cast pitiful, appealing glances at Dan. Was his master not coming to help him? The dog's reproachful eyes almost broke the boy's heart.

"O Dixie, dear old fellow," he cried, "how I wish I could help you!"

The water rose higher. Gentle little waves began to quietly lap Dixie's sides, and Dan could see the dog shiver. Pitiful whines broke from him as he looked over at Dan. The boy felt the tears coming. It was too dreadful to have Dixie drown before his eyes, down thinking his master might help him and did not. The time went on, and still the water gently rose.

With troubled eyes, Dan watched the dog's struggles.

"If you were only near enough so I could do something for you, Dixie," he cried.

"Perhaps if I were, Dixie'd help sink me, too," he thought, as he glanced at the water that was near him now.

How slow and how sure the tide was! If it would only engulf Dixie all at once and drown him and he done with it instead of climbing up him and frightening the poor fellow in that heartless fashion! Dan felt as if he had almost rather bear it himself than see his dear old playmate in such trouble.

The water was almost over Dixie's back. The poor creature held his head up and howled dimly, as if he knew what was coming. Grown lad as he was, Dan could not keep the tears from running down his cheeks.

"O Dixie," cried the boy. "Dear old fellow, it was all my fault. I ought not to have taken you gunning out here on the marsh. Poor old fellow! Poor old fellow! Oh, how I wish I could help you!"

Dixie gave a howl of terror and dismay.

"What'll mother say?" groaned Dan, "and Ned and Net and the twins? Oh, if he's drowned and we don't ever have him any more, and he isn't there to bring in the paper nights and to sit by the stove—oh dear! and to run races—"

Short, choking howls came from Dixie's direction. The water was almost over him.

"Oh, good-by, good-by, old fellow, dear old fellow!" sobbed Dan, losing all control over himself and adding his own tears to the water that was already climbing up him. "It's all my fault! Good-by, good-by, dear old fellow, good-by!"

Then Dan shut his eyes and resolutely stopped his ears that he might see no more struggles and hear no more of those pitiful, heart-breaking howls.

After what seemed to him a long, long time, Dan opened his eyes again and looked fearfully over toward the spot where Dixie was. Nothing could be seen except the brown water rising higher and higher. Once, indeed, Dan thought he saw a bit of the blue ribbon, but then he thought he was mistaken. Time went on.

The water had risen above his own waist. It was very cold and uncomfortable standing there. Dan shivered. Desperate, he tried with all his might to pull himself loose, but there was no use trying. Then he called again and again.

"I'm going to drown like Dixie," said the boy to himself. "I wonder if we'll both be found here dead some time when the tide is out? What will mother say? I thought she'd feel had enough over Dixie, but just supposing she has to feel bad over me, too!"

"I wish I'd brought her in that stovewood," he said to himself a moment after, "I forgot it this morning, I was in such a hurry. I wonder if Ned remembered it? Poor mother! I don't believe I've been as good to her as I ought. I wonder if I am going to drown? It must feel awfully. And I—oh, I don't want to die!"

The slow, long minutes crept by, and still

that brown water rose. Dan shuddered as he looked around him. The lowest part of the marsh ground was quite covered. Things were quite still save for that soft lapping of the water. What a detestable sound that was, anyway! Dan listened to it till it seemed to him that the noise would drive him crazy. Would it sound so dreadfully by the time the water had risen high enough to be in his ears? That would not be so very long now. Well, perhaps he might be drowning then, and might not notice the sound. The water was almost up to his shoulders. It could not be so very long now. Hadn't he better pray? What if—

"Hlp! Here's another one, Mike! Shure, it's a dozen we have!"

Dan turned his head and saw a little way off a rowboat. Two boys were in it, not very big boys. Dan recognized them at once. They were Jimmy O'Toole and his younger brother, the red-haired infant that always went on all manner of perilous adventures, and yet nothing ever happened to him.

The older boy was flounder-catching, and it was evident that neither of the youngsters had seen Dan.

"Hallo there! Help me! Help me!" screamed Dan.

Jimmy O'Toole started and dropped his fish in the boat. Where did that voice come from? He stared over the muddy water. Then he screamed. Did ever a boy out flounder-catching see such a sight! A head and two arms sticking up out of the water!

Jimmy O'Toole stared in amazement at the prodigy. The red-headed youngster beside him was excessively interested at the prospect of a new adventure.

"Hurry, I tell you!" screamed Dan. "You dunces, don't you see that I'll drown if you don't get some one to help me pretty quick? Where's your father, Jimmy O'Toole?"

"In—in the t'other boat," answered the amazed Jimmy, who by this time had partially recovered his senses and realized that Dan was a real human being and not a ghost, or a new kind of flounder.

"Well, go get him just as quick as you can, if you don't want me to drown," commanded Dan.

Jim's oars soon took him out of sight.

"He'd better be quick about it," muttered Dan anxiously.

It was doubly dreary to be left alone again. Was the water really going to drown him? Would help come just too late? How the water did feel just splashing up about his throat! And that dreadful rippling sound, so gentle and so hideous! Would Jim find his father? Wouldn't the boy stop to catch a flounder or two by the way?

"If he shouldn't hurry now!" thought Dan, trembling all over.

Oh, how long, how long it was waiting! Why hadn't he drowned long ago? Surely it was time.

"I won't drown," said Dan determinedly at last, as he lifted up his head and looked at the sky. How would it look to him when he saw it for the last time through a film of water?

What was that coming? Dan rubbed the water from his eyes with his wet hand. It was a black thing coming, a longer thing than he had thought. It was, yes, it was a boat, and a smaller boat was following it, and a man's voice came over the water.

"Arrah thin! bould on a bit longer, me bye! I'm a comin'."

Long as the time seemed, it was not two minutes from then when Mr. O'Toole had his boat alongside the head that rose above the water.

"Hould on there!" Mr. O'Toole commanded, as he reached Dan an oar.

A few minutes of vigorous pulling, a wrench that seemed almost to jerk Dan's bones from their sockets, and the boy lay wet and gasping in the bottom of the boat, his head pillowed on a pile of flounders.

"It's me helafe that ye'll never see ayther of yer hoots again," announced Mr. O'Toole as he rapidly plied the oars and took a careful survey of Dan's stockinged feet at the same time, "An' what yer mother'll say to yer pants looking loike that I don't know. The marsh's an awful sticky place in some parts."

"You'll catch it!" snuggled Jimmy O'Toole, who, of course, with his red-headed brother occupied the smaller boat, and who had given up the glories and delights of flounder-catching for the privilege of joining in bringing Dan home. Jimmy had arisen in his own boat, and had taken a particular survey of the state of Dan's garments.

"You'll catch it!" Jimmy reiterated, as having satisfied himself with looking at Dan, he once more resumed his seat and took to his oars. And the expression of Master Jim's countenance bore witness that he would not in the least object if he could be present and witness the scene of Dan's "oatohing it."

But Dan, completely exhausted by his experience, in spite of Jimmy's threat, lay still with his head on the pile of flounders, undisturbed by any worries over what was to come, so thankful was he to have escaped what might have been.

And when, a few hours later, on Farmer Willett's milk-wagon Dan rode safely into the home yard, the mother that came to the door and heard the story of the day in the marsh, never said anything about the state of her boy's clothes, but took him in her arms, all muddy as he was, and said with trembling voice, "O Dan, my hoy, my dear hoy! If it had been you instead of Dixie!"



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Steam Harvester—Daniel Best, San Leandro.  
Plows—Oliver Chilled Plow Works.  
Mowers, Plows, Etc.—Allison, Neff & Co.  
Orange Land—McAfee, Baldwin & Hammond.  
Plow—J. A. Bliz, Pleasanton.  
Flour—The Central Milling Co., Salinas.  
Vapor Engines—Bergant Vapor Engine Co.  
Water Motors—Pelton Water Wheel Co.  
Combined Harvesters—Matteson & Williamson Mfg. Co., Stockton.  
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Pumps—F. W. Krogh & Co.  
Fruit Graders—Mosher, Chandler & Co.  
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Lumber and Sheathing Laths—John F. Byxhee.  
Olive Trees—L. A. Mitchell, Oakland.  
Orange Trees—G. Tosetti, San Leandro.  
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Jersey Cattle—Perrin Stanton, Sacramento.  
Pacific Bank—R. H. McDonald.  
Peoples' Home Savings Bank.  
Corn Cultivator—Higginson Mfg. Corporation, Hingham, Conn.  
Beet Seed—W. C. Damon, Napa.

See Advertising Columns.

Citrus Fair Postponed.

LOS ANGELES, February 25.—The opening of the Citrus Fair has been postponed until March 10th, owing to the washouts on the railroads and the impossibility of the exhibits arriving on time. The proposed bankers' convention, which was to have met on March 4th, has also been postponed until March 11th, so as to be held at the same time as the fair.

The Week.

The RURAL PRESS this week pays its compliments to its many old and new friends in Southern California and congratulates them upon their glorious achievements in building up and developing their portion of our great and glorious State. The holding of the Southern Citrus Fair seemed a fit occasion for specially recognizing results in which the whole State of California has a sincere patriotic regard, and we trust that our efforts with pen, pencil and camera may contribute, in some slight degree at least, toward the suppression of sectional feeling and the strengthening of mutual regard and appreciation throughout our whole State. We have had a meeting of the Legislature without a proposition for the division of the State, and may we never again have one with it.

The rains north and south have been grand in the general volume and effects. Unfortunately, they have brought some loss of life and property, and rejoicing must be mingled with sorrow, sympathy and sincere regret. The results, however, in the general wealth, prosperity and progress of our State will be beyond calculation.

The Orange in Southern California.

We have two handsome engravings on preceding pages of this issue illustrating the growth of the orange, the king of semi-tropical fruits, in Southern California. The thrifty, heavily laden tree on our first page needs but the glorious green and gold of nature to be a realistic representation, and even as the camera shows it, it is fit to call forth exclamations of admiration. The verdure of the foliage, the gold of the fruit, the fragrant snow of the bloom—all are among the gems of vegetable growth.

The other engraving, which presents a view of an orange grove with the garden plants and a fragment of the dwelling in the foreground, displays well the charm which may environ the life of the dweller in the orange regions of California. This picture gives a truer idea of the size and symmetry of well-trained trees when they attain the age of many of the Southern California groves.

Both of the engravings to which we refer are fairly illustrative of the region which will next week bring together its best horticultural works at the Southern Citrus Fair to be held in Hazzard's Pavilion in Los Angeles. An article on another page of this issue goes more into detail concerning the preparations for this exhibition, and the premiums which await the victors in the honorable contest, which will then be held. We hope many of our readers from both near and distant parts will be there to feast their senses upon the enchantments of the occasion.

But the orange interest is, of course, not beauty and fragrance alone. It has a most firm commercial basis, and is now being advanced upon more intelligent and energetic lines than ever before. It is triumphing over its besetments and its difficulties, it is being developed with the greatest earnestness and discrimination, and great as it is to-day, it never had a better outlook, nor ever seemed so well endowed to enter upon it. Statistics are usually satisfactory means when used toward an honorable end, and none can be more pertinent to the occasion which calls forth this special edition of the RURAL PRESS than the following summary of the orange product of Southern California for the year 1890, as compiled by the Redlands Citrograph from authentic sources:

County.	Boxes.	Carloads.
San Bernardino.....	487,000	1,705
Los Angeles.....	198,695	781
Orange.....	112,190	307
Ventura.....	9,460	33
San Diego.....	6,600	23
Totals.....	813,945	2,840

These figures include only those oranges which were loaded upon cars for shipment by railroad freight or express. The vast numbers more which were consumed by an orange-loving population of nearly 200,000 people in the above counties must be calculated, if one desires to estimate the aggregate product. And these were the figures for last year's crop; it is believed that the crop of the present year, now being harvested, will exceed by nearly one-half that of last year as summarized above.

Friends of the Orange Grower.

[By ALEXANDER CRAW, Entomologist of the State Board of Horticulture.]

In the year 1872 an extensive orange-grower in the San Gabriel valley purchased several small orange trees at a San Francisco tree depot, and planted them in his grove with the intention of budding from them, if the varieties proved desirable, as previous to that most of the citrus trees in California were grown from seed and allowed to bear fruit as seedlings. The trees were found to be infested with a scale insect of a species of *Aspidiotus*, which spread to the adjoining orange trees, and their presence was detected by the mottled, sickly appearance of the leaves and fruit. A determined effort was made to check its spread, and, if possible, stamp it out, and the trees in the infested portion of the grove were cut back, the branches burned, and the trunks and limbs scrubbed; but after all this heroic treatment, enough scales escaped to infest the district.

To distinguish it from the "brown scale," *Lecanium hesperidum*, and the "black scale," *L. oleae* (the only scales that were then attracting attention in the State), it was named the "red scale," from its reddish-yellow shell, and was considered identical with the red scale of Australia, *Aspidiotus aurantii*, Maskell; but quite recently specific differences have been observed that prove it distinct, and it is now known as the "yellow scale," *Aspidiotus citrinus*, Coquillett. Various solutions were sprayed on the trees; sulphur and other substances were inserted under the bark, and the small roots were severed, and to the ends leading to the trunk vials were placed containing chemicals of various kinds, in the hope that the roots would take the chemicals up and destroy the scales; but in a great many instances the trees were destroyed instead, and others injured and made unproductive by reason of the caustic or greasy properties of the washes then used. In the meantime the scale was slowly but surely spreading, until now it is found in nearly all the orange-growing sections of the valley and adjoining foothills.

In the spring of 1889, Mr. Cogswell, of the Sierra Madre Villa, informed me that the scales

pedicel and funicle are two very small ring-joints that form the elbow; joints three and four are the shortest, five and six each increase in length and diameter; seven is twice the length of six, and eight is the same length as seven, but narrower and tapering. Head is yellow; eyes black, ocelli bright red; posterior portion of head and pronotum are very dark brown. Thorax, golden yellow; abdominal segments are dark brown, almost black; wings are furnished with long marginal hairs; the surface of the fore wings are covered with short hairs, with the exception of a strip commencing near the stigma and extending around the wing to nearly the opposite edge. Legs light yellow.

Recommendations.

We will undoubtedly always have the yellow scale, but no doubt the trees and fruit can be kept in a healthy and clean condition by this parasite. I would therefore recommend the colonization of it wherever the "yellow scale" is found. In two former articles I have recommended that an effort be made to colonize this parasite upon the true red scale, *Aspidiotus aurantii*, but in a recent visit to the Villa grove I had conclusive proof that this will be impossible, or at least of no practical benefit. Mr. Cogswell called my attention to a different scale he had noticed upon a lime tree near the hotel. This proved to be *A. aurantii*, and I advised the destruction of the infested trees, as this scale would be a more serious pest to contend with, for nothing but fumigation with hydrocyanic acid gas has been of any avail against it. I cannot account for its appearance there unless it has been taken upon an orange by a visitor to the hotel and the infested peel thrown under or on to the lime tree.

How to Colonize the Parasite.

The colonization of this parasite will not be as satisfactory to the orange-growers as was that of the *Vedalia cardinalis*, because we cannot see the larva pick up the scale and devour it; however, if they are introduced in an orange grove infested with yellow scale, the beneficial results will be certain, even if not immediately observable, as was the case with the *Vedalia*. Branches should be obtained with scale-infested



YELLOW SCALE PARASITE (*Coccophagus Citrinus*), NEW SPECIES.

were not as numerous in his grove as they had been, but he could not account for their disappearance. He brought me branches infested with yellow scales, from which I hatched a number of very small chalcid flies; this parasite, however, had been discovered by Prof. D. W. Coquillett two years previous, in the extensive groves of A. B. & A. S. Chapman; but as the improvement in the condition of the trees was more noticeable in the Cogswell grove, I am of the opinion that they spread from the latter to the Chapman and other orchards.

Various theories have been advanced for the disappearance of the yellow scale in that section; the principal one is, the excessive rainfall of the winter of 1889-90. But this theory can easily be exploded by the fact that we have had very heavy rains in previous winters, and again, the improvement was noticeable and commented upon previous to the winter of 1889-90. If the rains had caused the destruction of the scales, why is it that the decrease is not all over the infested section? I find that where the parasite has only recently been found, or where I have been unable to find them at all, the yellow scales are as numerous as before. I have recently hatched them by the hundred from scale-infested leaves taken from an orchard wherein a little over a year ago the parasite was not known to exist. The presence of such numbers of parasitic insects—even if they are so minute as hardly to be detected with the naked eye—should be sufficient to convince even the most skeptical that the scales are succumbing to "nature's remedy."

The fact that the scales appeared to be on the increase last fall can be accounted for. That is the time when our scale pests have every season shown the most increase, and that this was noticeable in the orchards where the parasite has been at work the longest, is not very remarkable, as we have had another identical case. When the cottony cushion scale was supposed to be cleaned out of some groves, and consequently there was no food for the *Vedalia cardinalis*, the latter disappeared, and a few of the former that escaped increased and caused considerable alarm; but they were soon destroyed when the growers placed a fresh colony of the ladybirds on their trees.

**Description.**—Length, one-fortieth of an inch; wing expanse, one twenty-fourth of an inch; antennae, as long as head and thorax; color yellowish and covered with short dark hairs, eight-jointed, scape slender and slightly curved, stout pedicel one-third length of scape; between

leaves from an orchard known to contain parasites in numbers. This can be ascertained by placing a few infested leaves in a white paper box, closing them up tightly with a cover; and after a few days the box and leaves should be examined with a magnifying glass—this is really necessary; for even with good eyesight they will be overlooked, as they are so very minute. If numbers are found, branches should be taken, and the ends placed in boxes containing wet sand or soil; this will keep the leaves fresh and allow the parasites to develop and hatch. As the branches dry up, others can be procured and the operation repeated. The boxes should be placed under the trees in the shade, or be secured in the branches, and so located in the orchard that the prevailing summer winds may aid materially in their distribution.

Golden Chalcid—New Species—(Unnamed).

This new parasite is also working on the yellow scale, and is indeed very promising. It was first observed in Duarte; but recently I received numerous specimens from an orchard near the Stoneman tract, San Gabriel, and also from an orchard in Alhambra. It is very interesting to know that from the infested branches received from these orchards none of the *Coccophagus citrinus* were hatched, showing that this newer species is working by itself upon the scale in those districts.

The parasite is much larger than the other, and of a bright golden-yellow color.

Notes.

Some of the internal parasites have, like the scales they attack, but one generation each year. This is the case with the one upon the black scale, *Lecanium oleae*. Seventy-five per cent of these scales are annually destroyed by a parasite, *Dilophogaster Californica*, Howard. This is a great check to what would otherwise prove a very destructive scale; but the parasite only deposits eggs in the mature scales and just about the time the latter contain eggs, so that the 25 per cent that escape the parasites are sufficient to again infest the tree, from the fact that each scale contains from 700 to 1000 eggs. But it will be fully ten months before the scales are developed enough to be attacked by the *Dilophogaster*. This is not the case with the parasite of the yellow scale. They are breeding all the time. I have found them every month in the year; and a half-grown yellow scale is ample food to develop and mature a parasite.



## The Tuna.

[Written for the RURAL PRESS by C. R. ORCUTT.]

Probably no class of plants is more greatly admired or more thoroughly detested than the *Cactaceæ*—admired for their oddity, for their beauty of form, for their lovely flowers and for their insidious fruit, the cacti are detested to almost an equal extent by the average cattleman or rancher as a useless cumber of the ground.

The flattened oval or elliptical stems of the *tuna*, abundantly armed with a formidable array of spines, is the type of one of the most familiar forms of cactus, and perhaps better known to English-speaking races as Indian figs or prickly pears.

Among the numerous known forms of *Opuntia* there are several species which are very generally known to the Mexicans by the name of *tuna*. *O. tuna* and *O. ficus-indica* are the two species to which this name is more frequently applied, but the common wild varieties or species of flat-stemmed *Opuntias* are very generally included without distinction.

These cacti are very widely utilized in Mexico and in portions of the United States along the Mexican border in a countless number of ways. The cattleman, after burning the spines from the tender, succulent joints, will feed them to his stock with profitable results; or, in a treeless region, he will plant them as hedges around his corrals or cultivated fields, thus utilizing what in the previous case he destroys—the plant's natural defense against total extermination.

Growing in dry, sandy or rocky soil, they thrive where scarce any other vegetation can exist. Planted around the Californian Missions in the most fertile spots, they attain a most luxuriant growth. Thus, they are naturally adapted not only to thrive in sterile districts and to prepare the barren soil for other classes of vegetation, but they are equally at home under the most advanced stages of cultivation.

The *Cactaceæ* are without exception, I be-

*tuna*. This famous species, so well known as a hedge plant in Mexico and the West Indies, abounds on every high, sandy beach from Tampa bay around to Miami, and, perhaps, still farther north on the east coast. It quite often grows in impenetrable masses, four or five feet high, and is characterized by large oval joints, six or eight inches long. It is covered with two sets of spines, some small and chaff-like, but whose close acquaintance is not to be courted, and others an inch or more long, as sharp and strong as needles, and quite as formidable as any cactus we have seen. The yellow flowers almost invariably have a rosy tinge, and the plant is beautiful, both when in bloom and when covered with the large, rich, purple berries or prickly pears.

"Besides its use in tropical America as a hedge plant, it is used as one of the principal cochineal plants. It is quite hardy and will stand several degrees of frost unharmed. The fruits,

known as 'Indian figs' in the West Indies, and stray specimens occasionally find their way into the New York markets from some West Indian vessel."

In *Garden and Forest* I have called attention in a note to the possibility that the manufacture of syrup from the fruit of the *opuntia* may at no far distant day become an important industry in Southern California. The juice of the fruit which these plants produce in great abundance, may be extracted in a cider press like the juice from apples, and boiled down to a fruity syrup indistinguishable in flavor from that manufactured from the watermelon. Excellent vinegar or wine may also be made from the juice. Three varieties or more are found naturalized around the California Missions, called the *tuna*, *tuna colorado* (red tuna), and *tuna manse* (tame tuna) respectively by the inhabitants of Mexico. They are extensively cultivated in Mexico for their fruits, and a great variety of forms occur in that, their native country. Dr. Edward Palmer, a noted botanical explorer, has contributed an interesting article on *opuntia* fruit as an article of food to the *West American Scientist* (VI 67), which has been widely quoted and is reprinted in the

broad-spreading plant, with a cylindrical, woody, thick stem when old (up to 45 cm. long and 30 cm. broad in size), green, thick (2½ cm.), thinner on the edge, elliptical, with small reddish leaves; areolæ regularly distributed, sunken, thornless or rarely covered with a few single, small, bristly, white spines. Flowers large, brimstone yellow. Fruit very large and edible. Grown in large quantities in Sicily for its delicious fruit. Four varieties, with yellowish, blood-red, whitish and seedless fruit respectively, the two latter considered the best."

The *tuna colorado* naturalized at the old Mission of San Diego, which I take to be a type of *O. ficus indica*, produces a rather insipid fruit, not very sweet, mealy, closely resembling in taste and flavor a frozen apple. The color is a crimson lake inside and out, the epidermis slightly dalled by a glaucous bluish. Seeds numerous, over 200, easily separated from the pulp. The fruit is ovate, 3½ inches long, 2½ inches in diameter, smooth, with over 60 areolæ of fine spines distributed over its surface, a fourth bordering the deep-brownish umbilicus which is an inch across. Spines usually few, short and weak; whitish, often entirely absent.

OPUNTIA TUNA—Linn.

"A native of Mexico and Columbia. Tall, broad-spreading plant, large, rather long (10 to 20 cm.) ovate or elliptical stems, the edges curving, with pointed green leaves seven mm. long. Covered with hunches of spines growing close together at base of stems, and wider apart at top, like gray felt in color, the upper spines brownish-yellow, underneath four to six stiff, bodkin-like, light yellow spines of unequal length (9 to 21 cm.) Petals the shape of rose leaves, mucronate; stamens yellow; stigma five-lobed; green."—Forster's Cacteen.

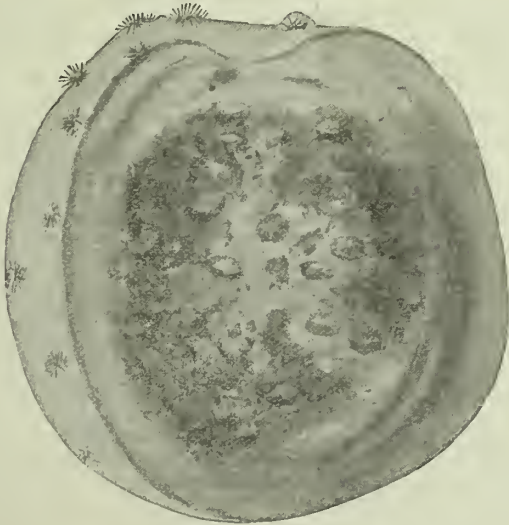
The *tuna* which I take to be this species bears a very juicy, sweet, delicious fruit, yellowish-green when mature, nearly three inches long and two inches in diameter, with fewer seeds (about 150). The greenish white, firm pulp is very cool and refreshing, from which the seeds do not readily separate as in the *tuna colorado*. The slightly glaucous epidermis of the fruit is similarly armed with an equal number of areolæ of fine, short spines, very disagreeable, but easily disposed of by an expert—though dangerous to a novice if he should stand to windward while brushing them off the fruit, when they are liable to blow into the eyes with disastrous results. The average Mexican or In-



TUNA MANSE AS GROWING IN SAN DIEGO.



WILD TUNA.



TUNA MANSE.



TUNA COLORADO.

lieve, indigenous to the American continent and the adjacent islands, but the tunas in numerous varieties have become extensively naturalized and are also cultivated with considerable profit in the south of Europe. In Sicily, *Opuntia vulgaris* is said to thrive in volcanic districts, which would otherwise be barren of vegetation.

The Mexican names *nopal* and *tuna* refer to the same species of plants, but *nopal* refers to the leaf-like stem, while *tuna* refers to the fruit. From being used to indicate a part only of the plant they had come to be generally applied to the whole.

The *tunas*, naturalized around the Missions of Southern California, were brought from Mexico by the Spanish padres, who trained them into hedges around the Mission gardens and buildings. They grow from 10 to 15 feet high, producing an abundance of a large, well-flavored, edible fruit.

P. W. Reasoner, in the *American Garden* (xi.532), in writing of "native Florida cactuses," gives the following interesting account of the occurrence of two species of *tunas* in that State:

"Next, and of more importance, is *Opuntia*

covered with occasional tufts of small chaff-like prickles, are two or three inches long, somewhat pear-shaped and pumpkin-colored. They are produced in the greatest profusion. We know of an array of glasses of marmalade, and jars of the richest wine-colored sweet-pickles, made from the fruit, and as tempting as an epicure could wish.

"Equally famous is *O. ficus-indica*, the 'Indian fig' cactus. This species has escaped from cultivation and has become naturalized in a few places in south Florida, especially on Key West. It, also, is very hardy, and would doubtless prove so in north Florida. It is a most striking and picturesque plant, attaining, in a few years from the cutting, a height of 10 or 12 feet, with immense flat joints a foot or even 14 inches in length. The scale-like spines often drop off and leave the surface perfectly smooth, so it is not very prickly nor difficult to handle. The fruits are larger than those of *Opuntia tuna*, and are yellow in color. The pulp is sweet and has very few seeds. It is very much liked by most people who are familiar with it, and we have seen those who preferred it to such popular and delicious fruits as the orange and banana. The fruits are

annual report of the California State Board of Horticulture for 1890, page 133, and elsewhere. In the same report is given a plate illustrating the fruit of the *tuna colorado* and the *tuna manse*, and also of the wild *tuna* (*opuntia engelmannii*). See engravings used herewith.

Gerald Hastings (*American Garden*, XI, 475) says: "Several species of *opuntia*, particularly *O. tuna*, yield the red, green or yellow fruits known as prickly pears. These are sweet and juicy and extensively used as dessert by the Mexicans and inhabitants of Southern Europe. Their juice is used as a water-color at Naples, and for coloring confectionery in the West Indies."

OPUNTIA FICUS INDICA—Haworth.

"During the eighteenth century Mr. Philip Miller of Chelsea Gardens, England, brought several cacti into notice, at least eight being credited to him and described in his *Gardeners' Dictionary* in addition to those already known. Martyn's edition of Miller's *Gardeners' Dictionary* enumerates, among others, *Cactus ficus indica* and *C. tuna*. Not having access to the above works, I am unable to learn with any degree of certainty as to the characteristics of the types of these species. Apparently the most reliable description accessible to me is in Forster's 'Cacteen,' of which the following is a free translation:

"Native of South America, cultivated south of the Rio Grande under the name *Nopal castillano*; naturalized in Italy and Sicily; tall,

dian learns to handle these fruits with utter indifference to the spines.

The spines are abundant and rather formidable in appearance on this beautiful plant, but are really one of the most useful characteristics of the plant, making it very useful for hedges and fences.

OPUNTIA "TUNA-MANSE."

The color of the fruit of this *tuna* outside is of a deep ochraceous-buff, slightly glaucous, irregularly mottled and blotched with crimson, giving it a bloodshot appearance; inside the outer coating is of the same coloring, but the pulp inclosing the seeds is of a light greenish-yellow.

This is the most abundant of the three forms of *tunas* naturalized at the San Diego Mission, and like the others is credited with a Mexican nativity. The fruit is nearly globose, with a yellowish umbilicus, pitted in the center, an inch in diameter and smaller proportionally than in *tuna* or *tuna colorado*. Seeds more numerous than (about 250). Areolæ and spines on fruit and stems differ but slightly if any from *O. tuna*, from which the plants may not be readily distinguished except when in fruit.

[The manner of growth of this species is shown in the engraving, showing a clump with the figure of a man central, thus indicating the size the plant attains. The cuts of the three species of fruit are from B. M. Lelong's report for 1890, as noted above.—EDS. PRESS.]



## Southern California,

As Described by "Solid Men."

During the last ten years Southern California has attracted the attention of people in all the civilized parts of the world. Much has been printed for and against it. Opinions and purported statements of facts have been scattered broadcast over the land, and but comparatively few are correctly and safely informed as to the real facts, or what they forecast as to the future.

Incorrect information on these subjects is of no permanent value to us or to any one else, while correct information will enable all parties to successfully and safely conduct business connected with this country.

The undersigned banking institutions in Southern California have prepared the following pages to answer the vast number of questions constantly propounded by mail, and to correctly inform others desiring reliable information relating to our social, financial, productive, commercial and other interests.

Having carefully considered the matters herein set out, we deem them reliable and accurate in the light of all observation up to the present time.

Recently this country experienced one of those remarkable excitements correctly described as a boom. That has passed away, and now at the expiration of three years that which remains may be regarded as resting on substantial merit, that will stand the wear and test of time.

The information herein given is not based upon "boom conditions," but upon conditions existing after the boom has passed away, and such as may safely be regarded as permanent.

The prosperity of Southern California rests on no one thing, but on a combination of favorable facts found in no other place in the world. It is this combination and no one fact that insures the rapid and permanent growth; and out of this combination has arisen this wonderful prosperity.

## Main Facts.

The main facts are the unrivaled climate, the fertility of the soil, its prolific productive capacity, the variety and semi-tropical character of its productions, and the local and transcontinental railroad systems connecting it with every depot and station in the United States; a frontage on the Pacific ocean—some 300 miles—connecting thereby with every port and harbor, and connecting with the commerce of the world, and its telegraph system reaching all business cities and nations. It is in the hands of the Anglo-American, the most clear-headed, inventive, forecasting man yet produced in the history of the human race. It is in and a part of the most advanced civilization of the nineteenth century. It is under the best and most liberal form of government. It is exempt from most epidemics and probably the most healthful land known. Its educational and social interests are on broad and secure foundations. It is this combination that has drawn and will continue to draw and keep here the wealth and intelligence of the race.

It may be safely concluded that the prosperity of this southern country rests on the safest foundation, and that as time passes there will be a safe and permanent growth in all departments of business.

## Business Principles.

However, must be the foundation of success in business in all places, and this is no exception to the rule. Industry, thought, economy, energy and good judgment must be applied here as elsewhere. In rare cases should people incur debt, especially in the purchase of lands, unless the party has safe reserve resources with which to meet deferred payments. The violation of this rule is the cause of nearly all financial disasters that have occurred to individuals.

## The Climate.

Much has been said and written on this subject. It must not be expected that every human being would find here just what he calls perfection; at the same time it can safely be said that our climate furnishes more desirable conditions and fewer objectionable ones than probably any other part of the globe. The extreme of cold in the valley portions is a light frost before daylight a few nights each year, with a somewhat heavier frost three or four nights each decade. This temperature shades off into heavier frost on a few or more nights on low damp land. As higher mountain altitudes are reached the cold of altitude appears in frost and snow. The summers are tempered by a refreshing movement of dry air from the ocean inland, which expands and becomes an absorbent of moisture. This absorbing power of the dry moving air evaporates and dries the moisture of perspiration from the body, producing a cooling and refreshing effect. No sultriness ever occurs. The seasons can be quite accurately divided into two—spring and summer, the former extending from the first rains in November or December until May or June, and the latter from June to November. The unpleasant characteristics of fall and winter do not appear. Occasional winds reaching a velocity of 30 miles an hour are the rare extremes of atmospheric violence. The yearly climate will average much pleasanter than May in any of the snow States.

The climate varies but little from the above, and only in minor details. Tornadoes, hurri-

cans, cyclones, sunstrokes and mad dogs are wholly unknown here.

## Soil.

The soil is a deep, rich, sandy loam, almost free from clay, having a depth of from several to 20 and 50 feet. It is constantly replenished and fertilized by the ingredients in the irrigating waters. Under the influence of the mild, warm sunshine, vegetable growth progresses every day in the year. The productive capacity is proportionately great.

## Variety.

It would be easier to name the products that will not flourish here than those that do. Generally all products from oranges to apples, vegetables to wheat and corn, berries and nuts of nearly every variety are grown in prolific yield.

The report of the State Viticulturist shows that the average net profits from all the raisin vineyards in the State for 1889 was \$257 per acre.

A leading merchant from Chicago, Mr. A. A. Sprague, said in March, 1890: "The raisin product of California has become famous in the East. We prefer them to the raisins of Spain, and in years to come the supply will necessarily be greatly increased, or it will not equal half the demand. Dried fruits of all kinds and the citrus crop find ready purchasers. We look to the fruit-producers of the Pacific to supply the wants of the people. Great as has been the development here, there is a vast acreage that should be turned to account and made to produce its share of the gross amount. Encourage the fruit-raisers in every way to improve the land."

## Transcontinental and Local Railroads.

Time was when all commerce followed the lines of rivers and oceans as the cheapest method of transportation; but in this era of progress, railroads are the arteries of commerce and travel. The scent of the railroad companies for business is very keen and a certain index of local development.

Two transcontinental lines are in full operation into Southern California, while another from Salt Lake City is in process of construction. It may safely be said that every transcontinental railroad south of Salt Lake will enter this part of the State, giving unsurpassed facilities to travel and commerce. Local roads are already gridironing every producing district. The ocean opens out to the commerce of the world on the whole frontage of Southern California, in bays and roadsteads, where the quiet waters of the Pacific deal kindly with all vessels the year around.

This system of transportation radiating to all points of consumption and all markets can hardly be overestimated in measuring the future. With this is the telegraph system almost co-extensive with transportation, which will report the supply and demand and prices for our products daily or hourly from all points of commerce.

## Anglo-Americans.

The growth and development of a country depends largely upon the race possessing it and handling its resources. Here the Anglo-American, with all of his inherited and developed energy, clear conception and enthusiastic executive ability, predominates and is the controlling element. With him side by side pull and push the choice brain and muscle of nearly every civilized race. The scientific and practical knowledge of these people in all departments of producing and business are developing unusually able executive men, from whom great and safe results may be expected.

All of the best results of the civilization of the nineteenth century are or will be applied here in the great work of development. The form of our government—liberal, safe, strong, just and encouraging—is such as to co-operate in producing the greatest activity and encouragement. That a people may enjoy in peace and safety the results of their labor is the great inducement to labor.

Society is here forming its most desirable conditions. Educational institutions are being established very generally, and give promise of growing and meeting the social wants in this respect.

## Cost of Lands.

The price of land depends largely upon the uses to which it is adapted. Lands for semi-tropic fruit culture, with water under a good system (say one miner's inch for ten acres) is worth from \$250 per acre up to \$1000, and will eventually reach a much higher figure. Lands for raisin-grapes sell at from \$100 per acre up to \$300. Lands for other purposes are worth from \$100 per acre down to \$50 per acre.

Orange culture up to the present yields a net profit of from \$250 per acre up to \$500. Raisin vineyards yield a profit of about \$200 to \$250 per acre. Figs properly handled will yield a profit of about the same per acre. English walnuts, olives and many other fruits and nuts will yield fully as great a profit.

The cost of setting out ten acres of land in oranges and five years cultivation of the same, not counting the price of the land, estimating eighty trees per acre, is about \$2000, or \$200 per acre. The cost would be about the same for raisin-vineyard, figs, olives or nuts. When in full bearing, at present prices, the income will pay ten per cent interest on from \$3000 to \$5000 per acre. As prices of the products decrease the rate of interest will decrease, and the yield or income will still represent the interest on nearly the same amount. It may be safely estimated that every ten-acre tract of

good land with water for irrigating will support and educate a family, with a margin to spare.

## Co-operative Associations.

Producers in each community should organize into co-operative associations, the object of which should be to so direct the kinds of fruits and nuts planted, and to so prepare the crops for market as to attain the best results possible. Such associations, having their common hall and reading-room, could, at a very little cost to each member, furnish all the best literature in horticulture, arboriculture, agriculture, markets and such other subjects as would enable the community to have the maximum benefit at a minimum cost. Out of this would grow co-operative canning, drying and packing establishments where the labor of the community could put the products into the best marketable condition. Safe market brands and reputation would thus become known throughout the commercial world, giving higher and better markets. Money could be advanced as loans by banks, or those who have it, on storage receipts, to neighbors who need it, the fruit being in storage in the hands of the co-operative association in the care of skilled and competent men. Crops of a whole community can thus be harvested from small orchards as well as from large, and marketed in large quantities, by wholesale, from such associations.

## Manufacturing.

Accompanying the growth and development of the country will be the establishment of such manufacturing enterprises as will be needed to produce the particular products needed in that development. It would be difficult to designate such enterprises at present with certainty. Those having experience and ability in such departments should come and study the wants of the country and then open such works as will meet a present demand. In this way a safe and healthy growth will occur. It is safe to say that several millions of capital could be to-day safely and profitably utilized in this development with every assurance of a good business profit.

## Secure a Home.

The great mistake of the laboring classes is their neglect to secure a home when land is cheap. The laboring man should at once buy the best lot he can afford to pay for, either in cash or by installments. A lot costing \$50 or \$100 or \$300 in any suburban town will make a home place where, free from rent, his family can live, and on such a home a few fruit trees and a vegetable garden will produce a large supply of healthy food. A lot at any price is better than the same money wasted in expenses or paying rent.

## Cost of Living.

The cost of comfortable living in Southern California is probably a little below the cost of the same in the Eastern and Western States. The mild character of the climate makes a material reduction in such cost. The productive character of the soil is such that a space of 50 feet square will, if fully cultivated and replanted, furnish fresh vegetables the year through for a family of seven persons.

In conclusion, we would say to all who contemplate a change of residence or business, to come and see for themselves. In all cases, use your own judgment, and enter into no enterprise unless you can safely see your way through to success.

There is room here for a population of several millions of contented, happy and prosperous people. Those who come with bona fide intention to aid in upbuilding this coming empire, who expect to apply thrift, sobriety, intelligence and honesty, may rest assured that they will receive not only the encouragement but the direct and legitimate assistance that the bankers of Southern California can give.

Riverside Banking Co., Riverside, Cal.; O. T. Dyer, manager.

The University Bank of Los Angeles, R. M. Widney, president.

First National Bank of Los Angeles, E. F. Spence, president.

Los Angeles National Bank, Geo. H. Bonebrake, president.

The City Bank of Los Angeles, A. D. Childress, president.

Los Angeles County Bank, John E. Plater, president.

Security Savings Bank and Trust Co., F. N. Myers, president.

Farmers' and Merchants' Bank of Los Angeles, H. W. Hellman, vice-president.

The National Bank of California, Los Angeles; John M. Marble, president.

Main Street Savings Bank and Trust Co., J. B. Larkshim, president.

The Broadway Bank of Los Angeles, Cal., H. Sinsabaugh, president.

Savings Bank of Southern California, E. F. Spence, president.

State Loan and Trust Co., Geo. H. Bonebrake, president.

Los Angeles Savings Bank, John F. Plater, vice-president.

First National Bank of Riverside, A. H. Naftzger, president.

Santa Barbara National Bank, Wm. M. Eddy, president.

First National Bank of Santa Barbara, Cal., A. L. Lincoln, cashier.

The Commercial Bank of Santa Barbara, Cal., Geo. S. Edwards, president.

Southern California National Bank, W. F. Bosbyshell, vice-president.

The Bank of Anaheim, Orange Co., Cal.; Pelez James, president.

The Bank of Ventura, Cal., E. P. Foster, president.

Wm. Collins' Sons, Ventura, Cal.; J. S. Collins, cashier.

The Commercial Bank of Santa Ana, W. K. James, cashier.

First National Bank of Santa Monica, L. R. Vincent, vice-president.

The Bank of Tustin, Orange Co., Grey Smith, manager.

## METEOROLOGICAL.

## What Is an Anti-Cyclone?

Lieutenant Finley has issued a bulletin explaining the use of the term "anti-cyclone" in meteorology. A former bulletin dealt with the cyclone. The later bulletin reads:

The employment of the term anti-cyclone for meteorological purposes naturally follows the use of the word cyclone. The prefix anti indicates the existence of a contrary system in the air directly contrary to that which prevails in the cyclone. As the circulation of the air currents differ widely from those of the cyclone, so also are the accessory phenomena of an opposite nature. The anti-cyclone is an area of high barometer in which the atmospheric pressure is decidedly above the normal. The highest pressure is at the center and diminishes thence outward to the circumference. The circulation of the air is spirally outward from the center. The air does not attain a circular motion anywhere within the area, and the tendency to a spiral movement is only disclosed when the whole disturbance is charted and observations from every quarter are available. The circulation of the air in an anti-cyclone gives rise to westerly winds on the north side of the center, northerly winds on the east side, easterly winds on the south side, and southerly winds on the west side. The four quadrants of an anti-cyclone are distinguished as follows: In the N. E. quadrant, clear, cold, dry weather, with winds of moderate force; in the S. E. quadrant, a cold wave, with the lowest temperatures, clear, dry air and high winds; in the S. W. quadrant, fair, cool, pleasant weather, with gentle winds and haze; in the N. W. quadrant, increasing temperature, increasing humidity, cloud formation and threatening weather.

The front of an anti-cyclone is the extreme rear of a cyclone, and the extreme rear of an anti-cyclone is the front of a cyclone. The air moves downward and outward in an anti-cyclone and inward and upward in a cyclone. The air which flows outward from the top of a cyclone is cold and dry because deprived of its heat and moisture in the development of rain or snow. This air descends toward the earth's surface and gives rise to the formation of the anti-cyclone. There is always an anti-cyclone between two cyclones, both of which are feeding the former and maintaining its identity. The cold weather of an anti-cyclone is partly due to the descent of cold air from above, the horizontal flow of cold air from the northern regions and the effect of radiation, which is greatly augmented by the absence of vapor and clouds. The area of the anti-cyclone is frequently greater than that of the cyclone and its form less regular. Anti-cyclone is synonymous with clear, cool weather, moderate winds and a cold wave; and cyclones with cloudy weather, rain or snow, high winds and warm wave. The word "high" on the weather map indicates the area of an anti-cyclone, and the word "low" the area of a cyclone. Both disturbances are beneficial and necessary to the prosperity of mankind.

## The Artificial Production of Rain.

The question as to whether rain can be produced by artificial means is to be tested by the United States Government. On the motion of Senator C. B. Farwell, of Illinois, a clause was added to the Appropriation Bill, which provides that, under direction of the Forestry Division of the Department of Agriculture, \$2000 shall be expended in experiments having for their object the artificial production of rainfall by the explosion of dynamite. But Senator Farwell does not intend to limit himself to this small sum, and will, if necessary, contribute from his own pocket such sum as may be necessary to complete the trial to his satisfaction.

In a communication from Senator Farwell the following theories are advanced: "My theory in regard to producing rain by explosives is based partly upon the fact that after all the great battles fought during the century, heavy rainfalls have occurred. This is historical and undisputed. Senator Stanford, one of the builders of the Central Pacific Railway, informed me lately that he was compelled to do a great deal of blasting through a part of the country where rain had never been known to fall in any useful quantities, and where it has never rained since, and that during the period of the blasting, which was nearly a year, it rained every day. I feel almost convinced that rain can be produced in this way. The dynamite could be exploded on the ground or up in the air, and I think I would prefer the latter. The experiment should be made in eastern Iowa, Colorado, or in western Kansas, somewhere along the railway, and my own idea would be to commence early in the morning and explode continuously for seven or eight hours."

While this scheme does not give a very great promise of success, it would be interesting to see the experiment tried and even partial success would be of great value. If the farmers



of Colorado and western Kansas could get a shower once a week by sending up torpedoes every day, the result would be well worth the trouble, and there is plenty of reason to suppose that such artificial showers, by fostering the growth of vegetation, would in time produce the conditions which lead to regular natural showers, and the consequent permanent establishment of fertility throughout the region to which the process is to be applied.

## AGRICULTURAL NOTES.

### CALIFORNIA.

#### Butte.

**PALERMO'S OLIVE ACREAGE.**—Palermo *Progress*, Feb. 21: The acreage of olives at Palermo and vicinity will be very largely increased this year and still more so next year. The present acreage aggregates about 325 acres, and fully 350 acres will be planted this year.

**PLOWING BY STEAM.**—Gridley *Herald*, Feb. 19: On the Traynor ranch, west of town, a Best traction engine is being used for summer-fallowing. The engine is a 50-horse power one and is working successfully. It hauls three Bonanza gang-plows, 12 in all, at about two miles per hour. It averages nearly 25 acres a day. To do this work requires a little over two cords of wood, an engineer, fireman, plowman and water-banler. Thus equipped it costs about 75 cents an acre for plowing. As Mr. Traynor has a great deal of plowing to do yet this season, he will run the engine and plows night and day in a short time. He used it for harrowing last fall, hauling 44 feet of harrows at the rate of about three miles an hour. The days of the horse and plow are evidently drawing to a close in the Sacramento valley.

**FAMILY ORCHARDS.**—Herald, Feb. 19: The number of small orchards that are being set out in the vicinity of Gridley this season is very gratifying to those who have the future welfare of the country at heart. It shows that many of our people are at last awakening to the importance and necessity of at least a family orchard—the question of selling the surplus fruit being a consideration not generally thought of at present. Just why every farmer in this section has not on his place a well-selected, bearing orchard is simply the outgrowth of the peculiar conditions that surrounded him in the past, when all his energies were centered in wheat raising.

**FINE ORANGE GROVE.**—Oroville *Register*, Feb. 19: George Smith of Sacramento has one of the finest young orange groves yet planted in this part of the State. He has 30 acres set to different varieties of the orange on Wyman's Ravine, in one of the most sheltered and best protected spots in the whole region. His trees are planted too thickly, and he will this spring take enough from the 30-acre tract to plant out ten additional acres. He has the following varieties: 735 seedling trees, 980 Washington Navels, 290 Parson Browns, 280 Majorcas, 230 Nonpareils, 167 Beach No. 2 and 61 other trees, besides lemon trees. The trees are looking fine this winter and are doing as well as any in this section of the State.

**FINE HORSES FOR THE EAST.**—Chico *Enterprise*, Feb. 21: D. M. Keavis, the famous breeder of fine stock in this section, has some 60 or 70 head for the Eastern market. Last night the cars arrived for the horses, and next week they will be loaded up with the finest animals that ever left the northern portion of the State. The cars are of the finest description, made for the transportation of fine stock. We have seen it stated that it costs \$85 a head to ship horses in these cars to New York, and that does not include feed or attendance.

#### Fresno.

**PROFIT IN NECTARINES.**—Fresno *Expositor*, Feb. 18: James Conn, in Fresno colony, has received from \$200 to \$300 an acre from his trees; F. R. Storie, of Washington colony, has trees that netted him \$100 per acre; A. O. Bryan, of Oleander, and others have profited largely from this crop. The sudden popularity of this fruit in the East has stimulated the demand, which in turn will stimulate the supply. George Roeding of Fancher Creek says that the best varieties of nectarines are the new white nectarine, the Hardwicke, the Stenwicks and the Boston. The new white is a very fine variety and looks very handsome when dried. The nectarine comes into bearing three years from planting, and yields a good crop the fourth year. The fruit matures in July, a little earlier than the Early Crawford peach. They are very profitable, and the demand for them is excellent. They compare favorably with the peach for cooking purposes, and are very palatable when eaten dry. There is no local demand to amount to anything; nearly all the fruit goes East. It doesn't pay, either, to ship it green from localities where it can be dried. In the matter of drying fruit, Fresno county has the advantage of the northern counties. Up there they need to ship their fruit green or let it rot, as the dews prevent it from drying properly. Here we have climate and everything else in our favor. There is no locality in the State better adapted to growing the nectarine, and in fact most fruits, than Fresno county. A vineyardist will do well to put from five to ten acres, according to the size of his tract, in some paying variety of fruit.

#### Humboldt.

**INCREASED PLOWING.**—Eureka *Standard*, Feb. 19: A great deal of plowing has been done on Aroa bottom which will allow farmers

to take early advantage of planting and sowing in the spring. I have observed several acres of grain on different ranches on the bottom which was sown last fall and which is now in a very thrifty condition.

#### Inyo.

**NO MARKET FOR BEEVES.**—Independence *Independent*, Feb. 20: Farmers in different parts of the valley complain that they cannot find market for beef cattle. After feeding steers with alfalfa till they are in the finest condition for beef, they are forced to turn the animals out on the range, and thus lose all the fruits of the labor and expense of feeding. In many instances the same animals have been fed and turned out two years in succession.

#### Lake.

**LAKE COUNTY CROPS.**—Lower Lake *Bulletin*, Feb. 21: The recent rain has settled doubts that might have been entertained in regard to crops in this county. Our farmers are jubilant, and bappy indeed, we may say, for Lake county, that it never yet has suffered from a drought.

#### Napa.

**PLANTING IMPORTED VINES.**—St. Helena *Star*, Feb. 20: From the *Calistogian* we learn that during the present season 25,000 resistant vines will be planted on the Tubbs place above town. Next year 25,000 foreign vines will be planted there. These cuttings have been collected and purchased in Germany, France and Italy, by A. L. Tubbs.

#### San Bernardino.

**ALFALFA IN DEATH VALLEY.**—Chloride *Belt*: "Death Valley is a desert, but it is not as desolate a place as it is represented to be," remarked C. B. Zabrieke, Superintendent of the Pacific Borax Company, yesterday. "Our company has a rancho in the Valley, and about 100 acres in alfalfa. It is called the Furnace Creek Rancho, after the creek from which the water is taken. The water is conveyed a distance of seven miles in pipes, and the supply is just sufficient to irrigate the alfalfa. Last year eight crops were raised upon this land, good heavy ones, too. Do you know of any section where they can beat that?" The scribe admitted that he did not.

#### San Diego.

**CAJON FRUIT STATISTICS.**—S. D. *Union*, Feb. 19: President J. P. Jones of the new County Board of Horticultural Commissioners and F. H. Brooks, his deputy, have begun a thorough canvass of this district to see how much land is under cultivation and by whom. District No. 1 extends from the frontier to Encinitas, No. 2 from thereon to Vallecitos, and No. 3 from that place to the northern boundary. They have begun with Cajon valley, which includes Lakeside. The footings show that there are about 9000 acres in vines and fruits. In addition one man reports 50 acres in bay and another has 25,000 head of cabbage under cultivation. There are being 1271 acres more set out this season, as follows: Prunes 308, walnuts 150, oranges 725, lemons 15, vines 123 and olives 50. The total from 62 property-owners is: Vines—2717½ acres, with 2500 additional vines; oranges and lemons—5119 acres, and 5974 additional trees; mixed fruits—(apricot, peach, apple, pear, prune, walnut, orange and lemon) 341 acres, and 528 trees additional; pears—137½ acres, and 566 trees besides; prunes—125 acres, and 600 trees extra; olives—60 acres, and 450 more trees; peach—68½ acres, and 1115 trees extra; English walnut—10 acres; apricots—9½ acres; figs—9½ acres; guavae—six acres, and 600 more trees; plums—5½ acres; apples—four acres; Japanese persimmons—two acres; nectarines—one acre.

#### San Joaquin.

**FOX-HOUNDS TO PROTECT SHEEP.**—Stockton *Mail*, Feb. 19: R. R. Jenkins, a prominent sheep-raiser of Calaveras county, is in Stockton to-day on his way home with a brace of fox-hounds, which he obtained from a breeder in Santa Clara county to protect his sheep. He says the fox-hound will not herd sheep, but in his section coyotes are very troublesome and fox-hounds are death on coyotes. The latter pest killed 60 of his sheep last season. Some years ago he had a pack of fox-hounds, and they cleaned out the coyotes completely, and when everything was all right he neglected the dogs, and the enemies of the flock increased again. He thinks coyotes kill sheep sometimes just for the fun of the thing, or through pure devilment, as they will destroy in one night more than they could consume as food in three months. They invariably catch the sheep behind one of its ears and gnaw a hole into its neck so that it bleeds to death.

#### Santa Cruz.

**BEING CONVERTED INTO ORCHARDS.**—Watsonville *Pajaronian*, Feb. 19: The nurserymen of this valley estimate that fully one thousand acres have been planted in fruit trees this season in the Pajaro valley and neighboring hills. Higher estimates have been given, but the figures carefully compiled from nursery sales do not safely permit of a larger acreage than the above estimate. Apple have the call, and fully three-fourths of the new orchards are in apple, with the balance mainly in prunes. In the Corralitos district—including the Calabasas rancho, Hungry Hollow, and along the county road to Aptos—it is estimated that over 30,000 trees have been planted this season. On the Carlton and Casserly ranches fully 200 acres have been planted in orchard this season. The orchard bloom is on in Pajaro valley, and the cultivation of fruit promises more to the palus-

taking and intelligent farmer than any other branch of his calling. Apples and prunes are a staple fruit, and are always in demand. In no part of California do they attain a finer state of growth than in the Pajaro valley. This section is being rapidly converted into orchards, and before many years it will be the most noted part of the State for the excellence of its deciduous fruits.

**LARGE HOGS.**—Watsonville, Feb. 19: Three large hogs have been among the sights at the Moro Cojo ranch that have attracted the attention of every visitor. They were mammoths, and got so fat that it was impossible to add more to their weight. Last week they were killed, and they weighed 961, 842 and 810 pounds. Those weights are hard to beat.

#### Solano.

**GRAIN CROP ASSURED.**—Davisville *Cor. Dixon Tribune*, Feb. 18: The storm has reached us at last, and grain crops are now assured. Something over four inches have fallen, making a total for the season of about 13 inches. This in the olden times would have been insufficient to produce a crop, but now, thanks to improved methods of cultivation, it is ample. The acreage here is unusually large and grain is all looking well, with the exception of the late sown, which in some instances has failed to start, owing to dryness of the surface. Farmers predict a heavy yield this season.

**THE ALMOND.**—Tribune, Feb. 18: The farming community hereabout seem at last thoroughly awakened to the fact that fruit-culture is destined to be the industry of the future. This is evidenced by the large and rapidly increasing sales of fruit trees, many of them being made to men who have formerly openly expressed their opposition to the fruit business. Several varieties, such as the peach, pear, prune and apricot, are in brisk demand, but the almond is the favorite in this locality. W. R. Ferguson alone selling 30,000 during the present season. It has been found by careful experiment that no locality in the State has been more favored for the production of this nut than Northern Solano. In its rich soil, the trees mature earlier and live longer than anywhere else. The returns from this crop are found also to be larger than from any other, with the possible exception of the prune. A partial crop often nets the orchardist from \$300 to \$400 an acre. Little care needs to be exercised in getting the crop and very little work is necessary to prepare the nuts for market. They are not perishable and can be held for a rising market. On the creek lands the trees mature at from two to three years, and on the Silveyville ridge a little later.

#### Sonoma.

**A BRIGHT OUTLOOK.**—Healdsburg *Enterprise*, Feb. 21: The winter, which so far has been the most favorable one for years, insures an abundant grain crop, and if the cold weather of March is no more severe than in former years, all will be well for the fruit and grape men. Both of the Healdsburg canneries will run to their fullest capacity this year, and from present indications the price of fruit will be as good as it was last season. The wine market is not so favorable, but as the drying of wine grapes has proved reasonably successful, it is safe to say that the price of grapes will be as high as last year. It would be well if there had been no vines planted on our fine, fertile valley lands—land which will grow anything; and the day is not far distant when these vines will be taken up. The wheat crop will be large, and our flouring-mill will, no doubt, be reopened.

**TREE PRUNING.**—John Markley in Santa Rosa *Democrat*, Feb. 21: "The fruitmen are not pruning as savagely in my part of the county this season as formerly. In my opinion, successful pruning, or, in fact, any other department of horticulture, depends upon the intelligence of those in the business. A man would not break a draught colt and a trotting animal in the same way. Discrimination must be exercised in handling trees. This matter of labor is a great thing on the farm. Cherries sell for more than peaches in San Francisco, and it is all a matter of working the fingers and arms. A thousand more movements of the hand and arm are required in gathering the crop of a cherry tree than that of a peach or prune tree; and that is what makes the difference in the price. Prunes may be gathered by shaking the tree, and five feet difference any way makes no difference. But you can't shake the peaches, and therefore a few feet in height or width makes a difference in dollars and cents to the grower. All these things have to be taken into consideration. Judgment is the invariable rule to follow in cutting your trees. I think the time is coming when the growers will trim their fig trees. There is much complaint about the white figs not developing, and I think it is principally due to the fact that the soil in some parts of the county is not adapted to the cultivation of the fruit. But one thing should be learned. The most valuable product of the Adriatic fig tree is the second crop, and that is only borne on the wood of the same year's growth. The first crop amounts to little, and the fruit-growers must prune so as to encourage the annual growth of wood."

**POULTRY SHOW.**—Santa Rosa *Leaf*, Feb. 22: The management of the Sonoma County Poultry and Petaluma Stock Association announces that their first annual exhibition will be held in this city March 11th to 14th inclusive. The exhibition will be held in Willard's Pavilion. A competent judge of the poultry department and one of the pigeon show have been secured. We observe in our exobangas from the southern

part of the State that they design being well represented here. Every assistance possible should be extended to make this exhibition a shining success.

#### Tulare.

**A VALUABLE BUY FOR ORCHARDISTS.**—Hanford *Sentinel*, Feb. 19: The Tulare County Horticultural Board held a meeting last week. In view of the fact that the twice-stabbed lady-hug (*Chilocorus Bivulvnerus*) is cleaning up the trees of Lucerne township, the board decided that the orchardists in that territory who are known to have this bug at work on their trees need not spray this year. The bug may be identified by its jet black color and the blood-red spots, one on each shoulder. This benefactor to fruit-growers was brought to Tulare county from near the Mexican line about five years ago, and by the importation of the bug this county has saved many thousands of dollars. Other localities have been to great expense to cleanse their orchards from scale, while our lady-hug is doing the work here. The board appointed Mr. Motheral inspector for the county, and he will undertake to ascertain the needs of the orchardists and provide means for eradicating all pests that may be discovered.

**FARM AND ORCHARD NOTES.**—Porterville *Enterprise*, Feb. 20: Don Weber is in town on Saturday last from Daunt. He is setting out 500 Muscat grapevines and 300 deciduous fruit trees. J. M. Ferguson of Poplar is preparing to plant 12,000 Muscat raisin-grape vines. On Sunday last H. B. McDonald and O. O. Henry received 30,300 rooted Muscat raisin-grape vines from Fresno, which they will set out on their properties. Henry Hunsaker of Woodville and Deer Creek has just completed the sowing of 3400 acres of grain. John Heard of Lewis Creek is planting 400 eucalyptus trees on the outskirts of his property for shade purposes. On Monday last Jacob Renz of Frazier Valley sold 100 tons of hay to a Fresno dealer at \$12 per ton delivered. Murray Milmine has purchased 520 Bartlett pear and 520 French prune trees, which he will plant on his west side ranch. W. J. Prettyman is preparing ground for the reception of 1000 orange trees of the budded Malta blood variety. A. E. Redstone is preparing the ground for the reception of 15,000 Muscat raisin-grape vines and 1500 apple trees on his Poso Creek ranch. He will erect a patent evaporator for the purpose of curing his raisins. Otis Jerrald and Jim Bartley are setting out 40,000 raisin-grape cuttings for themselves and 60,000 for Will Putnam.

**TRANSFORMING THE COUNTRY.**—Porterville *Farm View*, Feb. 20: So many parties are putting in vines and trees all over the county that we could fill our columns with bare mention of them. Tracts varying from 2½ to 1000 acres are being planted to every kind of fruit trees, and new crops. The county is alive with new vineyard men, ditches, buildings and various improvements. In some portions of the county, old settlers who go off to attend to business a few weeks, get lost near home on returning, so bewildering are the changes in roads, fields and old landmarks.

**GOOD PRICE FOR A BLOODED COLT.**—Porterville, Feb. 20: On Wednesday last, Dr. W. S. Henrhan sold to John Cowing of Woodville his two-year-old bay colt Red Rose for \$1250. Red Rose is by the famous Bay Rose, dam Kit Douglas out of Lady Douglas, and is the finest colt ever brought to this county.

**GRAIN CROP PROSPECTS.**—Visalia *Times*, Feb. 20: The present season has been a peculiar one. The rainfall has been lighter than at any other time for years, yet the soil has been in good condition for plowing, and the surface soil wet enough to fall in the hands. Grain has made slow growth, owing to the cold weather, but has taken good root in the ground. Really the desire of the farmer has been more for warm weather than rain. The rain of Sunday, however, will do much good, and with a week or two of warm days and nights the grain will shoot up rapidly. The present prospects for a full crop are better to-day than they were at this time last year.

**PROFIT IN SHEEP.**—Porterville *Enterprise*, Feb. 20: From 2800 ewes, Henry Zimmerman has just raised 3900 lambs, or nearly 140 per cent. He sold the lambs for \$2 50 each.

**GOOD FLOW OF WATER FROM AN ARTESIAN WELL.**—Tipton, Feb. 18: F. W. Laughlin has just completed an artesian well on his place south of here. The well is 800 feet deep and flows an abundance of water to drown 160 acres. The land will be put in order for next year, when vineyards, orchard and alfalfa will be set out in good shape. Thus, one by one, our small farms are to be brought under a high state of cultivation, and when we consider the countless acres of fine land now lying idle soon to be made to blossom like the rose, we are led to form some conception of the mighty possibilities of this beautiful valley.

#### Yolo.

**CROPS IN YOLO COUNTY.**—Woodland *Mail*, Feb. 21: Our farmers and orchardists say that without a single exception, the grain all over the county is looking exceedingly well. All the winter-sown wheat is up and growing fine, and the summer-fallow has never looked better. The stand is excellent, the color good, and the acreage is much larger than it has been for several years. The orchardists are also happy, especially those who have been setting out young orchards and vineyards. They say that the rain could not have come at a more opportune time, and that with but a few showers interspersed along at intervals, all the trees will live and have an excellent stand.





SCENES IN THE NORTHERN PORTION OF THE SIXTH CONGRESSIONAL DISTRICT.

## San Joaquin Valley Oranges.

The Sixth Congressional District, the whole area of which is included in the territory covered by the Southern Citrus Fair to be held next week in Los Angeles, comprises that part of the State south of the northerly boundary of Fresno county. This makes the elevated valleys and foothills on the east side of Fresno,

Kern and Tulare counties a part of the district, and we trust, although it is late in the season, that there will be a showing of citrus fruits from that region at the Los Angeles Fair. There has been much planting of citrus fruit trees and older plantings are now bearing well. The engraving on this page shows a group of views in Porterville valley, on the east side of Tulare county, where much enterprise is now being manifested by the Pioneer Land Company and other land-owners. Among the evergreen

leaves and golden globes of the orange branch in the picture we see a cluster of various views. Above is a general view of Porterville valley, the level plain being divided in squares alternately planted with orange trees and vines, or yet showing open fields. In the background is seen the town of Porterville with its oaks and fig tree groves. Another view represents a street scene in Porterville with the schoolhouse in the background. The cottage in the vineyard belongs to one of the raisin growers; in

the foreground there are rows of raisin vines. To the right we see the flowing water, an irrigation canal shaded by groves of native oaks in the background.

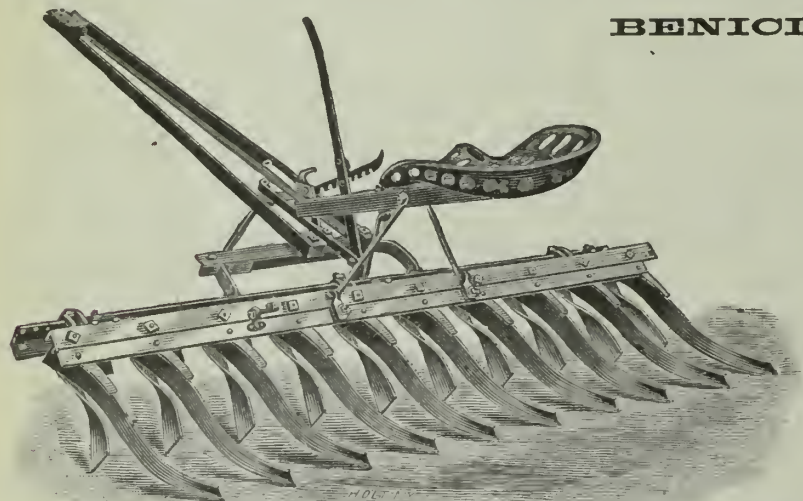
Scenes like these are to be seen in many parts of the State, where the enterprising land developer is bringing in water and dividing lands on which colonies and individual settlers are planting and building and contributing to the progress of the State and their own prosperity and comfort.

# BAKER & HAMILTON

San Francisco and Sacramento, Cal.

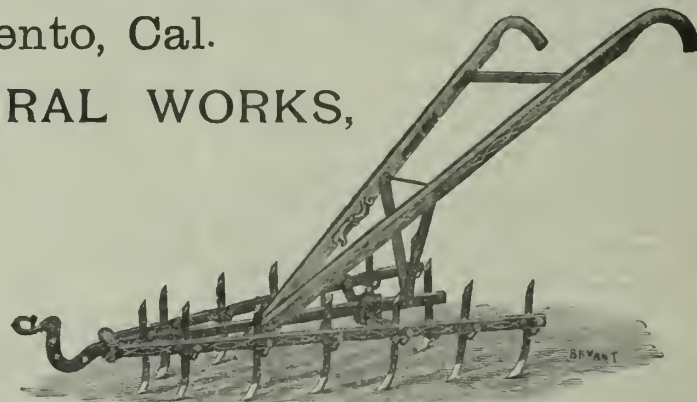
MANUFACTORY: BENICIA AGRICULTURAL WORKS,

BENICIA, CAL.

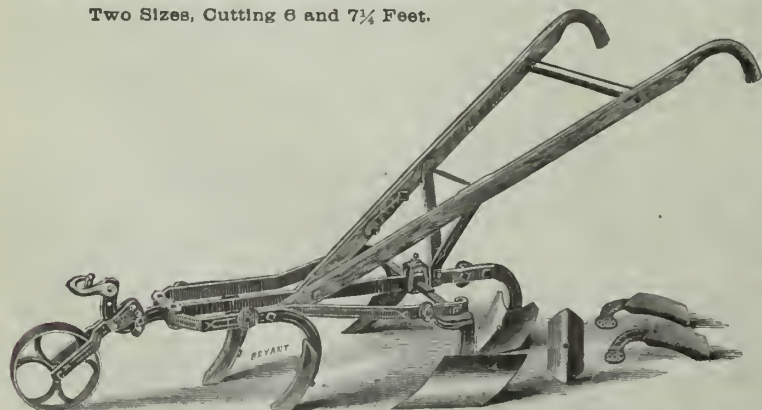


THE "ACME," AN A 1 ORCHARD AND VINEYARD HARROW.

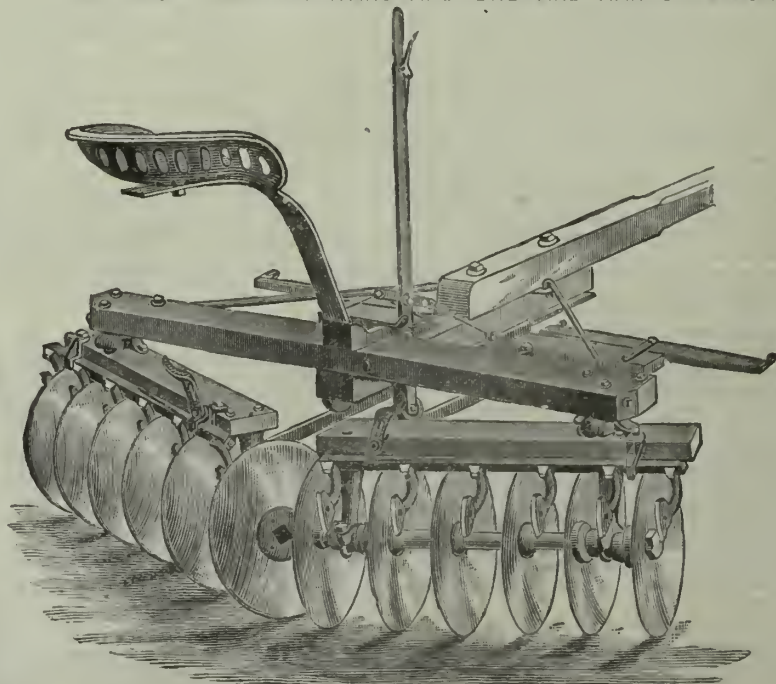
Two Sizes, Cutting 6 and 7 1/4 Feet.



THE BEST LIGHT VINEYARD AND ORCHARD HARROW MADE



50-TOOTH IRON AGE CULTIVATOR, WITH DETACHABLE HORSE HOE ATTACHMENT.



CLIMAX DISC HARROW.— SMALL SIZES FOR ORCHARD USE.

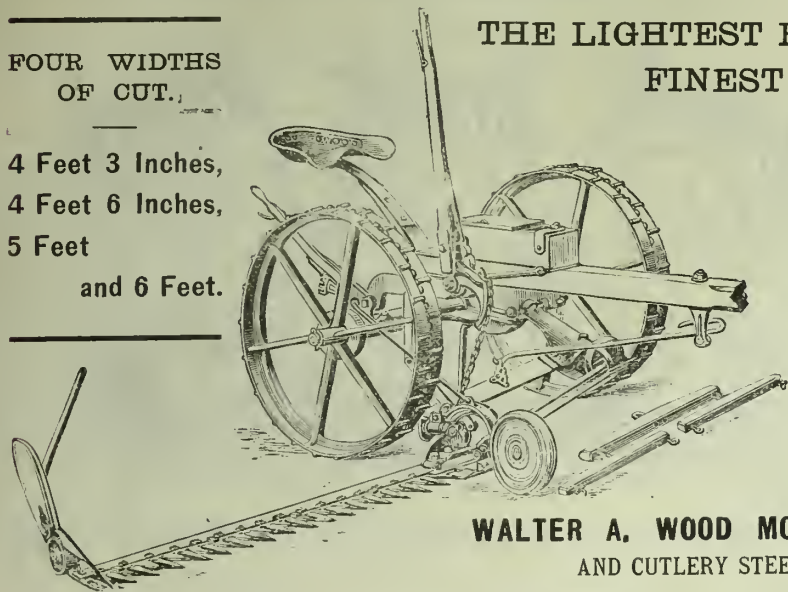


# WALTER A. WOOD ENCLOSED GEAR MOWERS AND RAKES.

The Best in the World and so Adjudged at All the Great World's Fairs and by Competitive Field Tests in Every Land.

FOUR WIDTHS  
OF CUT.

4 Feet 3 Inches,  
4 Feet 6 Inches,  
5 Feet  
and 6 Feet.



THE LIGHTEST RUNNING, BEST WORKING,  
FINEST CONSTRUCTED, EASIEST HANDLED,  
AND MOST DURABLE MOWERS MANUFACTURED.

THE NEW WALTER A. WOOD MOWER FRAME IS UNBREAKABLE

And the roughest usage cannot damage it. All bearings are of best COMPOSITION BRASS, exactly lined; their straining from position is impossible. Tilting Cutter Bar. Adjustable Pitman for taking up wear.

IT IS THE LIGHTEST DRAFT!

Because: The Draft is DIRECT from the Hames to the Cutting Line; the Bar, therefore, is drawn, not pushed; the Wheels are HIGH and of wide tread, obviating side draft and loss of power; the Gearing is the best piece of mechanism of its kind in use. It has been largely copied by other manufacturers and still leads them all. There are more reasons than these. Drop us a postal card and we will mail you circulars of the WOOD MACHINES, Handsomely Illustrated.

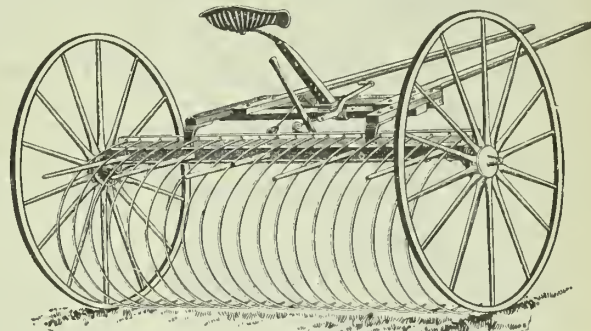
WALTER A. WOOD MOWER WITH TILTING BAR  
AND CUTLERY STEEL CUTTING APPARATUS.

"Beats Them All."

"SANTA YNEZ, CAL., Dec. 13, 1889.  
FRANK BROTHERS, San Francisco, Cal.—DEAR SIR: I have used most every kind of mowing machine and I think the Walter A. Wood BEATS THEM ALL. It runs lighter and has less side draft. I have run one Wood machine every season for the past four years, cutting in all about 1000 acres, and in the whole time it has not cost me 25 cents for repairs. I would gladly recommend the Walter A. Wood Machine to every one who wishes to get the worth of his money. Yours, WILLIAM EDDY."

"The Lightest Running."

"LIVERMORE, CAL., Dec. 6, 1889.  
"After trying to cut my crop last year with a good ——— and could not, on account of the squirrel grass and clover, I purchased a Walter A. Wood Mower of J. H. Dutcher and cut all my crops with it, also very difficult pieces of hay for others, and will say it is the lightest running Mower and least liable to get out of repair of any Mower I ever used or saw in use. [Signed] HENRY R. CRANE."



WALTER A. WOOD SULKY HAY RAKE.

8, 10 or 12 Feet Head.

Can be operated by any one who can drive. Is either Hand or Self-Dump and one or two horses may be used. The same careful construction has been applied in designing and building this Rake as in all the Wood Machines. SEND FOR CIRCULARS. ADDRESS

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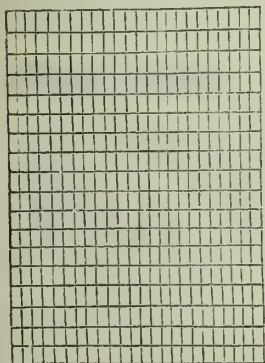
104 & 106 N. Los Angeles Street, - - LOS ANGELES, CAL.

FRANK BROTHERS,

33 & 35 Main Street, - - - - - SAN FRANCISCO, CAL.

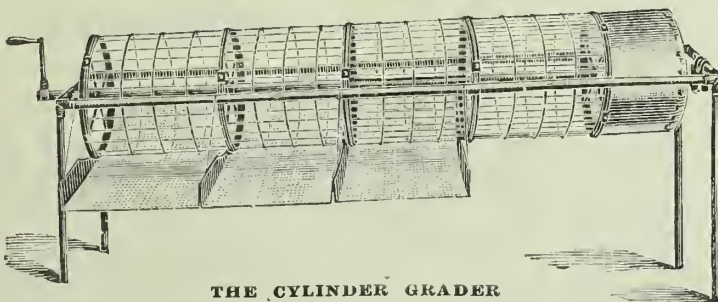
WALTER A. WOOD, President, 68 Front Street, PORTLAND, OREGON.

PRUNE SCREEN.



SPECIAL POINTER TO FRUIT GROWERS!

—For—  
Grading  
ORANGES,  
PRUNES,  
OLIVES,  
WALNUTS,  
PICKLES,  
ETC.



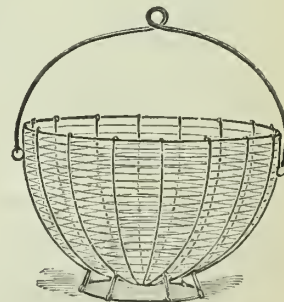
THE CYLINDER GRADER

Has proven the most rapid working machine that has ever been introduced. Its capacity is practically unlimited, as it will grade the fruit as fast as it can be fed into the machine.

SEND FOR CIRCULARS AND PRICES.

D. D. WASS, 141-143 FIRST STREET,  
SAN FRANCISCO, CAL.

DIPPING BASKET.



Will Grade  
Green or Dried  
Fruit  
Equally Well.

Five Ton  
Capacity Per  
Day,  
\$50.00.

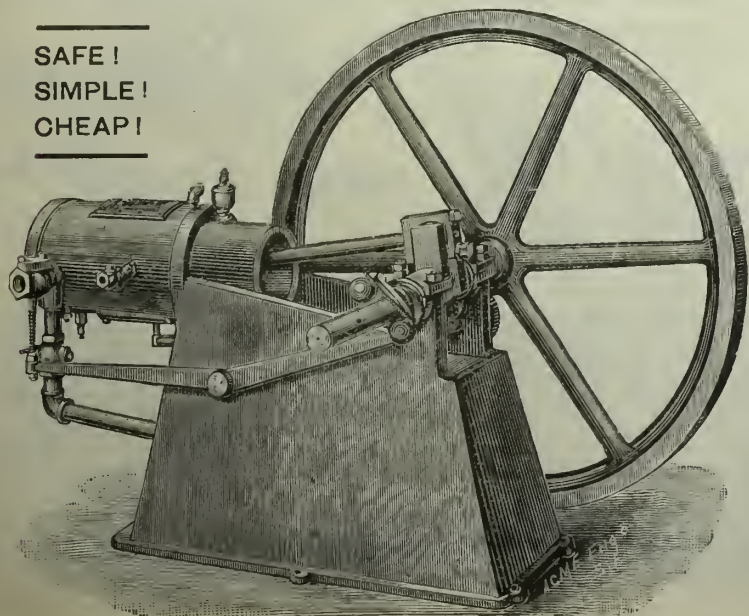
TUSTIN, Sept. 17th, 1890.

Mr. D. D. Wass, San Francisco.—Dear Sir: The Grader arrived the 3d inst., and I had no trouble in putting it up and operating it. It worked like a charm, and I could easily grade five tons of fruit a day. I have finished and shipped my crop. I wish you would now explain the attachments or screens for grading oranges. If they grade oranges as nicely as prunes, I want them. Please describe them and state the price. Yours, etc., J. H. CREW.

WIRE WORK OF ALL KINDS,  
Window Guards, Wrought Iron Fencing,

Bank, Store and Office Railing, Store and Window Fixtures, Ornamental Wire Work, Roof Cresting and Finials, Sieves, Riddles and Screens, Galvanized Dipping Baskets, and Prune Screens.

SAFE!  
SIMPLE!  
CHEAP!



REGAN VAPOR ENGINE.

NO BOILER. FIRE. EXPLOSION. STEAM,  
ASHES OR ENGINEER.

Started Instantly Without Even a Match. Will Run on Natural or Manufactured Gas or Gasoline. The Moment Engine Ceases to Run, all Expense Stops.

Upright and Horizontal, Stationary and Marine Engines from 3-4 Horse Power, Upward.

Our Engines are especially adapted for Pumping and Irrigating and Spraying Fruit Trees; in fact, for any use where power is required.

OVER 400 IN USE.

POPE & TALBOT, LUMBER, Office, 204 California Street. }  
SAN FRANCISCO, Feb. 25th, 1890.

REGAN VAPOR ENGINE Co.—Gentlemen: The 4 H. P. Vapor Engine I bought of you last May has been in constant use ever since, and has given me entire satisfaction. I have found the engine to be all that you claimed for it, and more too. You can use my name for reference if you so desire. I am, yours truly, H. TALBOT.

We Carry Thos. Kane & Co's Famous Racine Launches, fitted with our New Compound Engines.  
Send for Circular.

REGAN VAPOR ENGINE CO.,

221-223 First Street, San Francisco, Cal.



## The Citrus Fair Next Week.

## Prospects and Premiums.

The Southern Citrus Fair will open in Los Angeles on March 3d—next Tuesday. The Los Angeles Chamber of Commerce has just issued a bulletin of information about the coming citrus fair, from which the following extracts are taken:

San Bernardino county took the first premium for a county display last year, and enters the lists confident of the superior merit of its fruit. Over 1000 boxes of citrus product will be displayed by this county from four or five localities. Riverside, which took the first premium as a locality in 1890, has applied for plenty of space in which to present a fine general display and a number of personal exhibits. It has two different designs, each elaborate and beautiful, under discussion. Redlands, which last year secured the second locality premium, is at work with characteristic energy, and proposes to make it exciting for some of its competitors who have promised themselves the honor of crowding it out of line. Ontario took the third locality premium last year, and has reserved some of its finest fruit with which to make a display. Highland has a committee at work and will send a beautiful display. The last two sections have not yet decided upon any form of design. There are in San Bernardino county three other localities from which individual exhibits will come and where general displays may yet be arranged.

The second county premium was taken last year by Los Angeles. Fifteen different localities from this county will make a display this year, many of them with very handsome designs. For the county exhibit an enormous arch of oranges will be constructed across and over the entire front of the stage. The sum of \$400 has been appropriated by the Board of Supervisors for that purpose, and as much more will be obtained from other sources. This arch will not be entered in competition with other designs for the "artistic-merit" premium, but will be constructed for the sole purpose of contributing to the beauty of the display. The ladies of the annex to the Chamber of Commerce will build a miniature of the county courthouse at the back of the stage.

In Pomona the work has started with a cash subscription of \$1300. Duarte will send 300 boxes of choice fruit, and will occupy considerable space with a design symbolizing the name. This locality carried off several prizes last year. Pasadena will build a magnificent pyramid 30 feet high, using 150 boxes of oranges for its decoration. Glendora, Azusa and Covina join together in making a display for the upper San Gabriel valley. This district will send in about 300 boxes. Its design is Egyptian. Sierra Madre will construct a bas-relief of Wilson's peak and the observatory. Rivera will erect a tower of citrus fruit and walnuts. San Gabriel proposes to work out a design of the Old Mission building in oranges. Alhambra will build a Moorish castle on plans taken from the Alhambra of Granada. Whittier promises a unique display. Monrovia and Vernon each have ladies' committees hard at work upon a design. Santa Monica and Long Beach will send in exhibits to show how citrus fruit prospers near the coast. Artesia, Norwalk, Downey and San Fernando all expect to make displays.

San Diego county secured the third county premium last year, and claims both the fruit and workers to take it again at the coming fair.

National City will send also a fine display of olives and other semi-tropic products.

In Orange county the work is now well under way. An active committee of ladies has been appointed. Subscriptions have been obtained to cover contingent expenses, and at least 200 boxes of superior fruit will be sent in to make a display at the fair. A fine exhibit of walnuts and other Southern California products is expected from this section.

Fresno county will make an exhibit of raisins and dried fruits.

Santa Barbara county will send an exhibit of citrus fruit and orange wine, and in addition will make a beautiful display of plants, flowers and peculiar semi-tropic products. One-half of one side of the gallery will be occupied by this county with a carefully planned display.

In Ventura county committees have been appointed. A display of citrus and miscellaneous products is expected, as the county has plenty to show.

Special days for localities have been arranged as follows: Wednesday, March 4th, Ontario, Pomona, Spadra, Monte, Savanna, San Gabriel and Alhambra; Thursday, March 5th, Santa Barbara, Ventura, Newhall, San Fernando, Burbank, Glendale, Tropic and Redondo; Friday, March 6th, San Diego, Santa Monica, San Pedro and Long Beach; Saturday, March 7th, Riverside, Redlands, San Bernardino, Highlands, Beaumont and Banning; Monday, March 9th, Santa Ana, Orange, Tustin, Westminster and Anaheim; Tuesday, March 10th, Lodi, San Dimas, Glendora, Azusa, Covina, Pasadena, South Pasadena, Sierra Madre and Lamanda; Wednesday, March 11th, Downey, Whittier, Norwalk, Artesia, Park and Rivera. The railroad companies have made special reduced rates to Los Angeles from all points.

The fair will be formally opened Tuesday night by Governor Markham, who will be present with his staff, accompanied by several

State officers and a number of members of the Legislature. Word has been received from the Sacramento Board of Trade that a delegation from that body will visit the fair. Premiums at Southern California Citrus Fair.

Exhibit of citrus fruits from any county, first premium, \$400; second, \$200; third, \$100. In order to compete for the county premium, authority must be given some person or persons at a regular called meeting of fruit-growers to enter the exhibit and receive any premium awarded.

Exhibit of citrus fruits from any locality, first premium, \$150; second, \$100; third, \$50. Any city, township, school district or well-known town will be recognized as a locality. Organization to be formed as for county exhibit.

Exhibit of Washington navel oranges by an individual, first premium, \$75; second, \$50; third, \$25.

Exhibit of budded oranges other than Washington navel, by an individual, first premium, \$75; second, \$50; third, \$25.

Exhibit of seedling oranges by an individual, first premium, \$75; second, \$50; third, \$25.

Exhibit of budded lemons by an individual, first premium, \$80; second, \$60; third, \$40.

Specimens of Washington navel oranges, not less than one box (quality), first premium, \$20; second, \$10.

Variety of budded oranges, other than navels, not less than one box (quality), first premium, \$20; second, \$10.

Specimens of seedling oranges, not less than one box (quality), first premium, \$20; second, \$10.

Specimens of budded lemons, not less than one box (quality), first premium, \$20; second, \$10.

Variety of late-budded oranges, not less than one box, \$15.

Exhibit of Japanese variety oranges, not less than one box, first premium, \$10; second, \$5.

Exhibit of limes, \$10.

Exhibit of citrons, \$5.

Exhibit of shaddockes and pumelo, \$5.

Exhibit of raisins from any county, first premium, \$150; second, \$100.

Exhibit of raisins from any locality, first premium, \$75; second, \$50.

Exhibit of raisins by an individual, first premium, \$50; second, \$25.

Exhibit of five-pound box of raisins, first premium, \$10; second, \$5.

Exhibit of two and one-half-pound box of raisins, \$5.

Exhibit of dried figs, first premium, \$25; second, \$10.

Exhibit of pickled olives, first premium, \$20; second, \$10.

Exhibit of olive oil, first premium, \$20; second, \$10.

Exhibit of walnuts, first premium, \$40; second, \$20.

Exhibit of dates, \$5.

Exhibit of pomegranates, \$5.

Most artistic display of plants and flowers, first premium, \$30; second, \$20; third, \$15.

## NEWSPAPER AGENTS WANTED.

Extra inducements will be offered for a few active canvassers who will give their whole attention (for a while at least) to soliciting subscriptions and advertisements for this journal and other first-class popular newspapers. Apply soon, or address this office, giving address, age, experience and reference. Special inducements to old agents.

DEWEY & CO., Publishers,  
No. 220 Market St., S. F.

THE ATTENTION of our readers is called to the small Sharples Improved Separator. It is an exact counterpart of the larger machine, and does fully as good work, which is another word for saying it is perfection itself. The small machine is newly introduced to this coast, but has had trial enough to demonstrate its capacity. It will be useful in dairies of from 10 to 75 cows, and as it can be run with a small engine and is proportionately cheaper than its larger brother, the first outlay in putting in a plant is reduced about one-half. The machine is finely proportioned, well built and is very handsome. E. D. Sharples of 203 Fremont St., S. F., has the separator on exhibition.

## Complimentary Samples.

Persons receiving this paper marked are requested to examine its contents, terms of subscription, and give it their own patronage, and as far as practicable aid in circulating the journal, and making its value more widely known to others, and extending its influence in the cause it faithfully serves. Subscription, paid in advance, 5 mos, \$1; 10 mos., \$2; 15 mos., \$3. Extra copies mailed for 10 cents, if ordered soon enough. If already a subscriber, please show the paper to others.

## Don't Fail to Write.

Should this paper be received by any subscriber who does not want it, or beyond the time he intends to pay for it, let him not fail to write us direct to stop it. A postal card (costing one cent only) will suffice. We will not knowingly send the paper to any one who does not wish it, but if it is continued, through the failure of the subscriber to notify us to discontinue it, or some irresponsible party requested to stop it, we shall positively demand payment for the time it is sent. LOOK CAREFULLY AT THE LABEL ON YOUR PAPER.

ENGRAVING—SUPERIOR WOOD AND Metal Engraving, Electrotyping and Stereotyping one at the office of this paper.

## THE VERY BEST AND CHEAPEST FLOUR.



Guaranteed to all Customers to be Always Good.

THIS UNEQUALED FLOUR WAS AWARDED FOR HIGH QUALITY IN THE YEAR 1890

PRIZE MEDAL of California State Fair,  
DIPLOMA Napa and Solano Co. Fairs,  
PRIZE at Sonoma County Fair.

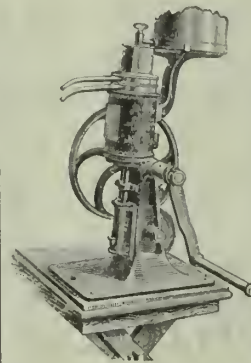
## The De Laval "Baby" Cream Separator

FOR HAND POWER

A Grand Machine for Small Dairies.

TURNS EASY, SIMPLE.

PRACTICAL FOR ALL WHO MILK.



Will extract all the Cream from 250 pounds of Sweet Milk per hour. Dairying no longer an uncertain drudgery, but PROFITABLE, EASY AND CERTAIN. The Baby De Laval is as perfect throughout as our Large Machines and proves a source of great profit to purchasers. Send for further information.

G. G. WICKSON & CO., General Pacific Coast Agents,  
3 & 5 FRONT STREET, SAN FRANCISCO.

346 N. MAIN ST., LOS ANGELES.

141 FRONT ST., PORTLAND.

## BREAKING DOWN

The prejudice against our plan, that is the cash plan, of doing business is fast giving way and many of the leading merchants of the country are adopting it. In fact, the stores through this State are now buying liberally of us, to their profit and our satisfaction. We offer many bargains at this time.

Ladies' Linen Collare, 12 to 14 1/2.....	50c	Carpet Warp, all colors.....	23, 25c
Ladies' Linen Cuffs, 7 and 7 1/2.....	5c	Wool Yarn, off colors, lb.....	65, 75c
Gents' Linen Collars, four-ply.....	10c	Men's Underwear, winter use.....	35, 40c
Dress Buttons, assorted, 12 doz.....	25c	Ladies' Underwear, winter use.....	40c up
Boys' Every-day Shirts.....	35 to 75c	Ladies' Stockings, sleeveless.....	10c up
Boys' Sunday Shirts.....	35 to 75c	Ladies' Stockings, all styles.....	80 up
Men's Every-day Shirts, Cotton.....	35 to 75c	Ladies' Gray Wool Hose, extra.....	25c
Men's Every-day Pants, long.....	75c up	Child's Gray Wool Hose.....	25 to 35c
Boys' Every-day Pants, long.....	50c	Boys' Winter Hats.....	45c up
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It is situated only 15 minutes walk from Auburn Station—the C. P. R. R. passes along one side—and is a less distance from the Court House. Thirty acres improved and planted to olives, set at long distances for permanent growth, and other fruits planted between the rows for temporary profits, mostly peaches of three best varieties, ripening in succession; pears, mostly Petite; plums of several varieties, as Kelsey, Japan, Shropshire Damson, etc.; figs of several best varieties; a few apples, nectarines, blackberries, etc. Two acres of table and raisin grapes, never irrigated, the vines remarkably vigorous and in full bearing. The trees, especially the 1500 olive, have all been planted with regard to permanency. About one-half of them have an orchard growth of seven years; fruited last year 300 pounds, this year nearly one ton. They are mostly Mission and Picholine, with a few trees of other choice varieties. Two crops of the olives have been pressed. The yield has been, for the first press, 14 per cent of very clear delicious table oil, and four per cent from the second press—the Picholine yielding this, of a peculiarly clear, nutty oil.

There is on the ranch a few acres of grain sown for hay; two acres of well-set alfalfa, below the Auburn ditch, which crosses one corner of the property; also a small house of four rooms and a kitchen; a well of good water; a small barn; a strong, permanent spring of soft, cold water, which wells up through the slate; a two-inch iron pipe connects the spring with an iron-bound 20,000 gallon tank, situated on a beautiful pine clad hill, 40 feet above the spring, a point which overlooks the town and gives very charming distant views, and is one of the most lovely sites for a residence to be found. The water is pumped to the tank by a duplex pump; the power, a four-horse steam engine, which furnishes power sufficient to pump, saw wood, run an olive crusher and do all needed shop work.

The land is all suited to fruit, excepting along a rocky ridge, which furnishes three very desirable residence sites, and the olive, set promiscuously, thrives finely among the rocks. The property can be conveniently divided along a sag which separates two of the high knobs, and water from the spring can be pumped to each of them.

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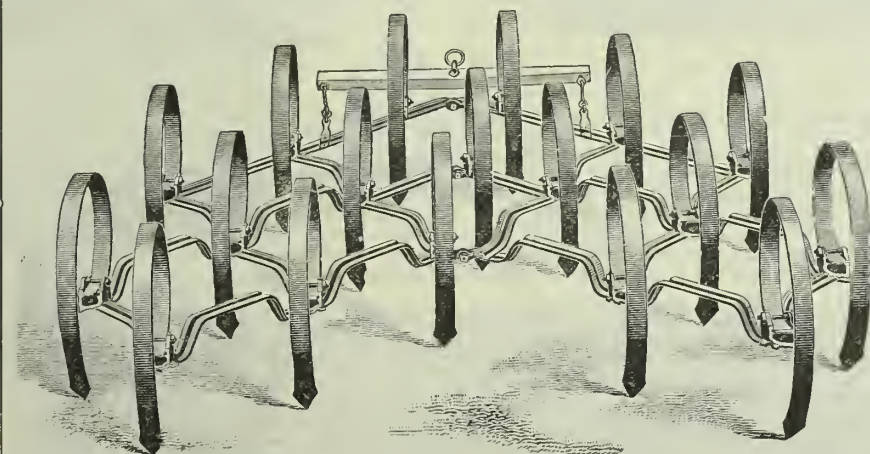
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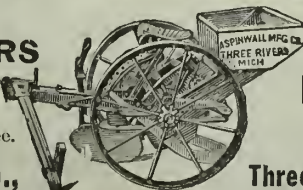
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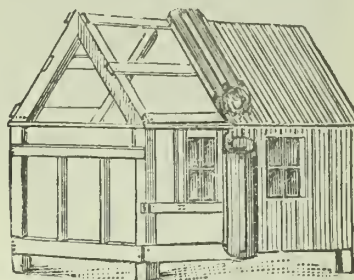
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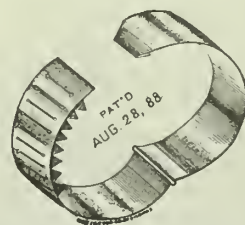
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## THE IRRIGATOR.

## Flowing Water in Southern California.

In spite of the grand achievements in irrigation in Southern California, the impression pre-

practical account. We have thought the same lesson might be enforced by views taken, not in the cultivated regions, but in the wild places where the water is not restrained in dams nor developed by human artifice, but the streams gush and flow fresh from the natural fountains. Southern California has vast valleys and mesas which are arid until the enterprise of man

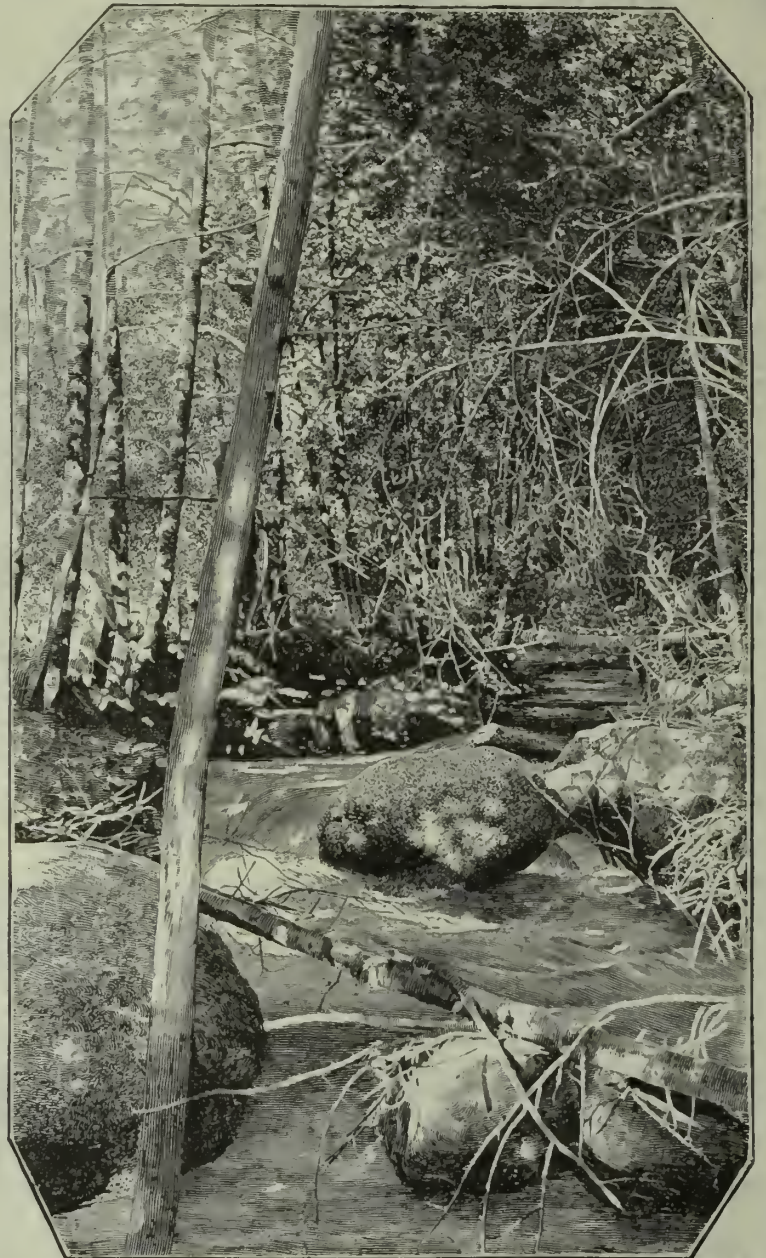
the colonies at the head of the San Bernardino valley, to Riverside and to other prosperous settlements farther along on its course to the sea. The views were taken in time of low water, for only at such times are these picturesque nooks accessible; but there are seasons in which the boulders which add so much to the picturequeness of the pictures are sub-

## The New Bear Valley Dam.

In our issue of Feb. 7th we gave views of the existing Bear Valley dam in San Bernardino county, and an account of the inception of the Bear Valley enterprise and the manner of its operation. Such has been the success



SCENE ON BEAR CREEK—THE LOWER FALLS.



VIEW ON THE UPPER SANTA ANA RIVER.

valls in some quarters that it is an arid region. Reports of the vast production of fruits and other crops, and the pictures like those we present elsewhere in this issue, of orchards and gardens which could thrive only with adequate soil moisture, should enforce the idea that the rich country has vast water supplies and that human enterprise and ingenuity are constantly bringing them to light and turning them to

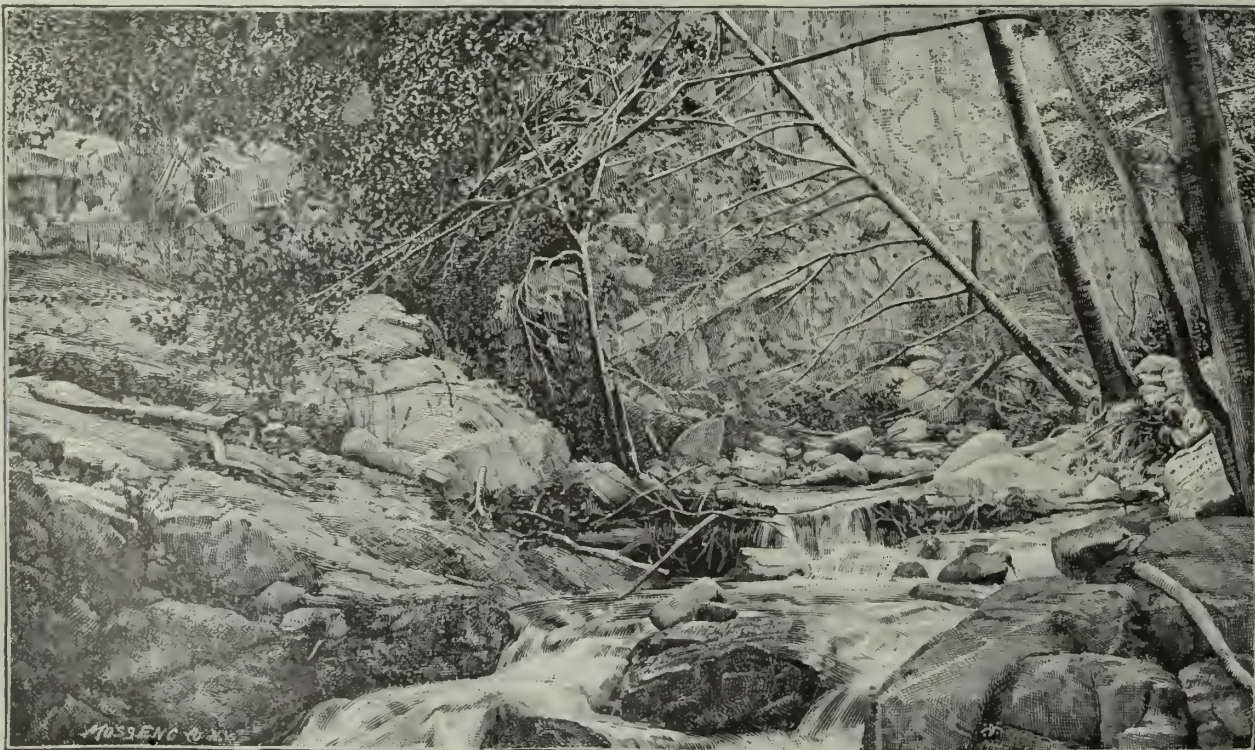
brings floods of vivifying water upon them, but she has also lofty mountains and deep canyons in which rainfall is large and consequently water supplies abundant. Such places as these are shown in the pretty views which we present herewith, and there are thousands like them in the southern counties. The views are all on the Santa Ana river and its tributaries, the priceless stream which has given the wealth to

merged in the raging torrents. The storage and utilization of such vast water supplies is one of the directions in which Southern California enterprise is rapidly proceeding, and this it is which insures a vast increase in irrigable area during the immediate future and a consequent development of the country of which present achievements, great as they are, are only a beginning.

of the existing arranging and distributing the stored waters in Bear Valley that it is now proposed to erect a new dam, which will impound a much vaster volume of water and render it possible to make fruitful a new and exceedingly well-situated tract of land known as the Alessandro tract, located in the north-western portion of the San Jacinto valley, and extending some twelve miles east and west, by three or four north and south. The west end of this tract is located five miles east of Riverside, and the east end of the tract is some seven miles north of Redlands. The entire tract comprises some 21,300 acres of the choicest fruit land in Southern California. Out of this entire acreage there is not to exceed 300 acres of land that is not arable. The greatest portion of this tract is on the slope of the foothills, sloping mostly to the south, and a portion of it sloping to the east, while a few hundred acres in the extreme west end of the tract is rolling. The average elevation is something like 1500 feet above the sea level, which is the same elevation to be found at Redlands, Crafton, Highlands and the upper portion of Ontario. Settlement and improvement has been in progress on this tract for some months, and a large amount of the land has been sold in anticipation of the bringing in of adequate water supplies imprisoned by the new Bear Valley dam.

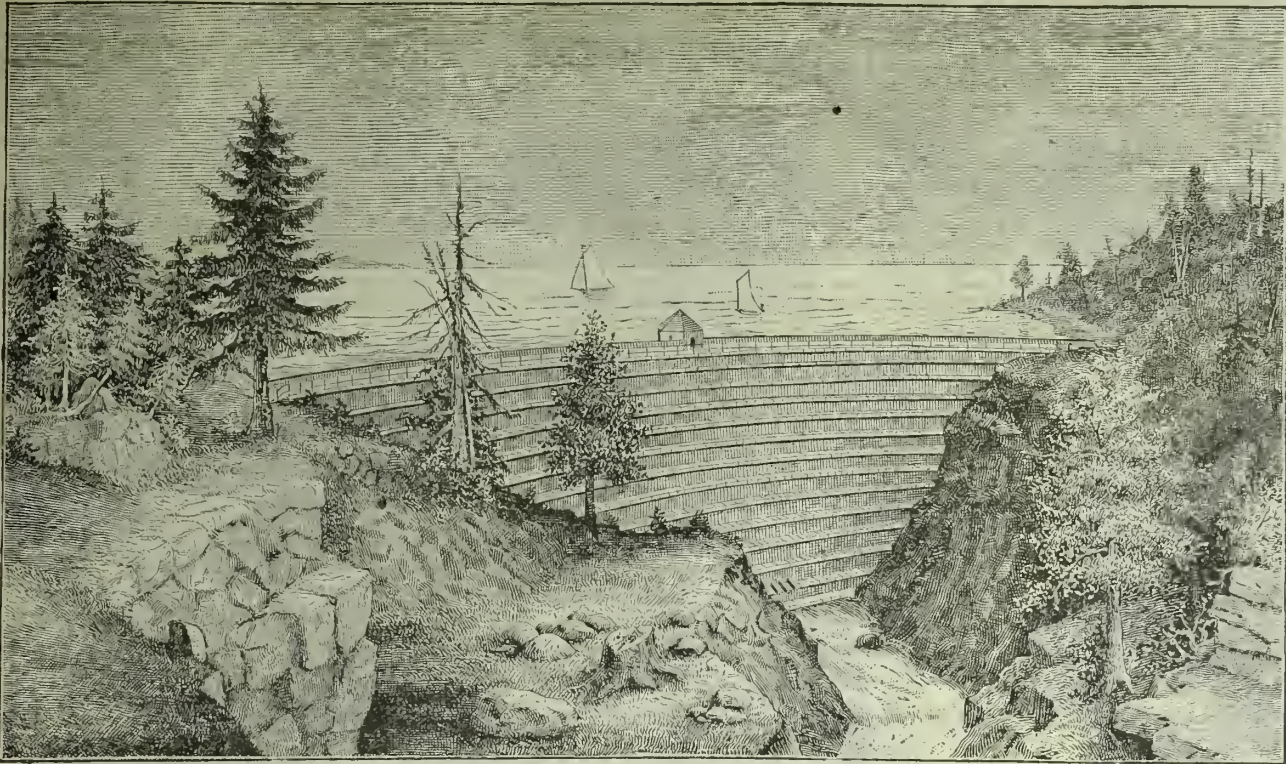
An engraving is also given herewith showing the proposed new Bear Valley dam, to be built about 100 yards below that we have described in order to enlarge the capacity of the original reservoir. The new dam is called a 120-foot one because it will raise the level of the water to 120 feet above the old datum plane, from which all the levels in the valley were taken. As the new dam will be built lower down the canyon, about 150 feet from the old one, it will start eight feet below the datum. This will make it 128 feet from bedrock to the water-line. Above the water-line will be a wave parapet 3 feet thick and 5 feet high; therefore the total height of the dam, exclusive of the foundations below the natural surface of the ground, will be 133 feet.

The old dam is 60 feet high from the bedrock, and was located on the best site available for a dam of that height, but above that level the sides of the canyon are not so steep at the



VIEW ON THE SANTA ANA RIVER, SAN BERNARDINO COUNTY.





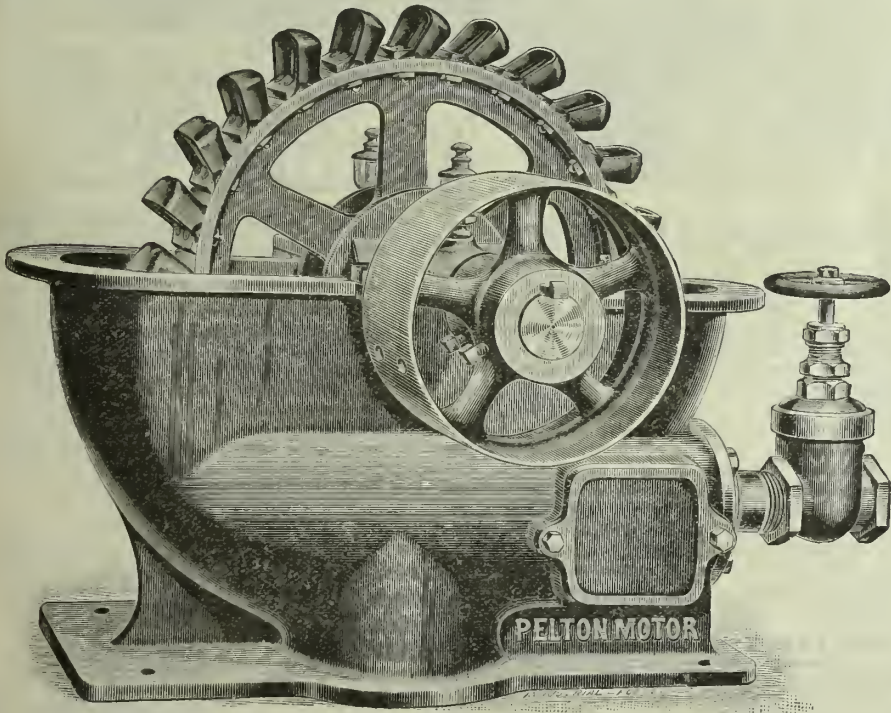
THE PROPOSED NEW BEAR VALLEY DAM IN SAN BERNARDINO COUNTY.

site of the old dam as they are a little farther down stream. Hence, it so happens that the new 120-foot dam can be built on a new site a little lower down and entirely independent of the old one, and still cost probably \$75,000 less than it would if an attempt were made to ntil-

lize the old dam by making it a part of the new one on the old site. The new dam will be 15 feet thick on top at the water-line, and will carry a heavy wall acting as a wave parapet on the upper edge, and a heavy iron railing on the lower edge, and be-

tween these there will be a wagon-road. The back of the dam, or the side next the water, will be vertical from top to bottom, and the face, or lower side, will be built in the form of steps or terraces. These steps will have a uniform raise of ten feet, and each one will have

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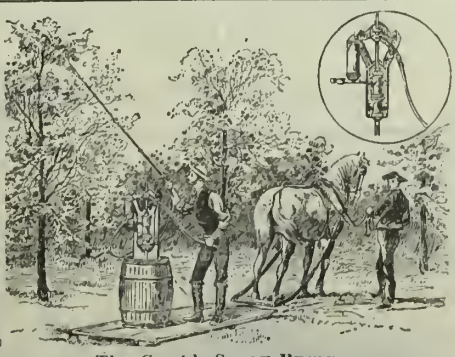
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an offset proportioned to the depth of the water above it, and just sufficient to prevent any tensile strains in the masonry when the reservoir is full of water.

The engineer's computations show the maximum strain in the whole structure when the reservoir is level full of water to be less than 12 tons per square foot. They also show that the average pressure on the whole base will be less than six tons per square foot, and that there will be no tensile strains in any part of the dam.

The dam will be 80 feet through at the bottom, and built of solid granite masonry laid in Portland cement mortar. It will be built on the solid rock; and the foundations will be on in steps, as shown in the engraving, so as to give the masonry the best possible hold on the rock and avoid any long continued seams in any direction.

The dam will be built in the form of a curve or horizontal arch, with the convex side upstream, as shown in the picture. It has been shown that the dam can be built on this site, with the curvature shown, with less material than it could if it were built straight or with any other curvature. The curved form will add greatly to the resisting power of the dam, especially during an earthquake. It is believed that when the dam is constructed as proposed, and the reservoir is full of water, it will be in a much better condition to safely resist a heavy earthquake shock than will any large building in California, and that it will be fully equal in security to any similar structure in the world.

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## HORTICULTURE.

## Raspberries at Santa Ana.

A. B. Ellis gives the *Blade* the following essay on raspberry-growing:

First, as to pruning. It is the season now when that ought to be done, although any time before the leaves appear will do.

I believe most writers recommend cutting back during the summer, and if properly done, it is, I suppose, a good plan. The results which I myself have obtained in this way do not warrant me to recommend the plan to the

As to varieties, the Souhegan or Taylor's Early is the only one I have fruited here. It is a sprawling grower, and I expect it to be superseded by some of the other varieties. It was the only Blackcap I could obtain at the nurseries here, two years ago. I sent East for the Gregg and Shaffer's Colossal. The Gregg is an upright grower, a large berry, covered with a bloom. It is of the best quality for table, and I believe it is conceded to be the best shipping raspberry yet introduced. I have great hopes for this berry here. My plants now look the finest of any I have ever seen anywhere, of their age. I will be glad to show them to visitors at any time, and I shall report occasionally how they are doing, through this

is, however, a rather soft berry, and hence not a good shipper.

As to setting, I prefer to set them in rows, five to eight feet apart, and three to four feet apart in the row, and give good, shallow cultivation.

## Two New Small Fruits.

We give herewith engravings of two small fruits of this year's introduction at the East, and now being distributed by J. T. Lovett of Little Silver, N. J.

Lovett's Early strawberry is a chance seedling (believed to have descended from the Crescent crossed with the Wilson) that was discov-

fect health and vigor until all berries have ripened. The berries color all over at once, never with a green tip; seldom ill-shaped and never cockscombed.

Lovett's Black Cap raspberry is a chance seedling originating in Jefferson Co., Indiana, where it has been fruited for several years by the side of Doolittle Improved, Gregg and other popular sorts, proving each season as early as Doolittle, as large as the Gregg, perfectly hardy, very firm and a good keeper, very sweet and of the finest flavor; the Gregg being winter-killed to a greater or less extent in adjacent rows each season. In the spring of 1889, the discoverer sent Mr. Lovett some plants for testing, and he was so favorably impressed with it from



new beginner. The trouble with this method with me has been that I checked the growth for a time and then induced a late growth that was not to be desired.

If the plants are cultivated sufficiently to keep down weeds and make a good growth of plants, there need be but little fear about canes upon which to grow the fruit. I prune according to the size of the cane, remembering that a cane of ordinarily good growth may be expected to hold a weight of four to six pounds of fruit and foliage, and also that fruit buds thrown out near the ground will produce double the fruit that they will over two feet from the ground, and that of a much better quality; and also that it is the buds near the ground that are most likely to remain dormant if long canes are left to be tied up to supports.

paper, not only the successes but the failures as well, for we can often learn as much by knowing what to avoid doing as by reading how some successful grower succeeds. A case in point to illustrate: When I was raising berries in Kansas I read that salt was a preventive measure for some insects; and when I set out plants the next time, I remembered this and applied salt quite freely to the plants. A word to the wise is sufficient—never apply salt directly to any weak plant. Salt is an excellent insecticide, but it is death to most plant life as well.

The Shaffer's Colossal is a rampant grower of brown-black color, and the largest berry I know of. It has a peculiar, sprightly acid flavor that made it sell for from two to five cents a box more than other varieties in the market where I have generally sold them. It

ered in Kentucky in 1885, near the place of origin of Chas. Downing, Kentucky and Downer's Prolific. Both in Kentucky and New Jersey the variety has been tested by the side of all the best varieties in cultivation, upon poor soil, and without fertilizers, and in every instance it has given results surpassing by far all others, responding to good soil and culture as generously as any variety we know. In earliness it is second only to Crystal City (that little extra early sort being but two or three days in advance of it) and in productiveness it exceeds all other varieties we have ever fruited; and succeeds everywhere, even upon poor, light land. Mr. Lovett does not claim for it mammoth size, but that it is above medium, averaging large and very uniform, holding its size to the close of the season better than other varieties—by reason of its foliage maintaining per-

their growth and what he had heard of it that he visited the plantation of the originator on June 16th of that year. Finding the canes covered with ripe fruit and so wonderfully fine in every way, he purchased the entire stock of plants and control of it. He has since tested the variety upon his own grounds, where it has proved even stronger growth than in Indiana, and fully as fine as at the place of its origin in all other respects. The Black Cap raspberry cuts no figure in the San Francisco market, but the canes fruit well in some parts of the State and delight the growers' tables if the market does not at present do much with them.

## ORANGE PLANTERS

Should read the advertisement of the Aloha Nurseries. The best varieties are offered at rates so low that no one need hesitate about planting for experiment, or for investment in places where the orange is known to thrive.

## Cheaper Than Windmills for Farmers!

Our Perfected "Safety" Engines Cost to Run only 1-8 Gallon of Gasoline per Horsepower per Hour.

No Boiler, Fire, Smoke, Steam, Ache or Heat. No Engineer, No License, No Danger. Single and Double Acting. 1/2 H.P. to 20-H.P.

GENTLEMEN—The 2-H. P. Engine received and set up yesterday. We attached it to part of the machinery in my shop, and it ran my Drill Press, a small Lathe, a large 24-inch by 14-foot Lathe, and a set of Emery Wheels, all of which it handled easily, to our great surprise.

Yours very respectfully,

SAN BERNARDINO, CAL., January 10, 1891.

J. B. HENDERSON.

GENTLEMEN—I am satisfied, after running for over a month my Bean Cleaner, etc., with the 4-H. P. Engine you sent me, that it is much the best Gas Engine I have seen. The electrodes are certainly superior to all others, also your safety rotary slide-valve, which is the personification of simplicity, positiveness and durability; I am satisfied it will develop much more power than we have need for. I also want a 3 or 1-H. P. for my wife and daughters to use about the house; we have a rotary clothes washer, can also do the churning, etc. I do not know of any better recommendation than to order a second engine.

Respectfully yours,

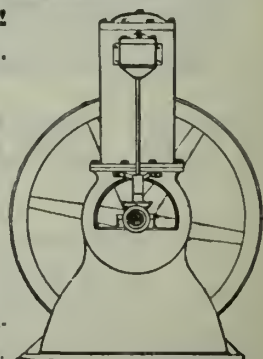
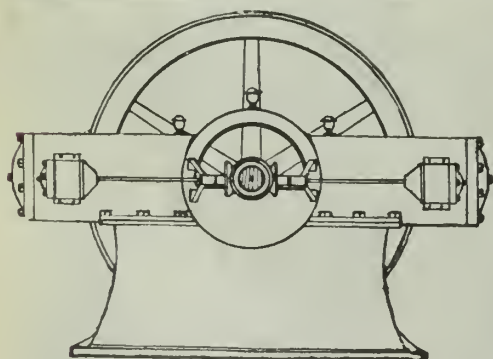
P. C. HIGGINS.

NOTE.—Both of these Engines were shipped to the parties named, and were set up by them solely by the diagram and printed directions we sent them.

Pumping Plants, Yachts & Launches, Street Cars, Fire Engines, Water Works, Etc.

**ELECTRIC VAPOR ENGINE CO.**  
218 California St., San Francisco.

Complete Plants of all kinds, Stationary or Mounted on Wheels. U. S. AND FOREIGN PATENTS.



## BEES AND HONEY.

Send to the Largest Bee-Hive Factory in the world for sample copy of **CLEANINGS IN BEE CULTURE** (a 1/2 illustrated semi-monthly), and a 44 pp. illus. Catalogue of **BEE KEEPERS' SUPPLIES**. Our **ABC of Bee Culture** is a cyclopaedia of 400 pp. and 300 cuts. Price \$1.25. Mention this paper. A. I. ROOT, Medina, O.

## C. L. HASKELL,

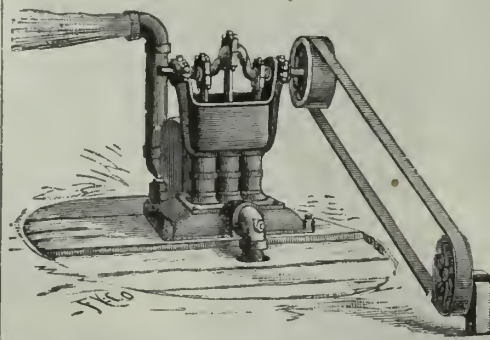
Wholesale and Retail Dealer in

HARNESS, SADDLES, BRIDLES, WHIPS, SPURS, BLANKETS,

No. 10 Bush Street, and Market Street, one door below Battery Street, San Francisco.

## TOKOLOGY

Complete LADIES GUIDE. Alice B. Stockham, M. D. The very best book for AGENTS. Sample pages free. Prepaid \$2.50. A. B. Stockham & Co., 157 La Salle St., Chicago.



## TRIPLE ACTING IRRIGATING PUMP.

It is very easy running and throws more water with the same power than any other pump—from 3000 to 50,000 gallons per hour, according to size of pump.

It is a **POWER PUMP** and can be run by steam, horse or any other power. Send for descriptive catalogue and price list.

## F. W. KROGH &amp; CO.,

51 BEALE ST., SAN FRANCISCO.

**DEWEY & CO.** { 220 MARKET ST., S. F. } Elevator, 12 Front.

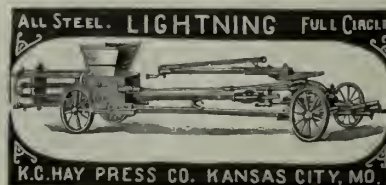
**PATENT AGENTS.**



## The Armstrong Automatic PORTABLE ENGINE AND BOILER.

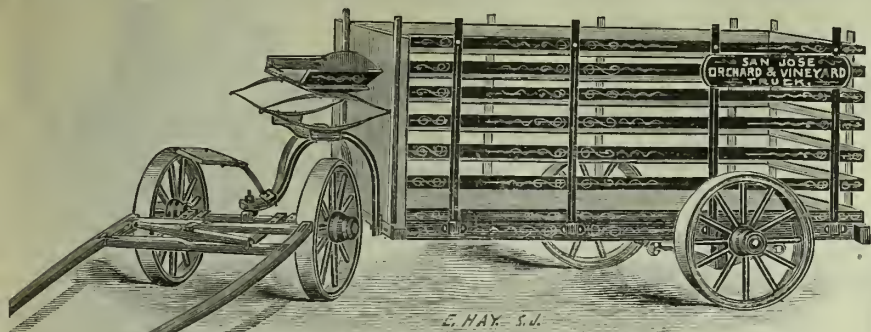
The Best, Lightest, Cheapest Engine in the world. Can be arranged to Burn Wood, Coal, Straw or Petroleum. 5 or 8 H.P. Mounted on skids or on wheels.

TRUMAN, HOOKER & CO., San Francisco.

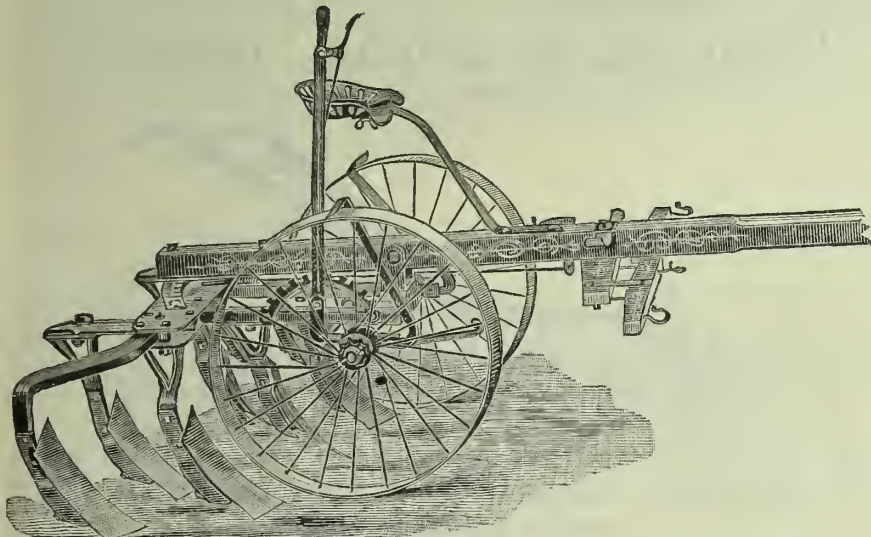




# THE SAN JOSE ORCHARD AND VINEYARD Truck and Cultivator.



Just the thing for the Orchard and Vineyard, built low, with Goose Neck in front enabling a very short turn, low wheels, broad tire, with springs or without, built any size or capacity.



Greatly Improved, made entirely of Iron and Steel, easily handled and adjusted; teeth extend outside of wheels, in fact the Most Perfect Cultivating Tool ever put on the market.

Write for Circulars. Address

SAN JOSE AGRICULTURAL WORKS, San Jose, Cal.

## ORCHARDISTS AND VINEYARDISTS

— IF YOU WANT TO —

SAVE TIME AND MONEY AND  
DO GOOD WORK

— PURCHASE THE —



## BILZ GANG AND SINGLE PLOWS.

The Gang Plow cuts 18 inches, and two horses will pull it as easily as a 12-inch Single Plow, and does better work. The Single Plow has no standard, and so is not liable to catch the vines or choke up in weeds; the beam fastens in a socket behind the moldboard and can be thrown to or from the land in a straight line.

By throwing the beam from the land, the plow can be put under the vine a foot and the beam will not touch the branches, and the singletree will not interfere.

The handles can be changed from one side to the other and raised and lowered to suit.

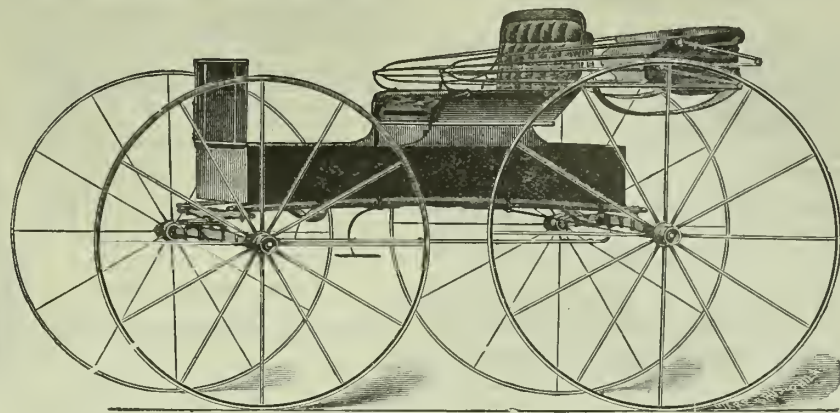
First Premium awarded both Plows at Mechanics' Fair, 1889, and at Fresno Fair, 1890. Address

J. A. BILZ, Pleasanton, Cal.

Manufacturer of the Best Road Cart and the Lightest Speeding Cart in the State.

AGENTS — TRUMAN, HOOKER & CO..... SAN FRANCISCO.  
E. WADE HITCHINGS..... FRESNO, CAL.

## CARRIAGES, BUGGIES & CARTS



## A NEW CARRIAGE HOUSE

Importer and Dealer in

ALL KINDS OF VEHICLES!

Sole Agency for the

RACINE CARRIAGES, BUGGIES AND SPRING WAGONS,

— AND —

Red, White and Blue Mowers.

— ALSO —

BONANZA, STAR AND SELF-DUMP HAY RAKES.

EXTRAS FOR SAME.

REPOSITORY, - - - 927 K STREET, SACRAMENTO, CAL.

Address T. A. LAUDER.

## THE ONLY TRUE FERTILIZER

Is the GENUINE Compound of the MEXICAN PHOSPHATE & SULPHUR COMPANY prepared from GUANO and rendered soluble by the application of acids.

This manure is an ENRICHER of the soil and not, like others, a STIMULANT only; It will do for the land what no other can in rendering it PRODUCTIVE without IMPOVERISHMENT.

Its analysis is reliable; its work is immediate and effective, and for results we point with confidence to the ORCHARDS of RIVERSIDE, where it has been liberally used for the past three years.

It can be prepared to suit any land, with or without potash, as occasion may require. It is rich in PHOSPHORIC ACID, and can be made as rich in NITROGEN as the most deficient soil may exact.

WE GUARANTEE ALL WE CLAIM FOR IT,

Viz.: TO BE THE MOST COMPLETE FERTILIZER ON THIS COAST.

For Sale In Lots to Suit by

H. M. NEWHALL & CO.,

AGENTS.

309 & 311 SANSOME STREET, SAN FRANCISCO, CAL.

N. B.—By courtesy of the Southern Pacific Company we have low rates on this Fertilizer to all parts of the State.

## GREAT REDUCTION!



IN ORDER TO CLOSE OUT OUR RETAIL CARRIAGE BUSINESS in San Francisco, we will sell our large stock on hand of first-class Carriages, Top Buggies, Phaetons, Four Spring Wagons, Carts and Harness at Cost. Now is the time if you want to buy a good carriage cheap. Salesrooms, 220 and 222 Mission St., San Francisco, Cal.

BRIGGS CARRIAGE CO., C. Crego Agent.



## THE VETERINARIAN.

## Effects of Food on Wool.

EDITORS PRESS:—I don't know if Dr. Buzard has had any experience with sheep; if he has, I would be pleased to have his opinion as to whether food affects the quality of wool.—O. W., *San Ardo*.

EDITORS PRESS:—The feeding of sheep has a marked influence on the quality and quantity of the wool. In this connection, the rules to be observed are:

1. To obtain wool of good quality and proper quantity, the sheep should be well fed. The increase of the wool in length and resistance comes to a stop if the animal be deprived of the amount of food necessary for it. Well-fed sheep pay for the increased expense by the weight of the fleece and the better quality of the wool. There is, however, an essential difference to be noted in long-wooled sheep. Too much and too rich food soon makes the wool of short-wooled sheep too long, an inconvenience which is not to be feared in long-wooled varieties.

2. When the sheep receives too little food, or when that food given in sufficient quantities is not sufficiently nutritive, the wool preserves its fineness and acquires a certain length, but its resistance falls; it is deprived of grease, which makes it weak, harsh to the touch and dry as flax.

3. Regularity in distribution of the food is of the highest importance, the wool soon showing the effects of this. That is what is seen when, in winter, the sheep are well fed with hay, grain, beans and oilcake (as is the case in England), and when these supplementary foods are too quickly taken away in the spring, the wool undergoes a time of stoppage. Later, continuing to grow under more favorable circumstances, the woolly hair is less resistant, and in a part of its extent covers a dead spot, a real scar, indicating the irregularity of growth.

4. Opinions differ as to the action of different foods on the wool. All, however, agree in attributing a marked effect to fertile pastures. The fleece is more abundant, the hair is longer and noticeable by its softness, whiteness, brightness and strength. Sturm lays down the rule that all foods which promote perspiration produce a finer wool; that is, those which include the most nutritive matters in the smallest compass. Two sheep of the same breed covered with the same wool, but differently treated, one being fed for fattening and the other in the usual way, show quite a different variety of wool from the first shearing. In the first place it will be longer, coarser, and will have lost its elasticity. This is more noticeable at the second and third shearing. The other sheep will have preserved all the original qualities of its fleece. The difference in the diet being continued up to the third generation, the offspring could not be recognized as coming from the same stock.

## Bovine Leucorrhœa.

EDITORS PRESS:—I have a very valuable cow that has the whites. Kindly advise me what to do through the medium of the Veterinary column.—SUBSCRIBER, *Livermore, Cal.*

EDITORS PRESS:—Leucorrhœa sometimes results from injury, but generally subsides rapidly and is represented by a chronic form of inflammation of the lining membrane of the vulva and vagina, which in some cases is ulcerated, in others simply thickened, and sometimes is the seat of scrofulous deposit. It may be more or less extremely diseased. The discharge varies in amount and in consistence, also in constancy of flow. It may be quite white and profuse or purulent or sanguineous; also the constitution is variably affected. There may be considerable fever or scarcely any. Generally the patient exhibits constant sexual desire but seldom becomes pregnant, and if she does is liable to abort. There usually are the general signs of nutritiveness.

The causes are gonorrhœa of the bull, debility and scrofulous diathesis. Treatment consists of tonics, nutritious diet, avoidance of sexual intercourse and stimulant astringent applications after thoroughly cleansing. In cases of ulceration, the application of nitrate of silver. These cases sometimes prove very obstinate. A crupous form of vaginitis has been described.

A. E. BUZARD,  
11 Seventh St., S. F. Veterinary Surgeon.

Women who suffer from nervous and physical debility find great help in the use of Ayer's Sarsaparilla. It produces the rapid effect of a stimulant, without reaction—the result being a permanent increase of strength and vigor, both of mind and body.



### PROTECT YOUR TREES FROM SUNBURN, BORERS, RABBITS, ETC.,

By Using the

### Pacific Tree Protector.

Waterproof, Adjustable & Convenient.  
Saves Time, Trouble & Expense.

No. 1 Tarred Felt, Vermin and Waterproof, good for 3 yrs, 7x16, \$2.00 100.  
No. 2 Patent Insect-proof, Heavy, 7x16, \$1.50 per 100.

No. 3 Patent Insect-proof, Light, 7x16, \$1 per 100.  
Special Sizes made to order. Orders promptly filled by

THE PACIFIC ROLL PAPER CO.,  
30 and 32 First Street, San Francisco,  
Also headquarters for Fay's Patent Manila-Leather Roofing and Building Papers; Cheapest and Best in the Market. Send for Samples.

### FOR DYSPEPSIA, Ayer's Sarsaparilla

Is an effective remedy, as numerous testimonials conclusively prove. "For two years I was a constant sufferer from dyspepsia and liver complaint. I doctored a long time and the medicines prescribed, in nearly every case, only aggravated the disease. An apothecary advised me to use Ayer's Sarsaparilla. I did so, and was cured at a cost of \$5. Since that time it has been my family medicine, and sickness has become a stranger to our household. I believe it to be the best medicine on earth."—P. F. McNulty, Hackman, 23 Summer St., Lowell, Mass.

### FOR DEBILITY, Ayer's Sarsaparilla

Is a certain cure, when the complaint originates in impoverished blood. "I was a great sufferer from a low condition of the blood and general debility, becoming finally, so reduced that I was unfit for work. Nothing that I did for the complaint helped me so much as Ayer's Sarsaparilla, a few bottles of which restored me to health and strength. I take every opportunity to recommend this medicine in similar cases."—C. Evick, 14 E. Main St., Chillicothe, Ohio.

### FOR ERUPTIONS

And all disorders originating in impurity of the blood, such as boils, carbuncles, pimples, blotches, salt-rheum, scald-head, scrofulous sores, and the like, take only

### Ayer's Sarsaparilla

PREPARED BY

DR. J. C. AYER & CO., Lowell, Mass.

Price \$1; six bottles, \$5. Worth \$5 a bottle.

### HANSEN'S WORLD-RENOWNED DANISH BUTTER AND CHEESE



### COLOR.

HIGHLY CONCENTRATED.

STRICTLY PURE.

ALWAYS UNIFORM

STANDARD THROUGHOUT THE WORLD.

Prepared in the Purest Vegetable Oil.

Endorsed by the Highest Dairy Authorities

As the Purest and Best Color Known.

Leading S. F. Merchants are unable to detect the use of this color and our customers using it are credited with shipping to market the finest natural color brands.

BEING STRONGER, THEY ARE CHEAPER THAN OTHERS and impart a most powerful natural color.

In liquid form it is easy to apply, is always uniform and saves the trouble and expense of preparing one's own coloring. Sample bottle free to all who call.

—ALSO—

### HANSEN'S PREPARED RENNET EXTRACT.

Contains nothing artificial but is entirely

PURE EXTRACT OF CALF RENNET.

Uniform, Clean and Perfectly Preserved.

Much more reliable and economical than preparing rennet at the dairy and also cheapest in the end.

We also make a specialty of

BEST SELECTED BAVARIAN RENNETS.

Strictly fresh stock always on hand.

Write for circulars and prices.

G. G. WICKSON & CO.,

3 & 5 Front St., San Francisco.

346 N. Main St., Los Angeles.

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### UNION IRON WORKS,

SACRAMENTO, CAL.

### ROOT, NEILSON & CO.,

MANUFACTURERS OF

Steam Engines, Boilers,

AND ALL KINDS OF

MACHINERY FOR MINING PURPOSES.

Flouring Mills, Saw Mills and Quartz Mills Machinery constructed, fitted up and repaired.

Front St., bet. N & O Sts., Sacramento, Cal.



### THE KRIEBEL ENGINE

And Plain Vertical Boiler.

Mounted on a Combined Base.

A Very Cheap and Economical

Engine.

Made of the very best material.

2 & 3 HORSEPOWER.

Write for Prices.

TRUMAN, HOOKER & CO.,

SAN FRANCISCO.

## WHITELEY MOWERS.



MORE GOOD POINTS THAN ANY OTHER MOWER.

This is the Mowing Machine that cut the hoop poles, ax handles, wagon spokes and pick handles at the Sacramento and San Francisco fairs. If they are not for sale by your merchants, write us.

### Genuine Champion Repairs ALWAYS ON HAND.



HORSE HOE AND CULTIVATOR COMBINED, with Wheel, \$9.25.

GALE PLOWS, SOUTH BEND PLOWS, PUMPS AND CYLINDERS,  
BUGGIES AND SPRING WAGONS.

ALLISON, NEFF & CO.,  
55 AND 57 FIRST STREET, SAN FRANCISCO.

## ORANGELANDS.

We extend a cordial invitation to our Southern friends to visit the

### Palermo Colony, Butte Co., Cal.,

Where we have established within the past four years one of the most thriving and in every respect successful settlements of enterprising people on the Pacific Slope.

We invite inspection of the ORANGE GROVES and EXTENSIVE DECIDUOUS ORCHARDS there.

3500 Acres Sold!

2500 Acres Planted!

300 New Settlers!

PRETTY HOMES! MILES OF GRADED AVENUES! STORES!

CHURCHES, PUBLIC SCHOOLS, RAILROAD DEPOT,

TELEGRAPH STATION, POST OFFICE,

WELLS, FARGO EXPRESS,

And a Live Newspaper, the PALERMO PROGRESS.

Send for map and illustrated circular.

### McAFEE, BALDWIN & HAMMOND,

10 Montgomery St., San Francisco.



# THE "TRIUMPH."

## The Best Pulverizer in the World.

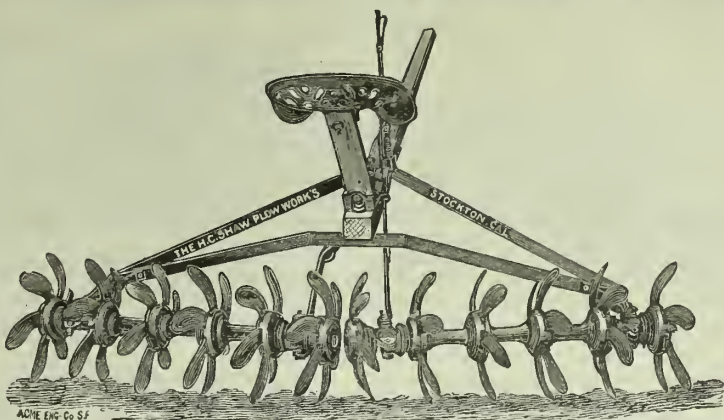
### ALL METAL SPADING HARROW.

HORTICULTURISTS AND FARMERS, TRY IT.

JUST THE THING  
— FOR WORKING —  
Summer Fallow Land.

FOR TWO HORSES. Works the soil about six feet wide. Angle of teeth adjustable to work the soil at desired depth. THIS HARROW is something entirely new. IT IS THE GRAND-EST ACHIEVEMENT of its inventor, C. LA DOW, who is the recognized authority on Harrows, there being but few leading harrows at the present time not built under his patents. We have made exclusive arrangements for its sale and it can be obtained only through us or our agents.

Considering the immense amount of labor done, the draft is very light, as the pulverized soil passes through the gangs of revolving cutters, being left smooth. THE GANGS are so arranged that the most uneven ground is thoroughly harrowed and left level. IT LEAVES NO FURROW or ridge; when the field is harrowed it is all left smooth. 10, 12 and 14-ft. sizes in stock. Send for circular.



Specially Adapted  
— FOR —  
ORCHARDS AND VINEYARDS.

THE NAME "SPADING" refers to its action on the soil. The action of each cutter is like that of a small spade, lifting and turning the soil from a depth of four to six inches, doing more perfect work than is possible with any other Harrow in the world.

THE BLADES are made from spring steel, in operation vibrating and shaking off sticky soil. IT NEEDS NO SCRAPERS to clean the revolving cutters.

#### TESTIMONIALS.

H. C. SHAW PLOW WORKS, Stockton, Cal.—DEAR SIR: Your Triumph Spading Harrow is all that is claimed for it. It is the most perfect pulverizer I ever used in my orchard and is not wearying or exhausting on the team. Yours truly,  
WILLIAM C. BLACKWOOD.

H. C. SHAW PLOW WORKS, Stockton, Cal.—DEAR SIR: The gentleman using the Triumph Spading Harrow has bought from you for him writes us as follows:

"That the Triumph Spading Harrow is in fact a triumph over all the harrows I have ever used. The first trial I made was on a 30-acre field sowed with barley; 15 acres were harrowed with the Triumph in one day as perfect as it is possible to be. The other 15 acres I harrowed with a common harrow and it took me three days, and then it was not in as good condition as that harrowed with the Triumph. The Triumph does splendid work and as a harrow I consider it worth three times as much as the ordinary harrow, as well in the field as in the orchard and vineyard. It is a perfect pulverizer and weeder.—C. STROEBEL, Eagle Home Farm, Searsville, Cal." Yours Truly,

H. C. SHAW PLOW WORKS, Stockton, Cal.—DEAR SIR: After using your Spading Harrow in all kinds of work, I will say it is the best pulverizer that I have ever seen. I used it to cultivate my orchard and vineyard, and it does not only cut up all weeds, but leaves the roots up to the sun, which is sure death to them. You may praise it as high as you like, as you cannot say anything it does not deserve. Yours respectfully,  
C. A. HAUL.

H. C. SHAW PLOW WORKS, Stockton, Cal.—DEAR SIR: Regarding the Triumph Spading Harrow would state that we are satisfied it is as light draft as any, and lighter than the average cultivator of its kind, and, as to its work, we think it cannot be beat. Yours truly,  
PIXLEY COMMERCIAL CO.,  
By L. E. SMITH, Secretary.

COLMENA ORANGE GROVE; Capital Stock, \$100,000; A. F. ABBOTT, Pres.; G. W. PEACOCK, Treas.; E. P. McDANIEL, Sec. MARYSVILLE, Yuba Co., Cal., Jan 20, 1891

MESSRS. H. C. SHAW PLOW WORKS, Stockton, Cal.—GENTLEMEN: Enclosed find check for payment of your bill for Spading Harrow sold to me by Mr. Hill. I shall take pleasure in recommending it to my friends, and think the Triumph will have a large sale in this locality. I am pleased to say to you that the machine is a most excellent one for cultivating the ground and pulverizing it in good shape. For an all-round useful machine, I feel sure any one buying it will appreciate its value. Yours truly,  
A. F. ABBOTT.

CHAMBERS OF THE JUDGE OF THE SUPERIOR COURT, JOHN C. GRAY, JUDGE. }  
OROVILLE, BUTTE Co., CAL., Jan 17, 1891. }

H. C. SHAW, Esq., Stockton, Cal.—DEAR SIR: I purchased from your Agent, Mr. Hill, one six-foot Triumph Spading Harrow, and sent the same out to my olive farm to try. My foreman declares that it will do the work of four plow teams, and requests me to get another to put into the field by the first of March. He is highly delighted with it and calls it the greatest improvement in farm machinery he has yet seen. Instead of putting a number of teams into the field to plow and then harrow the ground, I shall go over it with the Spading Harrow twice and the work will be more thoroughly done, and at one-third of the expense. This is one of the most complete pieces of farming machinery that I have yet seen, and I cheerfully recommend it to those, who, like me, want the most and best work done for the money. It gives entire satisfaction. Yours truly,  
JOHN C. GRAY.

SANTA ANA, CAL., Jan. 16, 1891.  
H. C. SHAW PLOW WORKS, Stockton, Cal.—DEAR SIR: The man using the Triumph Spading Harrow we bought of you, writes us as follows: "The Spading Harrow is all that could be wished. In orchard work it can be run nearer to the trees than any other kind, and does away with hand hoeing to finish with. I have also used it to harrow new soil, and it is first-class for that. It takes nine days only with one span of horses to harrow my orchard of over 100 acres, and does it better than with any other cultivator I have ever seen.—DWIGHT WHITING, El Toro, Cal." Yours truly,  
NICHOLS & ULM, Santa Ana, Cal.

H. C. SHAW PLOW WORKS, Stockton, Cal.

# CALIFORNIA'S TRIUMPH!

A COMBINED HARVESTER  
— FOR —  
Horse Power or Traction Engine.

AWARDED FIRST PREMIUM  
— AT —  
California State Fair, 1890.



# Daniel Best's New Steam Harvester.

SHOWN AS AT WORK IN THE FIELD.

Improved for season of 1891 with all latest improvements, including Best's Peerless Grain Cleaner.

All sizes made to order, from 14 to 40 feet.

As a Steam Traction Harvester, Straw, Wood or Coal can be used for fuel.

These Steam and Horse Power Combined Harvesters were run successfully all last harvest, giving entire satisfaction in all ways in grain in every condition.

SEND FOR NEW CIRCULAR. For further information, prices, etc., address

DANIEL BEST, San Leandro, Cal.



## DOMESTIC ECONOMY

**FLANNEL CAKES.**—Two eggs beaten light, one pint of milk, salt to taste, two teaspoonfuls of yeast powder and flour enough for a batter. Serve hot in round cakes with maple syrup.

**SNOW ICE-CREAM.**—Beat well together one cup clear sweet cream, one cup sugar and one fresh egg; set in snow until cold, then stir in light snow until thick. Put in the flavoring before the snow is added.

**APPLE CUSTARD.**—Pare and grate two large, tart apples; add four tablespoonfuls melted butter, eight of sugar, juice and grated rind of one lemon, yolks and whites of six eggs, separately beaten. Line dish with puff paste and bake like custard.

**LYONNAISE POTATOES.**—Cut some cold boiled potatoes into small square blocks; shred half an onion finely; drop potatoes and onion into hollering lard and fry a light brown; drain on paper in a very hot dish. Dust with powdered parsley before serving.

**GINGER APPLES.**—Boil in 1½ pints of water one-half ounce nicely cleaned ginger root, then add two pounds of sugar and let boil five minutes more. Add two pounds of apples, pared, cored and quartered. Cook until clear, skim out, boil down the syrup and pour it over.

**CREAMED PARSNIPS.**—Boil and peel parsnips; cut them in slices, and after spreading each slice with butter, lay in a vegetable dish and pour over them a white sauce made of a cup of boiling milk cooked until thick with two spoonfuls of flour and one of butter; pepper and salt to taste.

**CRANBERRY SAUCE.**—Put one quart of cranberries and one pint of boiling water into a granite kettle. Boil the berries rapidly for five minutes. Press them through a colander and return them to the kettle. Add to them one pound of sugar, bring to boiling point, and turn out to cool.

**LEMON JELLY.**—Soak one hour, in a pint of cold water, one box of gelatine; take the juice of five lemons, the rind of one and one pound of sugar; mix these together, turn on a quart of boiling water; strain through a cloth, set in a mold to congeal. Put it in a cold place, let it stand over night.

**APPLE AND TAPIOCA PUDDING.**—To a teacupful of tapioca use a quart of boiling water; let stand awhile and soften; sweeten a little, add a lump of butter the size of a walnut, then slice in tart apples, sufficient to make a layer over the top. Bake until the apples are tender. Eat with sweetened cream.

**FRUIT CAKE.**—Raisins and spices to taste, one cup molasses, one cup brown sugar, one cup shortening, two eggs, two teaspoonfuls soda, three cups flour, two cups dried apples (not soaked). Beat all together and stir in raisins and spices to suit. Soak the apples over night. In the morning, put in the molasses and sugar, boiling down quite thick.

**ROLY POLY PUDDING.**—Make a rich suet crust, roll rather thin, spread jam (or any kind of fruit), leaving a margin of paste where the pudding joins, roll it round, tie in a cloth that has been sprinkled with flour, drop in boiling water, keep cooking two hours, take off the cloth, lay on a flat dish, and serve while hot with lemon sauce.

**SWEET POTATO CROQUETTES.**—Boil six large sweet potatoes until they are just tender, then remove the skins and mash the potatoes through a colander or a vegetable press, add a tablespoonful of butter, a teaspoonful of salt, a dash of pepper and a tablespoonful of sugar. Mix thoroughly, form into croquettes, dip first in egg and then in breadcrumbs and fry in smoking-hot fat.

**CHEESE SANDWICHES.**—One-fourth pound of crumbled cheese, the yolk of a hard-boiled egg, a tablespoonful of melted butter, half teaspoonful of salt, a dash of pepper, half teaspoonful of made mustard, a tablespoonful of milk, and thin slices of bread or biscuits, lightly but evenly buttered. Put the hard yolk in a small bowl, make smooth with a spoon, add the butter, cheese and seasoning, mixing well, and eatly the milk.

**CELERY ON TOAST.**—If not used in soup, celery may be creamed and served on toast. The following recipe is well worth trying: Cut the stalks of celery into inch pieces, cover them with milk and let them boil until tender. Season to taste with salt and pepper, and liberally with butter, pour over squares of hot toast and serve at once. The milk may be omitted and the vegetable stewed in water till tender, seasoned to taste with salt, pepper and butter. In this recipe it is not to be served on toast. A pinch of soda should be added while it is cooking.

**SALT FISH CHOWDER.**—Shred up a pint bowl full of salt fish and let it soak in cold water about two hours. Fry a few slices of fat salt pork the same as for clam chowder and put in the bottom of your kettle, then about three pints of sliced potatoes, three sliced onions and one pint of breadcrumbs, sprinkle with half teaspoonful of black pepper and add hot water enough to cover; boil until the potatoes are soft, then add one pint of milk and let it boil up once, and it is ready to serve. If the fish and pork do not make it salt enough, season to your taste.

## Stockton Notes.

The various manufacturing plants in the city of Stockton are crowded with various lines of work, principally on combined harvesters, traction engines and street railway cars. A Rural representative made a flying visit to and personal inspection last week of the principal manufacturing plants.

The Stockton Combined Harvester and Agricultural Works had 20 street railway cars on the way, four or five of which had the finishing touch of the painter's brush. Those that were completed presented a very fine appearance, and were destined to run in various cities from Puget Sound to San Diego. Several of the celebrated Miller's Lightning Hay Presses were ready for use, while the combined harvesters engaged the attention of a large force of men. Mr. M. Laufenburg was engaged on traction engines, and making improvements for the harvesters.

The Matteson & Williamson Mfg Co. had a very fine-looking traction engine nearly completed, and a large force of men at work on their harvester "Harvest Queen." Mr. Williamson had just completed a cultivator that cuts eight feet wide, and on a practical test has proven very satisfactory.

At the Haines, Houser & Knight works, the Haines Houser Combined Harvester was being pushed ahead, while Mr. Sherwood, better known as Budd Sherwood, had just completed a very large traction engine for Guaymas, Mexico. In the front yard there was an engine weighing eighteen tons, built in England, which had been materially changed, and as Mr. Sherwood expressed it, "he thought he would make it work."

The Stockton Wheel Co., owned by Holt Bros., are building street railway cars by the score, and their linked Combined Harvester will be ready in large numbers for the coming harvest.

The H. C. Shaw Plow Works have just finished a large shop and equipped it with a Regan gas engine, for the purpose of carrying on their immense plow business and adjuncts belonging to their manufacturing department. This firm has had phenomenal success with their spading harrow. In less than a year they have sold over 600, and during the time your reporter was in Stockton a carload, which consisted of 90, had just arrived, and immediately thereafter a dispatch was forwarded for an additional carload.

The new grist mill near the railroad was completed and running, and the immense gristmill that was being built upon the banks of the slough was up two stories high.

Mr. R. F. Wilson, manufacturer of the Improved Davis windmill, has built a large factory near where his old one stood and is preparing to put in a gas engine for power.

One noticeable feature of Stockton is the large and artistic business houses and dwellings that are being erected. During the last year Mr. W. R. Richards laid out an addition to Stockton known as the Fair Oaks tract. He charged very moderate prices for his lots and the trend of settlement is in that direction. Being an extension of Main street, and having a new car line running through the entire tract, it is fast outstripping in growth any other residence portion of the city of Stockton. It seems to be a settled fact that the city of Stockton is destined to be the greatest manufacturing center of our State.

About one-third of the dwelling-houses are furnished fuel from natural gas, and as Capt. J. W. Smith informed our reporter, he had not used any fuel other than natural gas for heating or culinary purposes during the last 15 months.

It is food for thought, and something of a matter for State pride, when we can safely assert that there is no place in the world to-day that manufactures as high a class of labor-saving machinery for agricultural purposes as in the city of Stockton.

Mr. D. C. Clowes was busy sending out lots of fruit trees, and was feeling disappointed to a considerable extent from the fact that he could not get fruit trees enough to supply the demand.

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## Sacramento Notes.

Our reporter was at Sacramento last week, and while there visited the great manufacturing establishment of J. F. Hill. He had a full force of men at work, and orders for the Lightning Miller Hay Press, of which he had already sold four this season, were coming in at a satisfactory rate; also, for the heavy truck wagons that would carry ten tons, for hauling with traction engines. On that day he received an order for four to be shipped to Guaymas, Mexico.

Mr. T. F. Lauder has a splendid stock of carriages, wagons, hay rakes, etc., and is doing a fine business, although his repository has only been open about eight months.

The great agricultural firm of Stanton, Thompson & Co. have had a fine season in supplying agricultural implements. The Haines Gang Plows, which he introduced last season, have become very popular, and the only trouble he has had was in getting stock enough to supply the demand.

Mr. E. W. Melvin, importer of and dealer in the Becker Washers, has opened up a fine trade this spring in this line of goods. Mr. Melvin's art rooms on K street have been well patronized with orders for enlarged pictures from photos, tints, etc.

Altogether, the dealers and manufacturers of the Capital City are feeling the impetus given by our bountiful rains, and are all looking forward very hopefully for an unusually prosperous year.

## Our Agents.

OUR FRIENDS can do much in aid of our paper and the cause of practical knowledge and science, by assisting Agents in their labors of canvassing, by lending their influence and encouraging favors. We intend to send none but worthy men.

GEO. WILSON—Sacramento Co.  
J. C. HOAG—San Francisco.  
J. H. CROSSMAN—San Bernardino Co.  
F. W. KNAPP—Amador Co.  
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M. S. PRIME—Alameda Co.  
E. H. SCHAEFFER—Calaveras and Tuolumne Cos.  
F. B. LOGAN—Solano Co.  
A. S. COOLEY—Tehama Co.  
SAMUEL CLIFF—Creston, Cal.  
JOHN SIMPSON—Oregon.  
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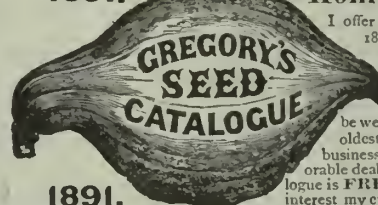
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Seeds, Plants, Etc., Continued on Pages 210-211.



### An Effective Stump-Puller.

A stump-puller recently patented in Canada and brought by the patentee to this coast, where it is manufactured, is doing wonderful work on Mr. McKerron's ranch in the Redwood district. Mr. Dent, the foreman of the ranch, tells us that he has been able, by the use of this machine, to pull trees two feet in diameter forcibly by the roots, without any cutting of lateral roots or the digging of ground. The machine is worked by horse-power, and is capable of doing great service in the clearing of land. It excels all stump-pullers we have seen before in this valley.—*Gilroy Advocate.*

From inquiry we learn that the machine referred to is the California stump-puller, but the editor of the *Advocate*, or his informant, has been mistaken as to its origin, as the machine is a California invention. The universal opinion, however, seems to be wherever this machine has been tried that it is the champion of all stump-pullers.

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MR. T. J. ALEXANDER, veterinary surgeon, and graduate of the Ontario Veterinary College of Toronto, Canada, has settled in Stockton, and has an office at Wolf's stables on Sutter street. He is a highly respected and genial gentleman, and has chosen a good location.

### COMPLIMENTARY REPORTS.

#### Experiences of Value to Others.

[Copy.]

CONCORD, CAL., Dec. 23d, 1890.

MESSRS. G. G. WICKSON & Co.—Gentlemen: In response to your inquiry, I will say that I consider the Rochester Gang Plow the best that I have ever used or seen.

[Signed] H. H. BANCROFT.

ARTOS, CAL., Dec. 23d, 1890.

MESSRS. G. G. WICKSON & Co.—Gentlemen: Having used the Rochester Orchard Plow in my Orchard, I am pleased to state that it does its work very well, and is much lighter on my team than I expected.

[Signed] E. C. WILLEKE'S McDONALD.

SARATOGA, CAL., Jan. 3d, 1891

MESSRS. G. G. WICKSON & Co.—Gentlemen: The "Cyclone Pulverizer" I purchased from you last year I have thoroughly tested, and am well pleased with it. For the last workings of an orchard it is especially valuable, leaving the ground well pulverized and level, and I think it deserves a trial by horticulturists.

[Signed] GEO. W. HANDY.

SANTA ROSA, CAL., July 14, 1890.

MESSRS. G. G. WICKSON & Co.—Gentlemen: We have used a set of your Steel Harness in plowing vineyard, and find it the most complete arrangement we ever saw. We have used them also for two-horse work on wagon, and they work equally as well as in our vineyard or orchard work. [Signed] W. E. & H. BENJAMIN.

EVERGREEN, CALIFORNIA, Aug. 1st, 1890.

MESSRS. G. G. WICKSON & Co.—Gentlemen: I take pleasure in stating that your Double Steel Harness has been given a thorough trial in my vineyard and found to work well, preventing injury to vines and trees to a great extent. It is a decided advantage to be able to hitch up the horses separately in the Harness and attach them afterward. [Signed] WILLIAM WEHNER.

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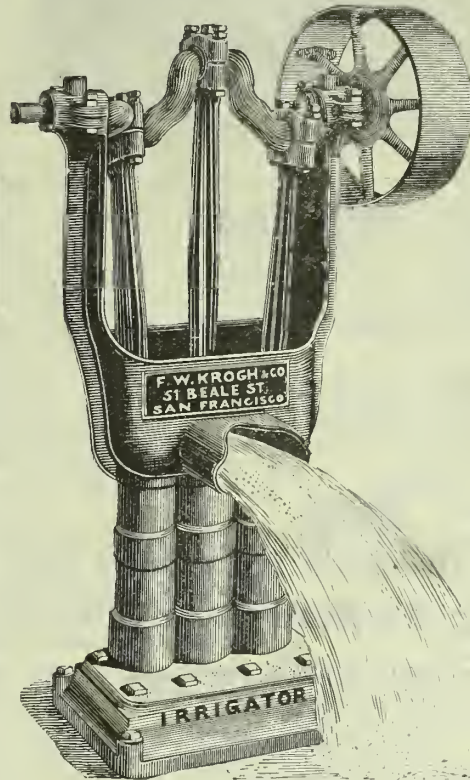
The population of the earth doubles itself every 260 years.

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NO BOILER AND NO DANGER  
FROM EXPLOSION.

USES EITHER CITY GAS  
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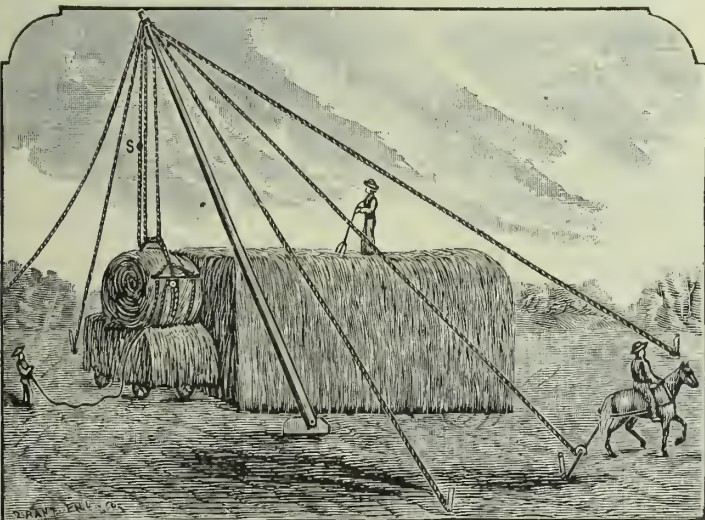
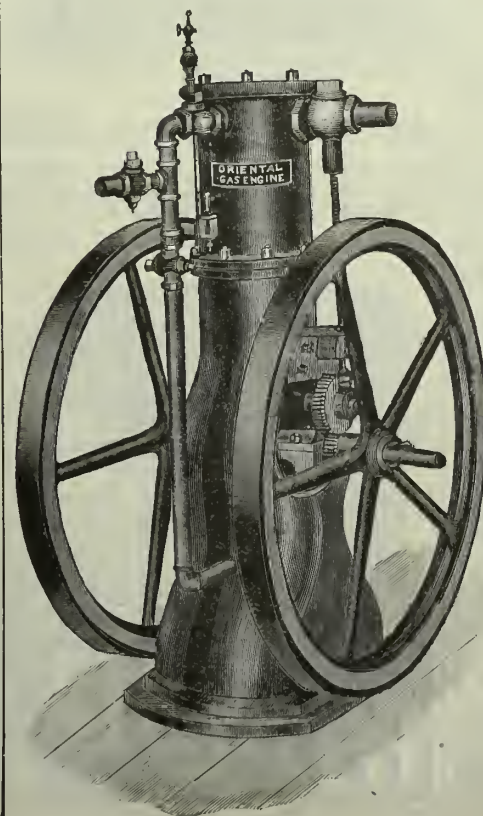
At a cost of 25 to 30 cents per day per horse power.

UNEXCELLED FOR FARM USE for

Pumping, Sawing, Dairying,  
Etc., or for Hunting or Pleasure Boats, Printing,  
Elevators, &c.  
The Best Material and Workmanship. Every  
Engine Guaranteed as Represented.

Engines from 1 to 50 H. P.

Best of References.



### Louden Haying Tools.

The above is an illustration of a hay-stacker manufactured by the Louden Machinery Co. of Fairfield, Iowa, whose haying tools are advertised in our columns.

It is simply a pole provided with fittings, which the company furnish, and supported by guys in such a manner that a sling load may be lifted at one end of a large rick and dropped anywhere along its center in a broad thin flake which makes it quick and easy work to build a splendid stack.

### A Perfect Fruit-Grader.

The Cylinder Grader manufactured by D. D. Wass, Nos. 141 and 143 First St., San Francisco, has proved the most rapid working machine for grading prunes, olives, oranges, lemons, etc., that has yet been introduced. Wherever it was used last season it gave satisfaction, and it promises to come into general use. See advertisement on another page.

### JOHN F. BYXBEE,

Commission Dealer in

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Shingles, Posts,  
Pickets and Piling.

Manufacturer & Pacific Coast Agent  
of the Popular

**BYRKIT-HALL**

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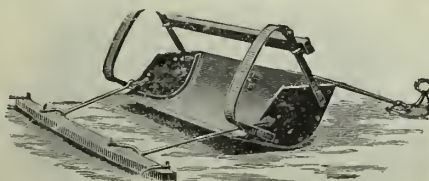
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A valuable invention but recently  
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Manufactured by

**G. LISSENDEN.**

The attention of the public is called to this Scraper and the many varieties of work of which it is capable, such as Railroad Work, Irrigation Ditches, Levee Building, Leveling Land, Road Making, etc.

This implement will take up and carry its load to any desired distance. It will distribute the dirt evenly or deposit its load in bulk as desired. It will do the work of Scraper, Grader, and Carrier. Thousands of these Scrapers are in use in all parts of the country.

This Scraper is all steel—the only one manufactured in the State.

Price, all Steel, 4-horse, \$40; Steel 2-horse, \$31.

Address all orders to G. LISSENDEN, Stockton, Cal.

ENGRAVING—SUPERIOR WOOD AND  
Metal Engraving, Electrotyping and Stereotyping  
done at the office of this paper.



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Six lines or less in this Directory at 50c per line per month.

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**CHARLES E. HUMBERT**, Cloverdale, Cal., Importer and Breeder of Recorded Holstein-Friesian Cattle. Catalogues on application.

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**PURE-BRED HOLSTEIN FRIESIAN Cattle** for Sale. Bonnie Brae Cattle Co., Hollister, Cal.

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**J. H. WHITE**, Lakeville, Sonoma Co., Cal., breeder of Registered Holstein Cattle.

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**PETER SAXE & SON**, Lick House, San Francisco, Cal. Importers and Breeders, for past 18 years, of every variety of Cattle, Horses, Sheep and Hogs.

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**IF YOU KEEP ANY KIND OF FOWLS**, Pet Stock, Dogs, &c., it will pay you to send your address at once to C. R. Harker, Santa Clara, Cal. You cannot afford not to do it. It will cost you but one cent and you will receive something worth ten times that.

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**APIARIAN SUPPLIES**. Italian Queens, \$2.50 each; Black Queens, \$1 each. Swarms from \$2.50 each; Smoker, \$1. Comb Foundation, \$1.25 per pound; V-groove Sections, \$4 per 1000 Comb Honey wholesale and retail; Hives, etc. W. ETYAN & SON, The Homestead Apiary, San Mateo, Cal.

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OF  
PURE-BRED ABERDEEN POLLED-  
ANGUS, GALLOWAY, DEVON  
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## CATTLE,

Property of the Estate of the late SETH COOK,  
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TO BE SOLD BY ORDER OF THE EXECUTOR, AT

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The offering will consist of Young Bulls and Heifers of the Highest Type of breeding, duly registered. Certificates of breeding will accompany each animal. **KILLIP & CO., Auctioneers.** 22 MONTGOMERY ST., S. F.



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Mr. Ayres having decided to retire permanently from the breeding of trotting horses, will dispose of every animal upon the farm, with the exception of two work horses, without limit or reserve.

Catalogues will be ready February 9.

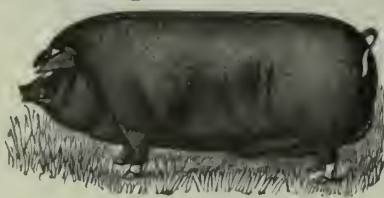
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IMPORTED ALEXANDER'S CHOICE.

Sire, Ivanhoe 2913; Dam, Rosa Corwin 4303.

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Sire, Surprise 2941, he by Give or Take 2515; Dam, Black Beauty 26,896.

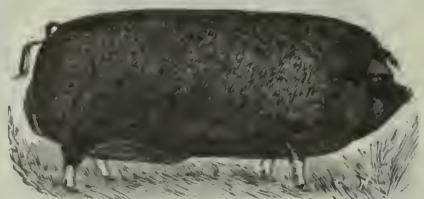
A FEW CHOICE PIGS NOW FOR SALE.

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Young Stock for sale at reasonable prices. Every animal guaranteed.

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Saves One-Quarter of Grain Feed.

FRAUDULENT PARTIES have been selling an article, claiming theirs to be the same, and, in order to mislead, have added a prefix to "Manhattan." Our genuine food is called simply "Manhattan Food," with the Red Ball Brand.

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Consisting of  
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Prices moderate and terms liberal to suit the times. Catalogues for 1891 on application. **THEO. SKILLMAN.**

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OLD WOMAN  
WHO  
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Has made her for-  
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This is an apparatus for turning straw and sulphur and also forces the fumes down their holes which never fails to kill. I will give \$100 in case the exterminator does not kill (if properly applied) every ground squirrel that its deathly fumes comes in contact with. Thousands are in use. Price \$3.00. Send for circulars to

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THE HANDSOMEST, MOST INTELLIGENT, MOST companionable, best house, watch and carriage dogs in existence, as well as the best ALL-AROUND sportsman's dog with the gun. Mention this paper, and for particulars address M. P. MCKOON, El Cajon, San Diego County, California.

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BREEDER OF REGISTERED  
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As other makers IMITATE our Giant Powder, so do they Judson, by Manufacturing a second-grade, inferior to Judson,  
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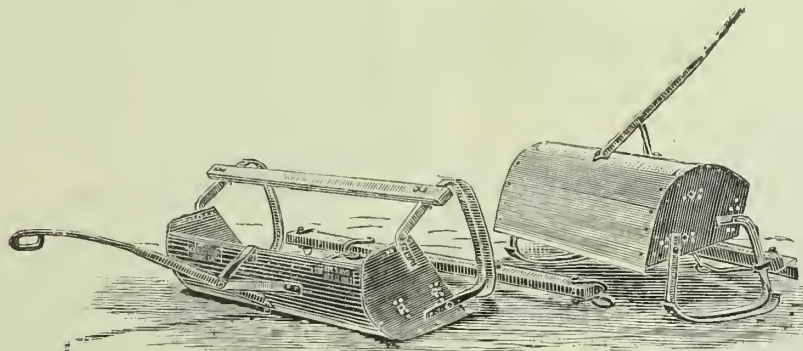
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CONSIGNMENTS OF GRAIN, WOOL, AND ALL KINDS OF PRODUCE SOLICITED.  
Money advanced on Grain in Store at lowest possible rates of interest.  
Full Cargoes of Wheat furnished Shippers at short notice.  
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MR. JAS. PORTEOUS, Fresno, Cal.—DEAR SIR: In answer to yours of 6th inst., will say that I have found your new style four-horse Scraper the best all-round Scraper I have yet tried. Respectfully yours,  
**J. W. SCHMITZ, Supt. Miller & Lux.**

SEND FOR CATALOGUE AND PRICE LIST.

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PRESERVATIVE COMPOUNDS FOR WOOD, IRON OR METAL.  
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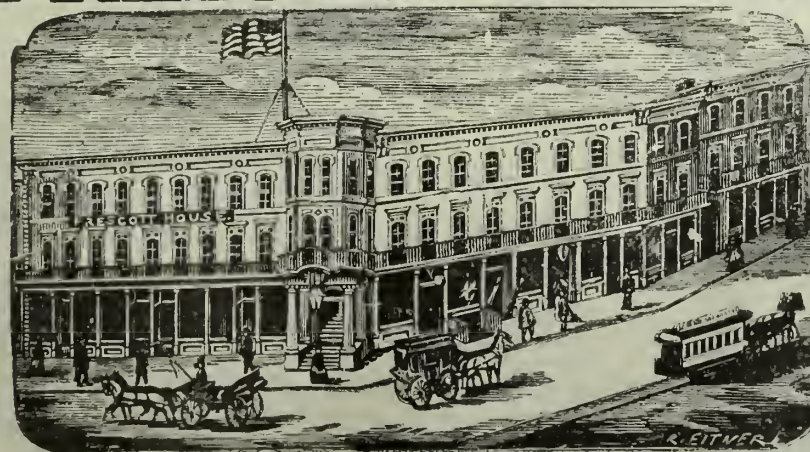
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Free Coach to and from the House.  
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GREEN AND DRIED FRUIT, NUTS,  
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SHIPPING ORDERS A SPECIALTY.

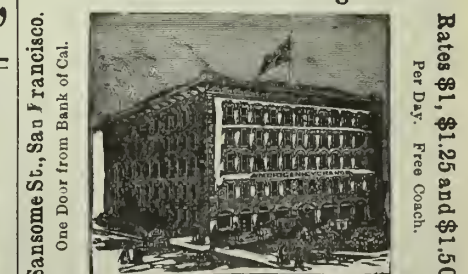
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All Kinds of Green and Dried Fruits.  
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## Go to American Exchange Hotel.



The above Hotel is situated in the midst of the Bank-  
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most home-like and desirable Hotel to stop at.  
**CHAS. & WM. MONTGOMERY, Prop'rs.**

Our "TRUE APOLLO RING"  
Is the thinnest ground Razor made, and needs  
but little stropping. If you want to  
own and use the best Razor it is  
possible to make, send us  
an order for this one  
at \$2.00.  
\$2.00  
WIDTHS.  
1/2 & 3/4 in.  
We carry a great variety of Razors, but have selected  
this one as the most desirable we or any one can offer.  
This is a ROYAL RAZOR, believe us.  
Sent by mail, Postage paid.  
**ALLING & LODGE, MADISON, IND.**



## S. H. MARKET REPORT

## Market Review.

## DOMESTIC PRODUCE, ETC.

SAN FRANCISCO, Feb. 25, 1891.  
A general rainstorm set in last Saturday and continued, with varying force, well into Monday. The heaviest rainfall was in the southern part of the State, where more or less damage is reported by high water—the highest for years. So far, the indications are favorable for bountiful crops. In farm products, trading has been fairly active, particularly in cereals. While the prices for barley fell off, those for wheat advanced. The English markets for wheat exhibited more strength. The following is to-day's cablegram:

LIVERPOOL, Feb. 25.—Wheat—Upward tendency. California spot lots, 7s 10d; off coast, 39s 3d@39s 6d; just shipped, 38s 3d; nearly due, 39s 3d; cargoes off coast, nothing offered; on passage, firm and held higher; Mark Lane wheat, held higher; wheat in Paris, firm; flour, turn dearer.

## Foreign Grain Review.

LONDON, Feb. 23.—The *Mark Lane Express*, in its review of the British grain trade during the week past, says: English wheats are active and prices advanced 8d; foreign wheats, increased demand, 6d higher. At to-day's market English and foreign wheats are 3d higher. Oats held for 3d more; round corn, 3d dearer; flour, barley and beans firm.

## Liverpool Wheat Market.

The following are the closing prices paid for wheat options per cwt. for the past week:

	Feb.	Mar.	April.	May.	June.	July.
Thursday....	7s9½d	7s9½d	7s9½d	7s9½d	7s9½d	7s9½d
Friday.....	7s9½d	7s9½d	7s9½d	7s9½d	7s9½d	7s9½d
Saturday....	7s9½d	7s9½d	7s9½d	7s9½d	7s9½d	7s9½d
Monday.....	7s9½d	7s9½d	7s9½d	7s9½d	7s9½d	7s9½d
Tuesday....	7s9½d	7s9½d	7s9½d	7s9½d	7s9½d	7s9½d

The following are the prices for California cargoes for off coast, nearly due and prompt shipments for the past week:

	O. C.	P. S.	N. D.	Market
Thursday....	38s0d	38s0d	38s0d	Very firm.
Friday.....	38s0d	38s0d	38s0d	Firm
Saturday....	38s0d	38s0d	38s0d	Strong
Monday.....	38s0d	38s0d	38s0d	No offers.
Tuesday....	38s0d	38s0d	38s0d	Strong.

## Eastern Grain Markets.

The following shows the closing prices of wheat at New York for the past week, per bushel:

Day.	Feb.	Mar.	April.	May.	June.	July.
Thursday....	109½	109½	109½	109½	109½	99½
Friday.....	109½	109½	109½	109½	109½	99½
Saturday....	110½	110½	110½	106½	104	100½
Monday.....	109½	109½	109½	109½	109½	99½
Tuesday....	109½	109½	109½	109½	109½	99½

The closing prices for wheat have been as follows at Chicago for the past week, per bushel:

Day.	Feb.	Mar.	April.	May.	June.	July.
Thursday....	97	97	97	97	97	97
Friday.....	97	97	97	97	97	97
Saturday....	97	97	97	97	97	97
Monday.....	97	97	97	97	97	97
Tuesday....	97	97	97	97	97	97

NEW YORK, Feb. 25.—Wheat—\$1.05½ for May, \$1.03½ for June, \$1.00½ for July, and 98½¢ for December.

CHICAGO, Feb. 25.—Wheat—97c for May and 92½c for July.

## Eastern Wool Markets.

NEW YORK, Feb. 20.—*Bradstreet's* will say: The aggregate of business in the several markets has been below the average. This is due almost entirely to the scarcity of large lots of choice wools. Values are practically unchanged, though in some instances dealers have been able to secure a slight advantage on some extra choice lots of domestics, particularly in Ohio and Michigan X wools. An active movement still prevails in Australia wools. Arrivals during the week have been large. London cables have strengthened values in these wools, and dealers find buyers to take them at full quotations. Worsteds are taking wools very freely. In Texas and Territories the transactions are confined to small lots on account of light stocks of these wools. The demand for fleeces is reported stronger. Carpet wools are in much better request than a week ago. A large quantity of Donkols, Allepos and Angoras has changed hands during the week.

NEW YORK, Feb. 24.—Wool sustains all the late bright conditions, and manufacturers pay full prices without rebate. Sellers comprehend the bearing of a moderate demand for goods at unvaried line value and cannot consistently mark up the material, especially as the rating quality is in their favor in overbeated and depleted stock.

All seaboard points mention a lack of assortment evidence and a strong opening for the new clip. The sale of foreign shows up well considering the free arrivals on former contracts.

Boston repeats the activity again with liberal sales. An Australian sale of 780,000 pounds, another of 2,000,000 foreign, 351,000 pounds of domestic, including 218,000 pounds of California, largely at 17@18c for grades, with 140,000 pounds of choice northern at private terms.

Philadelphia shows liberal movements in the upper classes, with the wool worsted makers as the best customers. All supplies are light and prices extremely firm.

## Dried Fruits.

NEW YORK, Feb. 24.—The raisin trade is rated with an enlarged movement in bag raisins. The attraction now in prices has put numerous carloads in distribution hands here and in other cities, and welcome orders are being filled for country consumers. Of course 5@5½c are not cheerful prices for shippers and owners, but are better, however, than dead storage, shrinkage and other in direct deterioration. Layers, boxes, sell for \$1.75@2.25; good faced Three Crowns, \$1; selected, \$1.60; poor marks unfaced, \$1.40; sack prunes low at 9c, boxes 11c, and represent a very light trade of moment. Evaporated apples, 12½@14c. Unpeeled peaches dull at 13@15c. Apricots and pitted plums are quiet and without new prices.

NEW YORK, Feb. 24.—The *Commercial Bulletin* says: The prices of raisins are now down to a point at which Pacific Coast fruit holds its own in competition with foreign goods, and there is reason to believe with a further slight modification in cost, Valencias will meet a more formidable competitor in the product of the Golden State. In some quarters the opinion is expressed that California is in a position to supply nearly all the raisins that will be

wanted in this country. Wide-awake packers, we are informed, are alive to the situation and are preparing to turn out a better article the coming season, recognizing that their interests lie in the putting out of a higher grade of raisins to compete against Valencias. Malagas have already been crowded out by Californians. The Valencias will undoubtedly suffer if the Californians recognize their opportunity and act judiciously.

## Miscellaneous.

NEW YORK, Feb. 24.—Mustard seed and honey unchanged; the latter firm at 7@7½c.  
Dry hides are steady and moderate. Sales of selected California were made at 13@13½c; Central American, 11c; range, common to best, and foreign, 9@14c.

Hops are again inactive and toneless. Brewers obtained some interior bargains even for small wants, and the remarkably light call warrants the suspicion of substitutes being used; common to best range from 28@35c, although good State and Coast have sold at 32c.

Lima beans are plenty at \$2.80, extremely careless harvesting being detrimental to sales this season.

## Local Markets.

	Buyer Season.	Seller 1891.	Buyer 1891.
Thursday....	136	131	165
Friday.....	132	129	164
Saturday....	125	124	161
Monday.....	131	128	164
Tuesday....	131	128	164

	Buyer Season.	Seller 1891.	Buyer 1891.
Thursday....	146	142	142
Friday.....	146	142	142
Saturday....	146	142	142
Monday.....	146	142	142
Tuesday....	146	142	142

BAGS—The market for Calcuttas is higher, owing to favorable crop weather. For June-July delivery, new importations are quoted at 6½@6¾c, and old stock 6½@6¾c.

BARLEY—The bears on Call, by systematic cross orders, succeeded in hammering season options down from 20c to 25c per cental. This naturally caused many holders of actual barley to let go. The sharp decline was followed by a reaction. The following are the reported sales made on to-day's Call:

Morning Session: Seller 1891—100 tons, \$1.05; 100, \$1.04½; 100, \$1.04½. Buyer season—1300 tons, \$1.35; 400, \$1.35½; 100, \$1.34½; 200, \$1.34½; 100, \$1.34½. Buyer 1891, after August 1st—200 tons, \$1.09; 200, \$1.08½; 100, \$1.08½. Afternoon Session: Buyer 1891—100 tons, \$1.34½; 100, \$1.34. Buyer season—100 tons, \$1.33½; 100, \$1.34. Seller 1891—100 tons, \$1.03½; 100, \$1.03½.

BUTTER—The market has shaded off under more liberal receipts and prospective freer supplies. Dealers and large consumers restrict their buying unless offered inducements by what they call fair concessions. The outlets for supplies are narrowing.

CHEESE—The market begins to give way, under accumulating stocks and larger available supplies.

EGGS—The market, after settling to lower prices, appears to be steadier. The better tone is due to rains interrupting receipts, but with freer receipts, prices, it is claimed, will settle slightly lower.

FLOUR—The market exhibits more strength, with a slight advance reported.

WHEAT—The sample market has made another upward move, due to a large supply of tonnage and also to better prices abroad. On Call there have been freer dealings in futures. The following are to-day's reported sales:

Morning Session: Buyer 1891—800 tons, \$1.48½; 300, \$1.48½; 500, \$1.48½. Buyer Season—100 tons \$1.44½; 400, \$1.44½; 300, \$1.44½; 100, \$1.44½; 100, \$1.45½; 300, \$1.45½. Afternoon Session: Buyer 1891—100 tons, \$1.48½; 800, \$1.48; 100, \$1.48½; 300, \$1.48½; 200, \$1.48½. Buyer season—500 tons, \$1.44½; 700, \$1.45½; 100, \$1.45; 100, \$1.45½; 1400, \$1.45½.

## Market Information.

## Produce Receipts.

Receipts of produce at this port for the week ending Feb. 24th, were as follows:

Flour, qr. sks....	72,895	Middlings, sks....	1,946
Wheat, cts....	213,141	Alfalfa, " " " " "	500
Barley, " " " " "	15,869	Chicory, bbls....	2
Rye " " " " "	1,742	Broomcorn bbls....	2
Oats " " " " "	7,103	Hops, bbls....	74
Corn " " " " "	9,180	Wool, " " " " "	2
*Butter " " " " "	6,411	Hay, tons....	1,039
do bxs " " " " "	172	Straw " " " " "	36
do bbls " " " " "	1	Wine, gals....	249,510
do kegs " " " " "	1	Brandy, " " " " "	3,800
do tubs " " " " "	1	Raisins, bxs....	1,523
do ½ bxs " " " " "	2	Honey, cs....	82
†Cheese, cts....	465	Walnuts, sks....	2
do bxs " " " " "	42	Flaxseed, " " " " "	2
Eggs, doz....	52,110	Mustard, " " " " "	2
do " Eastern " " " " "	1	Almonds, " " " " "	155
Beans, cts....	8,205	Peanuts, " " " " "	2
Potatoes, sks....	31,905	Popcorn, " " " " "	2
Onions, " " " " "	1,961	Beer sugar, bbls....	2
Bran, " " " " "	12,400	do do sks....	2
Buckwheat " " " " "	2		

\*Overland 250 cts. †Overland 659 cts.

## Cereals.

The local wheat market has held strong at slightly advancing prices. The strength of the market is due to the strong statistical position abroad and in this country. The surplus the world over has been steadily decreasing for five years past, until it is now so very low that any decided falling off in the world's crop output makes itself felt in the demand markets, particularly with the range of values far below the average range preceding the demonetizing of silver by the United States. The revolution in Chili will stop exporting from that country. The crop in the Argentine Republic and also in Australasia is below that of the preceding season's output. Indian crop advices do not indicate more than an average crop, while the weather in Europe is said to have been against an average acreage being seeded. In the United States it now looks as if there will be an

increased acreage seeded. In this State there has been a decided increase in the acreage, fully 50 per cent over last year's, while in Oregon and Washington the acreage will barely equal that of 1890. In California the weather has been of the most favorable character for growing crops. The plant has made an excellent growth of roots, while there is everything to warrant the assertion that it will stool out better than for several years past. The large deposits of snow on the mountain ranges and the transforming of many districts from cereal or pasture to vineyards and orchards, justify the growing belief that the hot north winds will not come until well into summer or after harvest. With the absence of north winds, the grain will be harvested without serious loss.

The way in which barley options, through cross orders on Call, were hammered down illustrates but too well how operators can and do use the Call Board to further their purposes against the farmers' interests. The strong statistical position of barley on this coast did not warrant any decline in prices, but on the contrary, even with rains, it justified good prices up to next harvest. By hammering options down on Call, a large quantity of actual grain on which money was borrowed had to be sacrificed, and of course the ring took it in. A drop in a few days of about \$5 a ton in 1890-91 season options has never before been done in this market. Yesterday (Tuesday) the market rallied some under strong buying by some outsiders.

Oats are lower and placed with difficulty except at lower prices. The advance in barley toward the close, combined with smaller available supplies, is calculated to create a stronger market. The crop outlook is of the most favorable character, but new-crop oats will not be available much, if any, before July.

Corn shaded off slightly under free receipts and a falling off in the demand. The market closes with a fairly firm tone.

Rye and huckwheat are unchanged.

*Mark Lane Express*, Feb. 9: Russian wheat is now being held very firmly, and the inferior quality of new English wheat deliveries strengthens bidders' hands. Australian wheat is also well held, and as the quality is good, the attempt to purchase under 37s. does not at present seem likely to be attended with success. The cheaper sorts of wheat are not abundant, and the new Indian crop will not be troubling the Mark Lane standholders much before June. There appears to be a strong probability of firm trade during February, March and April. Later months will be under the influence of crops and seasons at home and abroad. The spring corn trade shows 20 markets out of 33 firm or dearer for barley, 18 out of 20 firm for oats, 20 out of 21 firm for maize, and 23 out of 25 firm for pulse. Thus the thaw has by no means reduced demand; on the contrary the protracted frost has left us with damaged and diminished stocks of roots. The value of ensilage as a feeding stuff is found to be greatly enhanced by a judicious combination with dry goods. Hence at most markets since February came in the inquiry has been rather above the average, and sales at fully previous prices have been easy. Barley has advanced 6d per qr. at Bristol.

## Canadian Wheat Notes.

*Mark Lane Express*, Feb. 9th: We are always glad to chronicle advance in the Canadian Northwest, and the following news from Saskatchewan is not lacking in encouragement: A few years ago, the Dominion Government, acting under the advice of experts, imported a certain amount of Russian seed wheat with a view to crossing the hardy Russian varieties with the wheat of Manitoba and the Northwest, which had suffered severely from frosts. It is now reported that the experiment has proved a success, and Mr. James Steen of Winnipeg gives some remarkable details respecting the cultivation of Ladoga wheat in the territory of Saskatchewan, 350 miles north of the boundary of Manitoba and Dakota. The samples to which he refers have been examined on Mark Lane market, and were there held to be as fine specimens of hard spring wheat as could be well desired, weighing 66½ lbs. to the bushel, and in all respects looking a "miller's wheat." Mr. Steen thinks the projected Hudson's Bay railway likely, if ever carried out, to largely stimulate the culture of grain, because in such a case a rail transit of 500 miles would take the wheat to Port Churchill, whence a direct sea voyage would lay it down in Liverpool or London. The great advantage of such a route would be the likelihood that wheat so conveyed would reach our shores in pure condition, inasmuch as the cost of bringing inferior grain from the East and Southwest would almost prohibit any tampering with the genuine "hard grade."

## Live-Stock.

Improved pastures cause stockmen to hold back supplies. This, together with floods in the southern part of the State and also in Arizona, causes lessened receipts, which naturally creates better prices for bullocks. Mutton sheep are firmer. Hogs are barely steady. Fresh milk cows can be placed to better advantage. In horses there is nothing new to report.

The market for dressed cattle is quoted as follows (to obtain the price on foot, take off from the price for stall-fed one-third to one-half, according to the nature of the feed and time fed; and for grass-fed take off the price from 40 to 60 per cent):

HOGS—On foot, light grain fed, 4½@4¾c; lb.; dressed, 7@8½c; lb.; heavy, 4¾@4½c; lb.

BEEF—Stall fed, 7@7½c; lb.; grass fed, extra, 6½@—c; lb.; first quality, 6@—c; lb.; second quality 5@—c; lb.; third quality, 4@—c; lb.

VEAL—Small, 8@9c; lb.; large, 6@7c.

MUTTON—Wethers, 8@9c; lb.; ewes, 7½@8½c; lb.; spring lamb, 15@—c; lb.

## Feedstuff.

The market for all kinds of feedstuff suffered severely by the week's rainstorms. The rains were generally warm, which caused vegetation to make rapid growth, but frosts last night, unless followed by warmer nights, will check the growth. Feeders and dealers confine their buying as much as possible.

The market for bran fell about \$4 a ton, middlings \$3 and ground barley \$5. The latter has rallied somewhat since.

Feeders and dealers are fighting for lower prices on hay, and to get it are not disposed to buy to arrive except at concessions. The brighter prospects

for the hay crop and improved pasture are against sellers.

## Fruits.

Apples are firm at a slight advance. The demand is good for good keepers of the better varieties.

Rains and floods in the southern part of the State will probably lessen the receipts of oranges; and as the stock here is not large, prices may temporarily advance. The consumption with us shows a steady increase. Shipments up north have been quite free.

An invoice of Mexican limes has come to hand. Both limes and lemons are firm.

The market for dried fruits continues to work more in sellers' favor. The spring demand, it is claimed, will be quite free.

The raisin market has a stronger tone, due to Eastern buyers cleaning up all cheap consignment parcels. A systematic movement was made by them to bear the markets at the East in order to buy up all outside parcels. This, it appears, has been fairly successful. The supply in this State is light, while the demand is expected in the spring months to be fairly heavy.

Oranges closed to-day very strong under a good demand. Choice Riverside Navels, 150's to 170's, sold up to \$4.50 per box, and choice seedlings fetch as high as \$2.25.

## Vegetables.

Rains the past week interrupted deliveries of seasonable garden truck, but with clear skies supplies will increase. A very heavy frost last night (Tuesday) has probably nipped some of the more tender plants. It is claimed that more attention is being given to vegetable gardening.

Onions come in more freely, which caused a slight shading in prices, but toward the close, receipts being lighter, the market has a firmer tone.

As indicated in our last week's report (this department is written up on Wednesday) the potato market broke under heavy receipts. The supply in this State and Oregon is too heavy to look for better prices; for with each improvement in the market supplies are rushed in, which sends prices down again. New, as yet, do not cut much of a figure, but they will soon begin to put in an appearance in increasing quantities.

Beans are steady. Buyers are trying to bear the market. The weather is favorable for crop purposes.

## Miscellaneous.

Poultry is firm for the better conditioned hens, roosters and young fowls. Dressed turkeys which came in on Friday and Saturday last had to be sold at the best obtainable prices, the holiday and the weather being against holding them over.

J. M. Moore, Alliance agent, received, last Friday, a consignment of fine, large, dressed turkeys. The flesh was hard and juicy. The smallest in the consignment weighed about 15 pounds and the largest about 23 pounds. Had they come to hand just before Christmas, they would readily have brought from 2½ to 5 cents above the market range, owing to their superior quality.

Honey is reported unchanged, as is beeswax.

Some selling pressure is reported of a few straggling parcels of hops. The stock on this coast is quite small—not enough to meet requirements up to new-crop season.

Wool is dull and unchanged. Only scourers are buying.

Owing to the new city ordinance prohibiting selling wild ducks and snipe after this month, we withdraw quotations for wild ducks, geese, quail and snipe.

Exports by sea the past week aggregate as follows: Wheat, cts., Antwerp, 52,993; Havre 69,584; Liverpool, 138,485. Flour, bbls., Central America, 3678; Panama, 150; Havre, 687. Corn, cts., Central America, 420. Barley, cts., Honolulu, 3141. Rolled barley, cts., Honolulu, 247. Beans, lbs., Victoria, 9926; Central America, 11,622; Panama, 4721; Honolulu, 12,622. Wine, gals., Victoria 375; Honolulu, 2950; New York, 63,556; Newark, 1249; Baltimore, 100; Philadelphia, 2638; Central America, 1745. Brandy, gals., New York, 3618. Bran, sks., Honolulu, 1362. Raisins, bxs., 115.

From the *Commercial News* of Feb. 25th the following summary of tonnage movement is compiled:

	1891.	1890.
San Francisco.....	264,888	172,992
San Diego.....	10,934	16,983
San Pedro.....	6,433	3,383
Oregon.....	30,083	28,695
Puget Sound.....	16,161	15,859
Totals.....	328,499	237,912

In port at  
San Francisco, disengaged..... 24,573 21,097  
" engaged for wheat..... 61,046 73,466  
San Diego..... 3,451  
San Pedro..... 3,308  
Columbia River..... 11,036  
Puget Sound.....

Totals..... 100,106 97,871  
To get the carrying capacity, add 65 per cent to the registered tons as given above.

From July 1, 1890, to Feb. 13, 1891, the following are the exports from this port: 1891. 1890.  
Wheat, cts..... 7,710,489 8,444,052  
Flour, bbls..... 726,335 718,864  
Barley..... 201,680 874,055

## Fruits and Vegetables.

Choice selected, in good packages, fetch an advance on top quotations, while very poor grades sell less than the lower quotations.

Bananas, bunch	1 50 @ 2 50	VEGETABLES.	
Limes, Mex....	7 50 @ 9 00	Okra, dry, B....	10 @ 17½
do California.	" @ 4 00	Parsnips, cts....	1 25 @ —
do do small bxs	1 25 @ 1 50	Peppers, dry, lb	12 @ 20
Lemons, box.	" " " " "	do green.....	12½ @ 17½
do Riverside.	2 00 @ 2 50	Turnips, cts....	75 @ —
do Los Angeles	1 25 @ 1 50	Beets, sk., " " "	— @ 1 00
do Sili, bx. 5.	5 50 @ 6 00	Cabbage, 100 lbs	60 @ 70
Seedling Oranges	" " " " "	Carrots, sk....	50 @ —
do Riverside.	1 75 @ 2 25	Marrowfat, ton	20 @ 25 00
do Los Angeles	1 00 @ 1 50	Artich. lb.....	3 @ 5
Navel Oranges.	3 75 @ 4 50	Asparagus, lb..	20 @ 25
do Los Angeles	2 50 @ 3 00	do Bouldin....	40 @ 50
do do scaly.	1 50 @ 2 00	Mushrooms,	" " " " "
do Duarte.	3 25 @ 4 25	Common, lb	20 @ 25
Pineapples, doz	4 50 @ 5 00	Choice.....	40 @ 50
do do scaly.	1 50 @ 2 00	Celery, per doz	50 @ 65
do good.....	1 00 @ 1 25	Cauliflower, doz	— @ 65
do choice.....	1 25 @ 2 00	Pas, green lb.	4 @ 5
do Giltedge.	2 50 @ —	Summer Squash	9 @ 10
do do small bbs	" " " " "	Tomatoes, box.	1 00 @ 2 00

\*In quoting oranges, regular sizes are given, viz. from 112 to 176 for Navels, and 126 to 226 for seedlings; old sizes 50 cents to \$1 per box less.



Domestic Produce.

Extra choice in good packages fetch an advance on top quotations, while very poor grades sell less than the lower quotations. WEDNESDAY, Feb. 25, 1891.

BEANS AND PEAS.		NUTS—JOBBER.	
Bayo, chl.	3 65 @ 3 85	Walnuts, Cal. lb	9 @
Butter, .....	3 00 @ 3 30	do Ohio.....	10 @
Peas.....	2 75 @ 3 15	do paper shell	11 @ 12 1/2
Red.....	2 75 @ 2 90	do Chili.....	9 @ 10
Pink.....	2 30 @ 2 45	Almonds, hd shl.	7 @ 9
Small White ..	2 75 @ 3 03	Softshell.....	14 @ 15
Lima.....	3 75 @ 3 90	Paper shell.....	15 @ 17
Fla Peas, hkeye	1 65 @ 1 85	Brazil.....	12 @ 14
do green.....	2 00 @ 2 40	Pecans small.....	12 @ 14
do Niles.....	1 50 @ 1 70	do large.....	15 @ 18
Split.....	4 1/2 @ 5 1/2	Peanuts.....	5 @ 5 1/2
BROOM CORN.		FILBERTS.	
Choice to Extra	70 @ 90 00	Hickory.....	7 @ 8
Fair to Good.....	52 @ 65 00	Chestnuts.....	12 @ 15
Poor.....	42 @ 47 50	Pine nuts.....	7 @ 8
CHICORY.		ONIONS.	
California.....	5 1/2 @ 6	Silver Skin.....	3 25 @ 4 00
German.....	6 @ 6 1/2	POTATOES.	
DAIRY PRODUCE, ETC.		Early Rose, aka.	60 @ 75
BUTTER.		Tomatoes, Burhuk	90 @ 1 00
Cal. Poor to fair, lb	20 @ 27 1/2	River Reds.....	65 @ 75
do good to choice	23 @ 30	Burhanks, river.	90 @ 1 00
do Giltedged.....	32 @ —	do Salinas.....	1 00 @ 1 25
do Creamery rolls	33 @ —	do Petaluma.....	80 @ 90
do Eastern tubs	25 @ —	do Humboldt.....	1 00 @ 1 20
do do dairy.....	20 @ 25	do Oregon.....	1 00 @ 1 25
CHEESE.		Jersey Blues.....	70 @ 90
Cal. choice milk	12 @ 13	POULTRY AND GAME.	
do fair to good	10 @ 12	Hens, doz.....	5 00 @ 7 00
do gilt edged.....	14 @ 14 1/2	Roosters, old.....	4 50 @ 6 00
Young America	13 @ 15	do young.....	7 50 @ 9 00
N. York Cream.	13 @ 15	Broilers, small	4 00 @ 5 00
Western.....	11 @ 13	do large.....	5 50 @ —
EGGS.		Fryers.....	6 00 @ —
Cal. ranch, doz.	18 @ —	Ducks, tame.....	5 00 @ 6 00
do do selected	19 @ —	do large.....	7 00 @ 8 00
do store.....	17 @ —	Geesa, pair.....	1 50 @ 2 00
Eastern, fresh.....	— @ —	Turkeys, Gohlr.	12 @ 13
FEED.		Turkeys, Hens.....	14 @ 15
Brn, ton.....	15 50 @ 16 50	do dressed.....	13 @ 16
Feedmeal.....	23 00 @ 31 00	Pigeons.....	1 75 @ 2 50
Ord Barley.....	23 00 @ 31 00	Rabbits, doz.....	1 25 @ 1 50
Middlings.....	13 00 @ 20 00	Hare.....	1 50 @ 2 00
Oil Cake Meal.....	26 00 @ 28 00	EGG FOOD.	
Manhattan Food.....	100 lbs 7 50	Manhattan, #1 lb	12 @ —
HAY.		PROVISIONS.	
Compressed.....	13 50 @ 18 00	Cal. Bacon, hvy, lb	9 @ —
Wheat, per ton, 13	00 @ 17 50	Medium.....	9 1/2 @ —
do choice.....	18 00 @ —	Light.....	13 @ —
Wheat and Oats 13	00 @ 17 00	Lard.....	9 @ 10
Wild Oats.....	12 00 @ 15 00	Cal. Sm'd Beef	11 @ 12
Tame do.....	12 00 @ 14 00	Hams, Cal.....	11 1/2 @ 12
Barley.....	11 50 @ 14 00	do Eastern.....	12 @ 12 1/2
Barley and Oats 11	50 @ 14 00	SEEDS.	
Alfalfa.....	11 00 @ 12 00	Alfalfa.....	7 @ 7 1/2
Clover.....	11 00 @ 12 00	Canary.....	23 @ 3
Straw hays.....	60 @ 75	Clover, Red.....	9 1/2 @ —
FLUR.		White.....	17 1/2 @ —
Extra, City Mills	4 10 @ 4 30	Oatmeal.....	20 @ 2 80
do Co'ty Mills 4 00	@ 4 30	Flaxseed.....	2 50 @ 2 80
Superfine.....	3 00 @ 3 50	Hemp.....	3 1/2 @ —
GRAIN, ETC.		Italian Rye Grass	10 @ 11
Barley, feed, chl.	1 27 1/2 @ 1 32 1/2	Perennial.....	5 @ 9
do Choice.....	1 33 1/2 @ —	Millet, German.	5 @ —
do Brewing.....	1 35 @ —	do Common.....	5 @ —
do do Choice.....	1 40 @ —	Mustard, yellow	2 20 @ 2 50
do do Choice.....	1 43 1/2 @ —	do Brown.....	2 1/2 @ 3
Buckwheat.....	1 45 @ 1 60	Rape.....	2 1/2 @ 3
Corn, White.....	1 32 1/2 @ 1 37 1/2	Ky. Blue Grass.	25 @ 27
Yellow, large.....	1 30 @ 1 33 1/2	Sweet V. Grass.	75 @ —
do, small.....	1 35 @ 1 37 1/2	Orchard.....	14 @ 16
Oats, milling.....	1 90 @ 1 95	Hungarian.....	7 1/2 @ 8
Surprise.....	1 95 @ —	Lawn.....	27 1/2 @ 40
Feed, Choice.....	1 70 1/2 @ —	Mesquit.....	7 @ 8
do good.....	1 72 1/2 @ —	Timothy.....	5 1/2 @ —
do fair.....	1 67 1/2 @ 1 75	TALLOW.	
do Gray.....	1 67 1/2 @ 1 75	Rendered, lb.....	3 @ 3 1/2
do Black.....	— @ —	Refined.....	4 1/2 @ 5 1/2
Rye.....	1 30 @ 1 35	WOOL—SPRING, 1890.	
Wheat, milling.	1 45 @ —	Humb't & Men'sino	19 @ 24
Gilt edged.....	1 45 @ —	Sac'to valley.....	15 @ 22
do Choice.....	1 43 1/2 @ —	Free Mountain.	18 @ 24
do fair to good	1 42 1/2 @ —	S Joaquin valley	12 1/2 @ 17
Shipping, choice	1 42 @ —	do mountain.	17 @ 22
do good.....	1 41 1/2 @ —	Calav & F'h'll.	15 @ 24
do fair.....	1 38 1/2 @ —	Oregon Eastern.	13 @ 22
Sonora.....	1 37 1/2 @ 1 41 1/2	do valley.....	20 @ 25
HIDES.		So'n Coast, def.	10 @ 14
Dry light to h'vy	9 @ —	So'n Coast, free.	12 1/2 @ 19
Salted.....	5 @ —	FALL—1890.	
HOPS.		North'n, choice	16 @ 18 1/2
Oregon, 1890.....	30 @ 40	do defective	14 @ 16
Cal 1890 Choice	37 1/2 @ 40	Mountain Free	13 @ 15 1/2
do Fair to G'd	30 @ 32 1/2	S Joaquin, def.	9 @ 11 1/2
		Southern do.....	9 @ 11 1/2

R.H.McDonald PRES. F.V.McDonald, CASHIER.  
ESTABLISHED 1863.  
Oldest Chartered Bank  
on the Pacific Coast.

**PACIFIC BANK**

Capital Stock  
\$1,000,000.00.  
SURPLUS \$ 800,000.00.  
Av. Resources, \$4,704,700.00

Yearly Volume  
of Business, \$230,000,000.00

(B) R. H. McDONALD Pres.  
San Francisco, California, Jan'y 1, 1891.

Deposits Received from \$1 and Upwards.

PEOPLE'S HOME SAVINGS BANK

805 Market St. cor. 4th St.  
SAN FRANCISCO, CALIFORNIA.

Guarantee Capital, \$1,000,000.00

Paid up in Cash.....\$333,333.33  
Subject to Call.....666,666.67

PAYS INTEREST FROM DATE OF DEPOSIT.  
Highest Rates Paid Consistent with Prudent Banking.  
RATES PAID LAST TWO TERMS

On Term Deposits.....5.52%  
On Ordinary Deposits.....4.60%

In connection with the Bank are the  
**SAFE DEPOSIT VAULTS,**  
on the street floor with the Bank.  
THE STRONGEST, WITHOUT EXCEPTION, ON THE COAST.  
Steel Safes, under the Renter's Individual Control, from  
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Trunks and Valuable Packages, taken on storage  
at reasonable rates.  
Burglar-Proof, Fire-Proof, centrally located and  
easy of access.  
Handsome, well-lighted, secluded and separate  
rooms for the use of safe renters.

(B) **IMPORTANT NOTICE.**  
The People's Home Savings Bank  
announces its new system of  
**5-CENT DEPOSIT STAMPS**  
This Deposit Stamp System has proved a marked  
success in England and Germany, and has done  
wonders in encouraging small savings and in  
pleasantly inculcating in youthful minds valuable  
lessons of thrift and economy.  
The stamps will be supplied at the Bank and  
through our Agents, a list of whom may be had  
on application.  
B. O. Carr, Columbus Waterhouse,  
Manager and Sec'y. President.  
Pacific Bank, Treasurer.  
San Francisco, California, Jan'y 1, 1891.

The Breath of Spring is in the Air.

Time to practice **EASTER MUSIC**, is it not?

Send for our **Fine List** of Carols, Anthems, &c., or for  
Easter Alleluias [sets, 50 cts. doz.], Rosahel, or our  
Easter Offering [15 cts., \$1.44 doz.], a Cantata by Lewis.

**MUSICAL SOCIETIES**  
should wind up the season by practicing such Cantatas  
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[35 cts., \$2.40 doz.], 91st Psalm [60 cts., \$5.40 doz.], Bal-  
lard. [Send for our List of 150 Cantatas.]

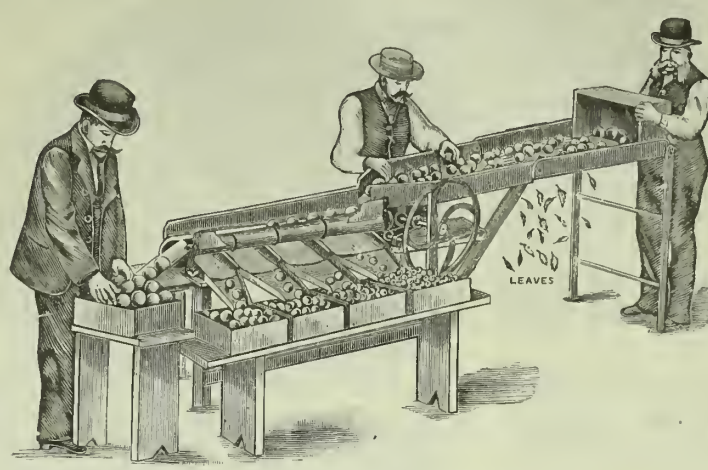
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are made successful by introducing easy Cantatas, like  
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Festival [20 cts., \$1.80 doz.] Lewis.

**BOYS and GIRLS**  
who sing will be delighted to take part in the brilliant  
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New Flower Queen [60 cts., \$5.40 doz.], Kingdom of  
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Children's School Songs [35 cts., \$3.60 doz.], Golden  
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NEW CALIFORNIA FRUIT GRADER.



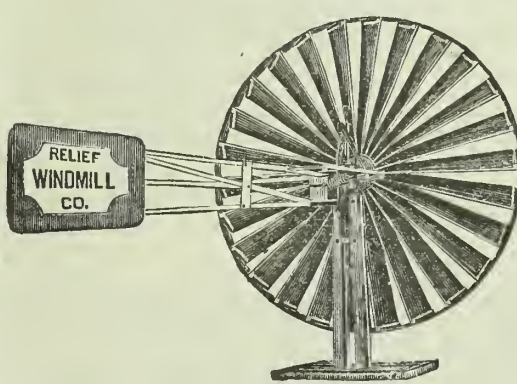
Grades All Kinds of Fruit --- Oranges, Lemons, Limes, Apples,  
Pears, Peaches, Plums, Prunes, Apricots and Grapes.  
Also Potatoes, Onions and Walnuts.

Our **ORANGE GRADER** is made especially for that business and grades the  
fruit into the following absolute sizes and with uniform accuracy, viz: 300.  
250, 220, 200, 176, 150, 128, 112, 96, 80 and less oranges per box, and  
runs with the same ease and regularity as the other fruit graders.

These graders took the First Premium at the State Fair of 1890 over all competitors, and the Silver Medal at  
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other grader in the market. Send for illustrated circular giving prices, capacity, and testimonials.

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**RELIABLE!**  
**EFFICIENT!**  
**DURABLE!**  
Over 5000 in Use!  
**IT COMBINES SIMPLICITY**  
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Twenty per cent cheaper than any other Separator.  
I now have on hand the small-sized Sharple's Improved  
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It is recommended by all commission houses,  
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Second hand De Laval's, good as new, for sale cheap.

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Grown in the open ground, namely: Manzanillo or  
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SEEDLESS GRAPE ROOTS.**These Grapes make the finest seedless raisins known  
For sale by J. P. ONSTOTT, Yuba City, Cal.**OLIVES!!**ORDERS WILL BE RECEIVED FOR A VERY  
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Varieties:FRANTOIO, CORREGGIOLO, } For Oil.  
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THE ATTENTION OF PLANTERS IS INVITED TO OUR COMPLETE STOCK OF

Almonds, Apples, Apricots, Cherries, Figs, Peaches, Pears, Plums, Prunes, Quinces,  
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500,000 ROOTED MUSCAT VINES

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Special Prices on Lots of 50,000 or more.**White Adriatic and San Pedro Figs  
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ESTABLISHED 1863. WRITE FOR CATALOGUE AND PRICE LIST.

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**TREES! TREES!****NURSERY STOCK**

OF EVERY DESCRIPTION.

PRUNES, PEACHES, APRICOTS, APPLES,  
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**BULBS & PLANTS.**MOST COMPLETE LINE OF  
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All Orders will Receive Prompt Attention.

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SATISFACTION GUARANTEED.

**W. R. STRONG CO., SACRAMENTO, CAL.****WE WANT A NAME FOR THIS NEW TOMATO**

UNTIL a suitable name is suggested  
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mato No. 400.  
Read terms of  
competi-  
tion be-  
low.

The No. "400" is the largest and  
heaviest Tomato known.  
In fact it is so solid as  
to be almost seed-  
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rich, dark,  
crim-  
son.

AND WILL PAY  
**\$ 250.00**  
FOR IT

The cut shows fruit one third natural size. The average weight of this Tomato is nearly 2 lbs. each.

**WE WILL PAY \$250.00 IN CASH**

For the best name suggested for this New Tomato.  
Purchasers are entitled to send in a name for each and every packet they buy. The  
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disinterested committee of three, who shall award the prize. Full directions for  
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Price of New Tomato No. "400," 25 cts. per packet, free by mail.  
With every order for a packet or more, we will also send free our magnificent New Cata-  
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**PETER HENDERSON & CO. 353 1/2 CORTLANDT ST. NEW YORK.****MOUNTAIN NURSERY.**

Fine Budded Orange and Lemon Trees.

First Class, 4 1/2 to 6 feet; Second Class, 3 1/2 to 4 1/2 feet.

SEEDLING TREES,  
SEED BED ORANGE PLANTS,  
LISBON LEMONS,WASHINGTON NAVELS,  
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400,000 OLIVES, 18 VARIETIES.  
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Budded Orange and Lemon Trees.

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Apple, Pear, Plum, Cherry, Peach, Apricot,  
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Or Red Gums at \$14.00 per 1000, all transplanted, healthy,  
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Fruit Trees,  
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Reduced Prices my Entire Stock of

## TREES, PLANTS &amp; SHRUBBERY,

Suitable for the Conservatory, for Parlor Windows, for the Flower Garden, for the  
Lawn, for Vases, for Rockeries, for Hanging Baskets, for Ribboning, for Hedges, for  
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Oakland, Cal.SALZER'S NORTHERN  
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SEEDSThey will yield for you, OATS 135 bu., WHEAT 40 bu.,  
BARLEY 60 bu., CORN 100 bu. POTATOES 500 bu. per a.  
Send 8 cents for sample farm seeds and catalogue.  
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SOFT-SHELL WALNUT,  
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REDDING PICHOLINE OLIVES,

1 to 1½ ft. \$3 per 100

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RARE KINDS,

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IN SUPPLY.

Oranges, Apricots, Almonds, Cherries, Apples, Japan  
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## PALM AND CITRUS NURSERY.

I OFFER THIS SEASON A LARGE AND SELECT  
stock in PALMS (50 varieties), in CITRUS—Eureka,  
Lemon, Washington, Navel, Indian River, etc.; in  
OLIVES—Mission (100,000), Italian (Franklin), Morinello,  
etc.) from imported trees; also the French and Spanish  
varieties. Large selections in PINEAPPLE and  
BANANAS. Also the largest collection of Tropical  
Fruit-Bearing Trees in the State, a few of which are:  
Alligator Pear, Cherimoya, Mango, Sour Sop, Sugar  
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Plum, Elephant Apple, and others too numerous to  
name. Send for Descriptive Catalogue. KINTON  
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## Mandarin Oranges.

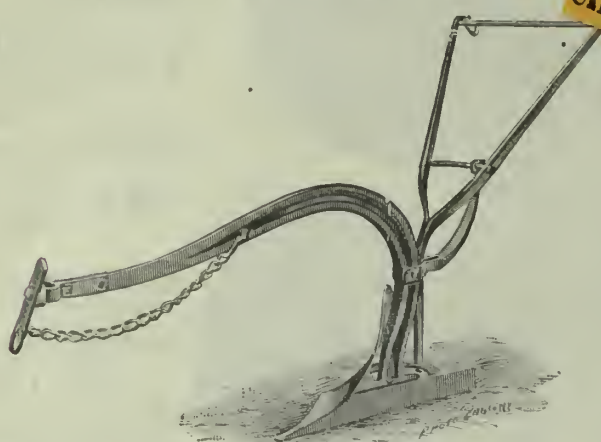
We sold in this market over 80,000 boxes s. et, seed-  
less, Japanese Mandarins at from 75 cents to \$1 per box,  
boxes being one-third of the regular size orange box.  
We offer 5000 Mandarin trees at \$20 per 100 in lots to suit.  
We have also a large variety of other fruit trees and  
garden plants, imported from Japan, at low figures.  
Apply at DOMOTO BROS. CO., Japanese Nursery, 663  
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# THE DEERE IMPLEMENT COMPANY'S LINE OF ORCHARD AND VINEYARD TOOLS

WITHOUT EXCEPTION, THE BEST IN THE WORLD.

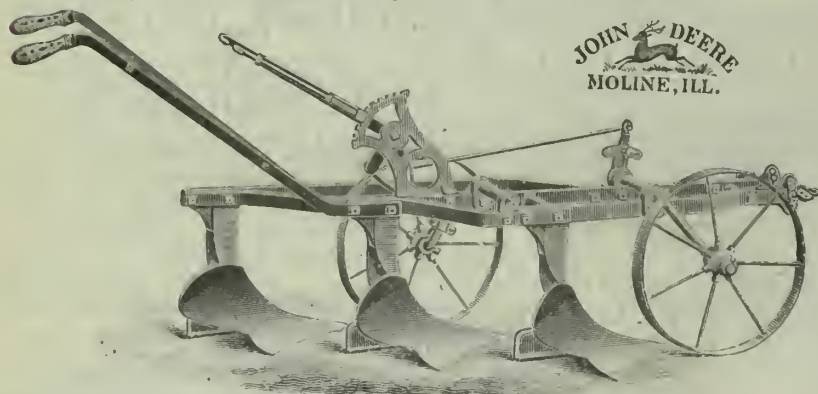
Manufactured by DEERE & COMPANY, Moline, Illinois, who never made a failure, or PUT UPON THE MARKET AN UNTRIED IMPLEMENT.



## STEEL BEAM VINEYARD AND ORCHARD PLOW.

STEEL OR CHILLED BOTTOMS.

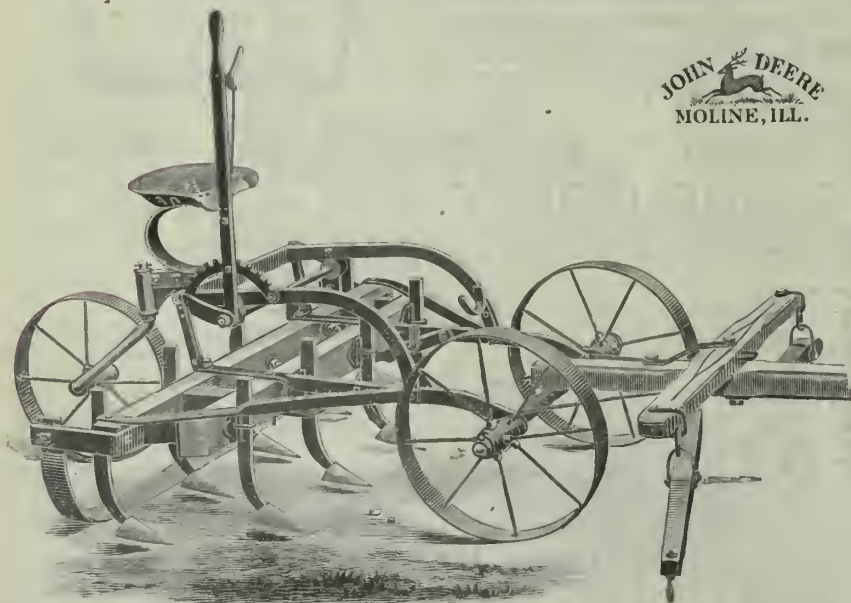
Adjustable Handles and Clevis. Sizes, 8 and 9-inch, with Steel Bottoms and 9-inch Chilled Iron Bottoms. A favorite with Vine Growers and Orchardists; also, Wood Beam Vineyard Plows with Chilled Bottoms.



## DEERE PONY GANG PLOW.

STEEL STANDARDS AND MOLDBOARDS.

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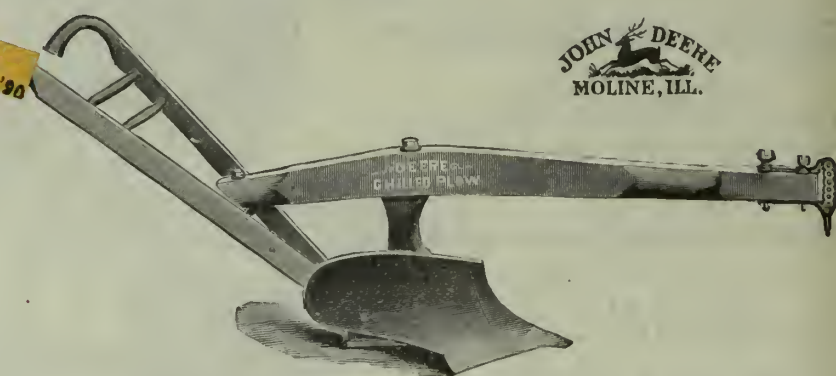
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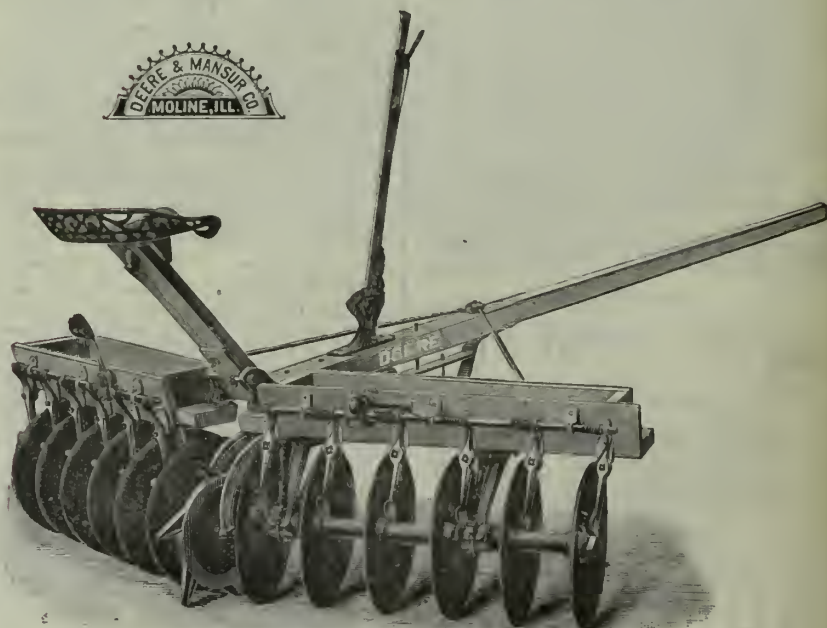


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A Trophy Won For California.

Now that the onward course of California bred horses is becoming more and more definitely determined, and each year's experience gives new proof of the wisdom of our breeders and the exceptional adaptations of our climate for the development of equine excellence, it is interesting to make more widely known a triumph of a California horse which is unique and significant. It is true that the event to which we shall allude has been previously given a certain amount of celebrity in other journals following special lines, but it has not before been adequately set forth for the entertainment of the general reader. For this reason we take it up at this time and by the aid of a new engraving in the highest style of the wood engraver's art, bring to the attention of our readers the notable triumph of a California horse.

Such achievements as that we shall describe do not redound alone to the profit or renown of the individual who produces a winning animal. They reflect credit upon the resources of the State and are of advantage to all engaged in developing them. All the famous winnings and the long prices commanded by California horses during the last few years declare indirectly the fitness of the State for the production of notable excellence in the domestic animals. Speed is only one measure of excellence, and by some rated as not the highest measure, and yet it is a popular standard and may be taken as the sign of other points of superiority and induce people to persevere in developing them. The fact that a California-bred horse, Anteeo, sold recently for \$55,000 at the East reflects credit upon Mr. Simpson as his breeder and declares again the wisdom of the Santa Rosa syndicate which paid \$10,000 for him a few years ago, but the fact has a wider significance which does not end with the breeder, the purchasers nor even with the racing interest. For this reason, though we do not profess to be identified with the turf nor experts in turf matters, we do not underestimate the importance which certain phases, at least, of turf affairs hold to the general producing interests of the State.

The handsome trophy of which we give a fine representation on this page was won in 1889 by Margaret S., a filly bred and owned by M. Salisbury of the Pleasanton Stock Farm Co. Margaret S. (2:12½) is daughter of the famous sire Director (2:17), dam May Day (2:30), by Ballard's Cassius M. Clay Jr.; 2d dam Kate by Hiram Drew. Margaret S. is now five years old and has a national reputation in trotting circles as the only winner of two rich classical stakes, by which she brought to her owner a trophy and purses of an aggregate value of \$14,238. These two stakes were: first, the "N. Y. Spirit's Futurity Stake," the cup valued at \$1000, which the engraving shows, and a purse of \$3738; and, second, the "Chicago Horseman's Great Expectation Stake" of \$9500. In the first stake there were 300 colts nominated and in the second 565 colts, the contestants in both classes being among the very best and fastest in the world. Entries to both of these stakes closed in the spring of 1886, and as Margaret S. was not foaled until August, 1886, she was nominated seven months before her birth. The great expectations of her breeder in thus "counting his chickens before they were hatched" were grandly realized, as events proved.



SILVER CUP WON BY MARGARET S, BRED BY M. SALISBURY OF CALIFORNIA.

As the races to determine the award of the stakes were to be held when the nominated colts were three and four years old, the events were not held until the years 1889 and 1890; but Margaret S. was not idle during the period she was awaiting the supreme effort to which she was destined before her birth. She showed quality as a two-year-old on California tracks, and in the early California races of 1889, she won the comment of "the gamest filly that ever appeared upon the turf." In August, 1889, she was taken East to appear in the first

of the two events already alluded to and was successful. The following year, 1890, she appeared again at the East for the second effort for which she was destined, and here, too, was successful. The detailed account of these two great races may be found on page 217 of this issue. Her achievements are of national as well as State importance, as it is stated that no horse on record ever won so much value in purses up to four years of age as has Margaret S. Would that the figure upon the beautiful one she won had been her portrait instead of

the conventional mare and colt of the silversmith, and yet the trophy is as beautiful as artistic skill could well make it, and will, no doubt, be long cherished by Mr. Salisbury as proof of his wisdom in indulging in "great expectations" with Margaret S. as the basis of his hopes.

**BET SUGAR.**—The annual meeting of the Western Beet Sugar Co., which is the name of the firm operating at Watsonville, was held on Monday of this week. The old directors and officers were re-elected, and these include Claus Spreckels as president, and W. C. Waters, superintendent, at Watsonville. An evening paper states that the reports of the operations for 1890 show that year to have been a very profitable one. The product of the factory at Watsonville was 2128 tons of sugar, which netted the company \$102 per ton. The profits of the year amounted to \$40,000. Dividends could have been declared, but it was decided to spend the surplus in improvements. The company owns a ranch of 1200 acres at Watsonville, all of which have been sublet to beet cultivators. A very large crop of beets is expected for this year. A railroad is being continued from the ranch to Salinas City, which will go through a beet-raising country.

**GRAPE DISEASES.**—For three years or more the U. S. Department of Agriculture has been engaged in the investigation of grape diseases, the object being to discover, if possible, cheap, practicable, and efficient remedies for such troubles as downy and powdery mildew, black rot, anthracnose, etc. A means of preventing all of these diseases has been discovered, and now thousands of grape-growers all over the country are saving crops which a few years ago were totally lost. Farmers' Bulletin No. 4, which will soon be issued by the Department of Agriculture at Washington, gives full directions for treating these diseases. It also describes the diseases in such a way that any grape-grower will be able to recognize them, and closes with full directions for manufacturing the remedies, and an estimate of the cost of the entire work.

**THE BIG-TREE RESERVATION TO BE CLEARED OF SETTLERS.**—Commissioner Groff's report and suggestions on the Kaweah Colony, in which it is proposed to permit the settlers to remain where they are, under specified conditions, on the ground that they would protect the big trees instead of destroying them, does not seem to please Secretary Noble. He will, it is said, prepare a statement claiming that the settlers cannot be tolerated on the reservation, and that if the law cannot reach them, he would recommend that their land be condemned and appraised and the colonists paid for their claims and improvements.

**THE LAW'S DELAYS TO BE REDUCED.**—A recent rule made by the United States Supreme Court will do much to prevent delays that have been vexatious and costly. It provides that all cases must be docketed within 30 days of the taking of the appeal from the decision of the lower court. Before this, litigants whose main motive for appealing a case was to gain time allowed months to go by after notice of appeal before they filed their papers. The rule will be a godsend to the court as well as to honest litigants, for it will reduce the calendar.



## FRUIT MARKETING.

### Fraudulent Trade in California Fruit at the East.

The following report upon facts previously set forth in the RURAL was submitted at the meeting of the Horticultural Society in this city Feb. 27:

To the California Horticultural Society:—Your committee to whom you referred the communication from B. M. Lelong, Secretary of the State Fruit-Growers' Convention, wherein he presented the remarks made at that convention by Prof. Chas. H. Allen, late superintendent of "California on Wheels," to the effect that very inferior and almost worthless dried fruit is being sold in the Eastern market under the fraudulent representation that it is California dried fruit, beg leave to report as follows:

The specific frauds injurious to the California dried-fruit industry which have been brought to our attention are the following: (1) The sale of dried Egg plums as Silver prunes, or "Egg prunes." (2) The sale of some undescribed sort of inferior dried plums as "California Spanish prunes."

It is unnecessary to say that there are no legitimate commercial figs known as "Egg prunes" or "California Spanish prunes." Any product sold under either of those names is fraudulent.

There are certainly other frauds practiced in connection with the prune trade, but in the absence of direct information in regard to specific instances your committee do not care to allude to them at this time.

In this connection it is proper to say that Messrs. Porter Bros., whose brand was seen by Prof. Allen upon the boxes in which the above-named fraudulent products were exposed for sale, indignantly deny any knowledge thereof, and have requested names and dates to enable them to ferret out and expose the perpetrators of a fraud not less injurious to them than to the fruit-growers of California.

It is of the utmost interest to every resident of California that its products shall bear a high reputation and bring a corresponding price in the markets of the world. The producers of our various commodities, each in his own department, are especially interested in the good reputation of the particular product by which he lives. In matters affecting the prosperity of any form of the fruit industry it is appropriate and desirable that this association, representing the fruit-growers of the whole State, should be prompt and active in practical well-matured suggestions for the general good.

As the quantity, variety and excellence of our fruit products increase, the temptation to and danger from fraudulent practices will increase also. These may be combated in various ways:

1st. By publicity. A sufficient sum spent yearly in advertisements in papers reaching both the dealers and consumers would doubtless destroy the sale of any specific products which could be denounced as spurious, but no funds being available for such purposes, your committee can make no recommendation in regard to it.

2d. By legislation; it should be made and punished as a misdemeanor in this State to sell any food product under a false name, or by any form of misrepresentation; but as articles of interstate commerce, the most efficient protection must come from national legislation. Your committee recommend that the secretary of this association be requested to unite with the secretary of the State Board of Horticulture in preparing a bill for preventing and punishing all forms of fraudulent practices in connection with the sale of dried fruits, and in connection with the secretary of the State Board of Horticulture to enter into and maintain correspondence both with members of the Legislature and with our senators and representatives in Congress, and to keep it up from year to year, if necessary, until the same is enacted into law, either as an original Act or as an amendment to some general Act for the suppression of fraud in connection with the sale of food products.

3d. By co-operation; the fruit-growers of this State, by intelligent co-operation, can do more than can be accomplished by all other agencies combined toward improving the quality of our products, increasing their reputation and protecting them from the fraudulent practices of unscrupulous men. If this co-operation is not secured it ought not to be the fault of this association, which can give no more effective evidence of its usefulness than by originating, and directing until self-sustaining, well-considered plans of this nature for the general good. Your committee believes that there is already in existence an incorporated institution, the California Dried Fruit Association, now dormant, but capable of being revived, and utilized, not necessarily as an agent for the sale of products, but at least for their inspection, grading and branding. Your committee believe this subject of sufficient importance to warrant the appointment of a special committee to consider upon and report to this association a plan by which such fruit-growers as desire to do so, may obtain the benefit of a uniform trademark, whose use shall be so guarded as to ordinarily insure honest and uniform description of the product sold under it, and detection, exposure and punishment of all who make fraudulent use of it, and we recommend the appointment of such a committee at this meeting.

We recommend that a copy of this report be transmitted by the secretary to the State Board of Horticulture, with the request that they co-operate with us in securing the State and National legislation above referred to, and that they direct their secretary to enter into correspondence in their name, with the persons and for the purposes above set forth.

We also recommend that the secretary of this society be requested to secure the publication of this report in as many newspapers as possible, and that the directors of the society be requested to have 1000 copies of this report printed and mailed to daily, horticultural and trade newspapers, and to our Senators and Representatives in Congress. All of which is respectfully submitted.

A. L. BANCROFT,  
EDWIN F. ADAMS,  
J. L. MOSHER,  
Committee.

S. F., Feb. 27, 1891.

The report was favorably received by the society, and the following committee appointed in accordance with its recommendations: Edwin F. Adams, J. L. Mosher and S. J. Stahler.

### The West Side Santa Clara Fruit-Growers Organize.

The West Side Fruit-Growers' mass meeting was called to order on Tuesday afternoon at 2 o'clock, at Cupertino hall, by E. T. Pettit, who was elected president of the meeting. C. A. Braun was secretary.

S. P. Saunders stated the objects for which the meeting was called. He referred to the action of the canners and packers, and to the contract they have prepared and under which they propose to do business. He said that contract is objectionable to the growers, and they proposed to formulate a plan which will make it unnecessary to sign such a contract. He declared that heretofore the canners and driers have been acting as individuals, but now they are acting as a body; that the every-one-for-himself period has passed for the growers, and they must now combine to protect their own interests, and, if possible, do business independently of the canners' and packers' combination; that heretofore they have had business tact enough to enable them to buy and improve their orchards and raise a good quality of fruit, and now they should unite and dispose of it to their best advantage.

A committee of seven was appointed to formulate a plan of action as follows: S. P. Saunders, S. Lydiard, A. R. Wood, Daniel Solvely, D. W. Miller, E. G. Hall and D. H. Blake. They retired for consultation.

L. J. Lathwesen, representing the Canners' Combination, then addressed the meeting, saying that not one of the canners was compelled to abide by the contract, and that no combination could be made strong enough to fix the price of fruit; that the combination only wanted to fix the grade so as to know what could be called first, second and third quality of fruit; that the buyers this year will buy graded and ungraded fruit, and have not combined to fix the price.

J. R. Johns asked why they had adopted a contract if they did not propose to use it.

J. B. Kerwin asked when the Committee on Contract Distribution, of which Mr. Lathwesen was chairman—was created, was it not after the fruit-growers had began discussing the contract? These and several other questions were answered in an unsatisfactory and evasive manner.

Wm. Holburn said that the viticulturists had been crushed by a similar combination, and if the fruit-growers did not protect themselves, they would soon be in the same fix. J. R. Johns sarcastically asked if it was necessary that the combine should manage the growers' business, and if it was organized only in the growers' interests it seemed strange they should want \$5 per ton for grading fruit.

The Committee on Plan of Action being ready, offered the following report:

"We, your committee, recommend the formation of a joint stock company to be called the West Side Fruit-Growers' Association of Santa Clara valley; its object being to buy and sell green, dried, canned, evaporated or otherwise preserved fruit, or other orchard products; also, to can, evaporate, or otherwise preserve fruit or other orchard products; that the place of business shall be Santa Clara and its existence 50 years, to be governed by a board of seven directors, and have a capital stock of \$100,000, divided into 4000 shares of \$25 each."

The report was taken up section by section, and after considerable discussion was adopted except as to the place of business, which was left open, some preferring Lawrence station.

J. R. Johns wanted the shares placed at \$1 each, so that all the growers in the county could get in.

A. R. Woodhams wanted it confined to the growers on the west side of the valley, as they produce a choice article of fruit.

Wm. Holburn said that he understood other and similar organizations were being talked of at Campbell and Berryessa, and they could combine with them if necessary, but he wanted this organization for the growers of the west side of the valley.

A committee of five, as follows, Geo. Glendenning, W. A. Brownlee, William Holburn, S. Lydiard and Geo. Daggett, was appointed to solicit subscription to the stock.

Five thousand dollars was subscribed in a few minutes by the following persons: E. A. Wheeler, D. H. Blake, S. Lydiard, Geo. Daggett, Mrs. E. McLeod, Morgan & King, Chas. J. Gibson, Edwin G. Hall, J. R. Johns, W. K. Bennett, D. W. Miller, A. W. Crow, J. E. Abbott, J. W. Stewart, J. C. Murphy, A. L. Harrison, J. W. Beach, Wm. Parsons, Nancy Lillock, J. S. Frost, H. A. Lillock, J. G. Glendenning, J. W. Fowler, Geo. M. Crittenden, A. R. Woodhams, A. M. McGlinchy, Milton L. Hersey, Theo. Hersey, S. P. Saunders, G. W. Glendenning, S. S. Hayner, E. T. Pettit, L. A. Brann, J. D. Brownlee, F. L. Saunders, Fred W. Tantan, Morton Bros., H. B. Schutte, W. W. McKee, Geo. A. Daggett, John G. Gasmann, Wm. Holburn, Philo Hersey.

A committee, consisting of S. P. Saunders, J. R. Johns, E. G. Hall, J. C. Murphy and D. W. Miller, was appointed to prepare a code of by-laws.

The meeting was large and very enthusiastic, and it adjourned to meet at the same place Tuesday afternoon, March 10th.

It is expected that the association will buy a lot at Santa Clara and erect a warehouse for handling the fruit of the stockholders.—San Jose Herald.

## HORTICULTURE.

### The Apple in California.

[An essay read at the February meeting of the State Horticultural Society by LEONARD COATES of Napa.]

Although the apple has never received the same attention that has been bestowed on many other fruits, it still remains in many respects the most popular, or we might almost say, utilitarian of fruits. It has been a sorely abused fruit, crowded to the wall by its more aristocratic neighbors, the peach and the apricot. The oft-repeated assertion that the California apple will not hold a candle to the Eastern article, might well have smothered what little life was left to the industry, yet, like Banquo's ghost, "it will not down."

But is the California apple so inferior to that of New England after all? The mere affirmative assertion is much too broad. It must not be supposed that the apple will be a perfect success grown alongside the apricot, the raisin-grape, or the orange. The Baldwins and Spitzenbergs, planted many years ago in the warm valleys, are said to be a failure, because they are in no way identical with the same varieties grown in New York State. We are gradually finding out the adaptability of the varied soils and locations to the very varied fruits that are grown here, and while the talk has for years been of prunes, of peaches, of apricots and grapes, a steady, though not very extensive, planting of apples has been going on, near the coast, from Humboldt to San Diego, in secluded spots in the Coast Range, and in the foothills of the Sierra Nevada mountains.

The product of orchards thus planted, with proper care, is unexcelled in both quality and appearance, and is very remunerative. An instance in point will show what a deep-rooted prejudice and a strong imagination will do. Mr. Hunter, of Santa Barbara, has upon his ranch in the Montecito, a large apple orchard. A gentleman from the East called at his country home, and, in discussing the fruit interests of Southern California, he admitted the excellence of our citrus fruits, "but," said he, "California can't grow apples. I've not found an apple fit to eat since I came into the State. It takes the East to grow an apple worthy of the name." "That's so," responded Mr. Hunter, with apparent heartiness; "let me bring you in some Eastern apples." Accordingly, he went out, and soon returned with a dish of great, rosy-cheeked apples, which he set before his guest. The gentleman was not slow to help himself to the tempting-looking fruit, and, after eating a few mouthfuls, he exclaimed, delightedly, "A real, genuine New York apple. I should know it anywhere. Must cost you something to bring such fruit here. What variety did you say it was?" "It's a seedling," replied Mr. Hunter, "grown right here in my own orchard, and I challenge New England to produce anything better in any of her apple orchards."

In 10 or 15 years from now the State of California will produce in great quantities for export what are now in but very limited supply, apples that will command the admiration of any market. And they need not all be of what are known as the old standard sorts, for many newer varieties better suited to a mild climate are being introduced from the Southern and Southwestern States, and we are originating a number of seedlings, which are peculiarly suited to our climatic conditions. The best of these are fully described in Wickson's "California Fruits." These seedlings and the many others yet to come may eventually supersede all others.

Passing by any particular mention of soils and locations for an apple orchard, as the beginner's only safe plan is to follow the footsteps of an already successful grower, a few words might be said regarding the stock on which the apple is grafted or budded.

Ordinarily, the seedlings are raised from miscellaneous seed taken from the pomace of the cider-mill. In this case, as a means of prevention of the woolly aphis, it is strongly recommended that the whole seedling, at time of transplanting, be immersed in a strong an-in-

secticide as the plant will stand without injury. Nurserymen frequently have to destroy whole blocks of apple trees, apparently healthy, but which are found to be infested with this pest on digging them. It is one of the most difficult of pests to eradicate, owing to the marvellous rapidity with which it spreads both below and above ground.

It is pretty generally known that several varieties of apples are "aphis-proof," among others, the Northern Spy, Rawley's Janet and Golden Russet. Seedlings should be raised from such varieties exclusively, and so used as a stock on which to bud the desired kinds; if grafted, care should be taken that no roots are allowed to grow above the graft or from it. It may be asked, why are not these seedlings used? To which the answer is that the planting public offers no encouragement to the nurserymen to go to the much greater expense of procuring seed from individual varieties of apples. The cheapest tree is that which is invariably purchased.

Seedlings raised from the crabapple possess a peculiar hardness, and apples produced on them, from the bud or graft, are said to keep longer.

An apple orchard on robust, healthy stocks, should be planted 35 or 40 feet apart each way. When the apples are planted to correspond with stone fruits, it would be better to have them on the Dwarf or Paradise stock. For small plantings this stock should be used in preference to the other, producing fruit sooner, and not making so large a tree.

The most profitable apples to plant that are most widely known are Red Astrakan, Gravenstein, Maiden's Blush, Alexander, Hoover, Bellflower, Spitzenberg, Winesap, Smith's Elder, Jonathan and Newtown Pippin. Of course there are many others of more or less local reputation, equally as good or better, but one cannot go far wrong in planting any of these. The Red Astrakan and any other large, red, early apple, is an extremely profitable crop in the warm interior valleys, as the Sacramento valley. In this case, the fruit is shipped to points east of the Sierras.

The diseases of the apple are rather serious, but not, perhaps, more so than with many other fruit trees. The most formidable which attacks the life of the tree is that already mentioned, woolly aphis. If the roots are not perfectly clean at the start, and kept so while the tree is young, it is almost impossible to eradicate it when the trees become grown. Starting right, the subsequent treatment should be wood ashes dug about the roots, or, in less quantity, lime or gaslime. This is supposing trees grafted or budded on "prool" stocks are not obtainable. To rid the trees of the branch form of this pest, an insecticide as strong as the trees will stand should be used in the spring and repeated through the summer. To be the more effectual, it should be sprayed on the trees with as much force as possible.

The codlin moth is the great enemy to the fruit of the apple tree, the apple itself, and is successfully combated with Paris green, one pound to 200 gallons of water, kept well stirred while using, and applied as soon as the blossoms are fallen. As aids, the various forms of traps are indispensable, and the trees, boxes, packing-houses, etc., must all be kept scrupulously clean, that there be no hiding-places for the pupae.

The market for early apples is especially good for summer and early fall, only limited in a fresh state, while the late-keeping varieties of first class and of high color are greatly in demand for the local markets and for export trade to Australia, New Zealand, Japan, besides good markets nearer home. The summer apples are dried in large quantities, for which the market is very fluctuating at present, being governed by the Eastern output. If, however, the same care were taken with "evaporated" apples as is bestowed upon first class peaches, the demand would increase and prices would be better. The public in time will appreciate the good article. At present, however, the "dried apple" is the desiccated product of that noble fruit used in every stage from that of half-grown to over-ripe and wind-falls and wormy fruit. Then let the larger slices for facing be well bleached and the box filled with the cheap boarding-house horror, and the fraud is complete. No, not quite. It requires a label, "Alden's Extra Evaporated, Packed Expressly for Grah and Grind."

This is not a fancy picture; the facts are as glaringly true as those reported recently by Prof. Chas. Allen concerning plums and prunes falsely labeled.

The law should use its strong hand in these matters. Moral snasion, with the State's reputation as a text, is love's labor lost. In Canada it has recently been enacted that every package of canned fruit offered for sale shall have plainly affixed a label stating the name and address of packers or dealers thereof. Every person who does not so label his fruit, or who otherwise labels it wrongly in any way, is liable to a penalty of \$2 for each package so labeled. Some such law, rigorously carried out, would have some effect.

As to the profits of an apple orchard, the last season a number of contracts were made in the Pajaro valley by which the grower would net some \$200 per acre for a period of eight years. It must not be expected, however, that a mixed apple orchard, of varieties good, bad and indifferent, will do so well. Still, there are many instances of apple orchards doing better yet when the varieties were right and the fruit prime.



# THE STOCK YARD.

## Regulations Concerning Cattle Transportation.

In accordance with Section 7 of the Act of Congress approved May 29, 1884, entitled "An Act for the establishment of a Bureau of Animal Industry, to prevent the exportation of diseased cattle, and to provide means for the suppression and extirpation of pleuro-pneumonia and other contagious diseases among domestic animals," and the Act of Congress approved July 14, 1890, making appropriation for the Department of Agriculture for the fiscal year ending June 30, 1891, you are hereby notified that a contagious and infectious disease known as Splenic or Southern fever exists among cattle in the following described area of the United States:

All that country lying east and south of a line commencing at the southeast corner of the Territory of New Mexico, thence running northerly along the eastern boundary of New Mexico to the southwestern corner of the county of Cochran, State of Texas, thence easterly along the southern boundary of the counties of Cochran, Hockley, Lohbock, Crosby, Dickens and King to the one hundredth meridian of longitude; thence northerly along said one hundredth meridian to the southern boundary of the State of Kansas; thence easterly along the southern boundary of the State of Kansas to the northeast corner of the Indian Territory; thence southerly along the eastern boundary of the Indian Territory to the southwestern corner of the State of Missouri; thence easterly along the southern boundaries of the State of Missouri and the State of Kentucky and the State of Virginia to a point where said boundary is intersected by the Blue Ridge mountains; thence in a northeasterly direction, following said Blue Ridge mountains to the southwestern corner of the county of Madison, State of Virginia; thence easterly along the southern boundaries of the counties of Madison, Culpeper and Stafford; thence northerly along the eastern boundary of Stafford county to the Potomac river; thence following the Potomac river, southerly to the Chesapeake bay; thence easterly along the southern boundary of Maryland to the Atlantic ocean.

From the 15th day of February to the first day of December, 1891, no cattle are to be transported from said area to any portion of the United States north or west of the above described line, except in accordance with the following regulations:

1st. When any cattle in course of transportation from said area are unloaded north or west of this line to be fed or watered, the places where said cattle are to be so fed or watered shall be set apart and no other cattle shall be admitted thereto.

2d. On unloading said cattle at their points of destination, pens shall be set apart to receive them and no other cattle shall be admitted to said pens; and the regulations relating to the movement of Texas cattle, prescribed by the Cattle Sanitary officers of the State where unloaded, shall be carefully observed. The cars that have carried said stock shall be cleansed and disinfected before they are again used to transport, store or shelter animals or merchandise.

3d. Whenever any cattle that have come from said area shall be reshipped from any of the points at which they have been unloaded to other points of destination, the car carrying said animals shall bear a placard stating that said car contains southern cattle, and each of the way-bills of said shipment shall have a note upon its face with a similar statement. At whatever point these cattle are unloaded they shall be placed in separate pens, to which no other cattle shall be admitted.

4th. The cars used to transport such animals and the pens in which they are fed and watered, and the pens set apart for their reception at points of destination, shall be disinfected in the following manner:

(a.) Remove all litter and manure. This litter and manure may be disinfected by mixing it with lime, diluted sulphuric acid, or if not disinfected it may be stored where no cattle can come in contact with it until after December 1st.

(b.) Wash the cars and the feeding and watering troughs with water until clean.

(c.) Saturate the walls and floors of the cars and the fencing, troughs and shutters of the pens with a solution made by dissolving four ounces of chloride of lime to each gallon of water, or disinfect the cars with a jet of steam under a pressure of not less than 50 pounds to the square inch.

The losses resulting yearly to the owners of susceptible cattle, both in the interstate and export trade by the contraction of this disease from exposure in unclean and infected cars and pens, and by means of the manure carried in unclean cars from place to place, and the threatened prohibition of our export trade by foreign Governments because of the occurrence of this disease, have become a matter of grave and serious concern to the cattle industry of the United States. It is absolutely essential, therefore, that this cattle industry should be protected as far as possible by separating the dangerous cattle and by the adoption of efficient methods of disinfection.

A rigid compliance with the above regula-

tions will insure comparative safety to northern cattle and render it unnecessary to adopt a more stringent regulation, such as the absolute prohibition of the movement of southern cattle except for slaughter during the time of year that this disease is fatal.

Inspectors will be instructed to see that disinfection is properly done, and it is hoped that transportation companies will promptly put in operation the above methods. J. M. RUSK, Secretary of Agriculture.

Washington, D. C. Feb 5, 1891.

## ENTOMOLOGICAL.

### Spraying for Scale Insects.

[An essay read at the February meeting of the State Horticultural Society by HOWARD OVERACKER, Jr., of Alameda county.]

At our last meeting I brought a few branches that had been sprayed with different compounds, in order to show their effect on the scale which infests the orchards in our vicinity.

I am not an expert on bugs, and should not like to be judged a professor in that direction for a good deal; neither am I an expert on washes.

The scales we are troubled with are the Brown Apricot and Black. There is little difference in the two, and they are frequently found on the same branches.

Probably spraying is one of the most vexatious occupations that falls to the lot of an orchardist. As season after season passes and he finds his luscious fruit becoming more smutty and dingy, and sees his trees becoming stunted and full of dead twigs, he feels it is high time for preventive steps to be taken.

Several of his fellow-orchardists who have been spraying come before his mind, and he starts off to consult them.

On his way he meets a county commissioner, who informs him Greenbank insecticide is the only thing. As he is paid for being so smart, the orchardist feels confident his troubles are nearly over.

His next chat is with an orchardist who condemns insecticide in the strongest terms, and points to his ruined trees as the result. He is now using IXL, but it is a faith test and may take six months to determine results. His neighbor ridicules this, and is using caustic soda and potash, with occasional dainty touches of whale-oil soap, kerosene, metallic paint and cayenne pepper. Another wants him to try sulphur, salt and lime, while the next need it two or three years ago and pronounces it a failure. Next man says nothing in the world will kill them, and the orchards are gone up, and as he gets home he is informed the bugs have run their course and will soon be gone.

After allowing these mixtures to settle in his agitated brain, he skims off a coating of prejudice and ignorance, boils out a good share of conceit and bigotry, pours in some common sense, allows a good fraction for carelessness, and bravely concludes to experiment for himself.

We begin the season by saying, what shall we use? We try a dozen different mixtures, each time crying I have found it, and at the end of the season we still have the same cry, what shall it be? I at first intended to bring samples of all the results I had attained with the different washes, but afterward concluded to only bring the most important and tell how the rest worked.

The most highly praised and hardest pushed wash was the "I. X. L." We all thought well of it at first, and a great many bought it on faith. It was to kill in ten days or two weeks, so we started in, but at the end of that time no scale were dead, so many began to drop it. The agent then said it would take a month, perhaps, and then every scale would be dried up. So a few concluded to use up what they had purchased any way, but the scales are not dead yet, as you can see by the branch which I have; and they tell us we have to wait six months.

I have sprayed some trees two or three times, so the bugs have had the full strength of the wash, but as this is a "faith cure," we had better wait a time with patience before deciding whether it is a faith killer or bug killer. At present nearly every one in my section of Alameda county condemns it as worthless.

Next came a man with some black stuff, he would warrant to kill every scale, if I required him to warrant it. It was "Whale Oil and Iron Compound," and cost about five cents per gallon. "When ready to apply, send along a barrel," says I, but I did not get him to warrant it, and probably that was the reason it did not kill. It was very disappointing to buy such an expensive wash and obtain no benefit whatever; but I had the experience, which was worth something, and it taught me to let all such things alone until I had tried them in limited quantities and knew they were good.

Greenbank Insecticide.—The wash which has made sad havoc in our orchards this year is the Greenbank insecticide. It was tried last year, and though it burned the trees some, there were still enough buds left for plenty of fruit, and the scales were quite thoroughly killed. Many supposed it was used too late, and by beginning earlier, it would prove a good wash. Somehow this year it took hold stronger than last, especially on peach trees, and the crop of fruit is ruined and the trees badly burned. Apricot trees, we have found, are not so tender, though the limbs often die back when they are pruned, before spraying,

and the trees at present are running a great deal of gum. It is claimed this wash is simply caustic soda and potash, with a little arsenic added to make them mix. One lb. to 4 gals. is the strength it has been generally applied, while caustic soda and potash, applied 1 lb. to 3 gals., does not seem to kill any of the wood. Of the recommended washes, a mixture of caustic soda and potash was used last year and also this with fairly good success. Two-thirds lb. caustic soda,  $\frac{1}{2}$  lb. potash to 3 gals. of water, is strong enough. Probably no wash cuts the moss and cleans the old trees better than this. Old trees require stronger washes than young ones the first time.

As the wash does not kill quite all the bugs, a plentiful supply will appear each season at spraying-time, and require a repetition of the dose. For this season we are on the experiment to find a wash that will at least spread better than caustic soda and potash and if possible kill all the scale. When a tree is once clean we must then find a simple wash to keep it so, and we are all right. Many have an idea that yearly burning a tree with caustic soda and potash will cause it to be hidebound, and otherwise injure, but I have had no experience in that direction. The receipt given in *California Fruits*, page 545, I find better than simply caustic soda and potash. It is:

4-5 lb caustic soda (98) G. B.;  
 $\frac{1}{2}$  lb potash (commercial);  
 $\frac{1}{2}$  lbs. whale-oil soap to 6 gals of water.

I prefer to use:

1 lb. caustic soda (98);  
 $\frac{1}{2}$  lb. potash (Greenbank).  
 $\frac{1}{2}$  lbs. the best whale-oil soap to 6 gals. water.

Whale-oil soap is one of the earliest mixtures recommended for application on this scale, and yet in looking over all the books I have, I could not find a single definite receipt for its use. "A strong solution of whale-oil soap," is the way they usually would read, and one receipt called for a strong solution of whale-oil soap, with a little caustic soda added. Finding nothing definite and wishing to experiment, I applied whale-oil soap 1 lb. to 1 gal. to some peach trees. The result was marvelous in the way of killing scale; big and little alike seemed to yield to its powers, but fully one-half of the buds were killed also, as you may see by the sample branch.

Forty lbs. of whale-oil soap to 60 gals. of water has proved very beneficial and injured very few buds with a neighbor of mine, and yet his brother has badly burned some trees with about the same strength of wash, and the same whale-oil soap.

I next tried:

3 lbs. caustic soda;  
2 lbs. potash;  
24 lbs. whale-oil soap to 48 gals. of water.

This did not injure peach buds, but was not so successful on the scale either. Its work was very successful on apricots, and were it not for the trouble of dissolving the soap, and also for the great diversity of strength in which it is found on the market, I should feel quite safe with this mixture. However, the apricot trees have not blossomed yet, and serious injury may still show itself.

Sulphur, salt and lime was tried three years ago, and found of very little use. For some reason it was again tried by a number of small orchardists this year who were very careful about its preparation, but there are still a great many live scale on the trees and it is not considered a success.

Another experiment of which I to-day have a branch is, *Chloride of Lime*. One lb to six gals. This makes a cheap wash, and although there are still some scales on the tree, the owner claims a great many have been killed and have disappeared.

Insecticide W. O. soap was tried, but killed the buds.

This is about the end of the list, and although fully \$5000 worth of damage has been done with the different spray materials in the Niles district alone, we find ourselves without a complete solution of the scalebug problem.

As though orchardists were not doing enough, the State is considering a law by which an orchard may be quarantined if the owner does not spray. If the State would spend enough money to find a satisfactory wash, I guarantee there would be little use for a quarantine law. Besides the selection of a wash, I would say, if strong solutions are used, spray before you prune. Should the trees not be injured, I recommend close pruning, to be followed by any good methods which would keep the trees constantly growing.

As trees on irrigating ditches seem to have less scale than those on higher ground, plenty of water is suggested.

So long as trees are infested with the black or brown scale, some injury will appear to the fruit, but an observance of these rules will reduce the damage to a minimum.

It has been said that the most tangible results of the winter's spraying is dead trees, skinned noses, burned fingers, bad tempers and ruined clothes, while it is feared should the bugs form a "Scalebug Alliance," we could not kill them, no matter to what political party we belong.

ELECTRIC VS. CABLE.—It is stated that there are now in operation in the United States 260 miles of electric street railroads, which is five miles more than is operated by cables. There are five different systems of electric roads now in operation—the Thomson-Houston, the Sprague or Edison, the Short, the Westinghouse and the Roe.

# FLORIST AND GARDENER.

## Experiments With Sand in My Garden.

EDITORS PRESS:—I have just read the article in your last week's issue, written by J. B. Carr, on "Starting Tree Seedlings" in prepared sand.

He closes said article as follows: "Now, as eucalyptus seed most certainly germinates better in sand and manure than in soil, why will not all tree and vegetable seed that require transplanting start best that way?"

I was very much interested in what he wrote, as I have been experimenting for some years past with pure sand, as well as sand prepared in various ways, in order to satisfy my Yankee curiosity as to its value for potted plants, cuttings, etc., and intended in the near future, if success crowned my efforts, to give the readers of the *RURAL* the benefit of my experience. I know that there are a great many people, especially ladies, who find it very difficult to prepare suitable soil for potted flowers, and after taking a great deal of pains to make a compost that they suppose is suitable for their lovely flowers, soon find to their great surprise and sorrow that the soil hakes after being watered, and that their cherished plants do not flourish as they should, but make a puny and sickly growth. I am not at present fully prepared to write on this subject as I would like to, but owing to the article above referred to, just appearing, I thought perhaps it might be the most favorable opportunity for me to state a few of the experiments I have already tried, and the success that followed, as well as to speak of some experiments now under way which I may in some future article write about.

It is a well-known fact that the most successful florists use a great deal of sand, and if one will examine carefully the roots of plants sent to them by such persons, he will almost invariably find that the little compost that is still clinging to the fibrous roots is very fine, sandy, light and porous. Noticing this some years ago, it set me to thinking, and being a great lover of flowers and not having suitable soil for them, I determined to experiment and persevere until I secured it in some way. My first attempt with sand was with English walnuts. In the summer of 1888, having a few barrels of sand left after plastering my house, I planted them in a long box about ten inches deep filled with this sand, which came from Vallejo, and I suppose from the ocean beach. I took great care to always keep it moist and sprinkled it a number of times with weak liquid hen manure. Early in the spring they commenced to come up nicely and made a rapid growth. I found on transplanting them to my nursery rows that but very few nuts had failed to germinate, while some of the same kind of nuts, planted at the same date as the others in good garden soil, mostly rotted.

Last spring I obtained a lot of fine sand from the creek and mixed it with one part of very fine and thoroughly rotten cow manure to three parts of sand. I then took coal-oil cans, cut out the top and planed some pine or redwood slats as wide as a lath and three-fourths of an inch thick. These I cut exactly the width of the can and nailed two of them on the outside, opposite each other, with inch wire nails driven from the inside of the can. By this method they projected nearly one-fourth of an inch through the wood, just enough to clinch nicely. I then nailed, on the other two sides, planed laths of suitable length to come flush with the ends of the other pieces and secured them there with two-inch wire nails and half-inch wire nails in the middle, clinching them in the same manner as the others. This made a stiff, strong can. I painted them both inside and out and made holes one-fourth of an inch in diameter at each corner and in the middle, on all sides and just at the bottom of the can inside. In this way I find the drainage is much better than where they set on the ground. I then put in an inch or two of rather coarse burnt bones, with the addition of charcoal I sift out of my ashes. I then filled up the cans with my prepared sand, well settled down to within two inches of the top, and planted several kinds of lilies. I never had lilies do as well before, and they were admired by all who saw them.

In July last, I took a cutting of geranium and put it into the Vallejo sand without manure. I kept the can in the shade for two or three weeks, taking great care to keep the sand a little moist. I also watered it four or five times with liquid manure sams as I applied to the English walnuts. It made a better growth than any other geranium cutting I planted, and I had prepared soil of several different kinds for them.

This season I expect to have at least 20 different kinds of chrysanthemums which I shall plant in coal-oil cans in sand prepared as for the lilies before referred to. I have already succeeded in raising a fine lot of chrysanthemum rootlets in this prepared sand, as well as having started a fine lot of outtings of different kinds—daisies, pansies, etc. I have also at the present writing growing in this sand a nice lot of cabbage and lettuce plants, also onions raised this year from seed, which I shall transplant as soon as the weather permits. I am not yet done experimenting. I like it, and I am continually at it and have been amply repaid for all my pains.

IRA W. ADAMS.

Bay State Garden, Calistoga, Cal., Feb. 23.



## PATRONS OF HUSBANDRY.

In our Rural Press Official Grange Edition, issued every week, will be found additional matter from this and other jurisdictions, of interest and importance to Patrons. Any subscriber who wishes can change free to that edition.

### The Master's Desk.

R. W. DAVIS, W. M. S. G. OF CALIFORNIA.

Do you notice the effort to cut down the appropriation for public schools in California? Keep an eye on the man who wants to cripple the free schools of the land! The Grange is for education. It is one of the cardinal virtues of Patrons of Husbandry. Look well to the school!

What is there to hinder a Grange in beautiful Napa? The first session of the California State Grange was held at Napa City, beginning July 15, 1873. It seems more than appropriate that Napa Grange, No. 2, P. of H., should reclaim its charter. Won't some of its former members make an effort? The State Grange will furnish help at any time.

More men with pure manhood, more women with perfect womanhood, and the Grange will be more powerful and more useful. The present membership is of excellent material, but we want more members. Call on your members to bring in applications for membership. Worthy Master! Swell the list of your Grange; let the harvest in the Grange, during 1891, be the largest for many years!

Study your ritual! It has beautiful thoughts that may have escaped notice. Every degree teaches more than you think. No one but can be benefited by knowing and practicing the lessons of our ritual and the precepts of the Order.

For our business interests, we desire to bring producers and consumers, farmers and manufacturers, into the most direct and friendly relations possible. And this is what the Executive Committee of the California State Grange has been doing lately. Subordinate Granges will be fully advised at the earliest possible moment. If you are a member of the Grange, attend your Grange meetings and find what has been done. If you are eligible to the Grange, better join, and then you can find what has been done. It will pay you to investigate before doing anything. See what the Grange in California has done for the farmers who are members of the Order.

The Oregon State Grange meets the fourth Tuesday in May. An effort is making to get up an excursion of Patrons to attend that session. Do you want to go? Already quite a number have said "yes." It will be a nice time of the year, and a splendid place and hospitable people to visit. More anon on this subject.

And now for the Juvenile Granges. The rituals have been ordered. Who gets the first Juvenile in California?

The Grange work is for the present and for the future. Judging from the way the present Congress and the present Legislature have thus far legislated, as against the industrial interests of this State, it seems we will have considerable work to do in the immediate future. The days are not far distant when the halls of legislation (county, State and Nation,) will be honored and ornamented by men who will be willing to pass a few laws, at least, in behalf of those, who by the sweat of their brows, and the use of their hands, are developing the resources and enhancing the values of this nation. The handwriting is on the wall, and those who have wantonly ignored the petitions, letters and requests of the industrial interests of this land, may well seek shelter from the political storm-cloud that is now to be seen in several sections of this fair land. Already, rumblings of this concentrated cyclone, this desire to be free from the tyranny of political sharps, bosses and falsifiers, is plainly audible. Let him who wants to see this Nation and this State prosperous, keep a list of the votes cast in Congress and at Sacramento. These same men will soon want your votes again. If they have been faithful in these places, we can afford to make them rulers over many interests. Otherwise, let's give them the "grand bounce."

Bro. Milton Trusler, Worthy Master of Indiana State Grange, has thanks for a neatly bound copy of the interesting proceedings of the 20th annual session of the Indiana Patrons. There is much to interest, and many things to increase a Patron's love for the Order, to be found by a careful perusal of the essays, reports and addresses delivered at the session.

Every Patron in California will be pained to hear of the illness of Bro. C. J. Cressey, the Worthy Treasurer of the California State Grange. There are thousands of sturdy farmers whose hearts throb for the good brother. We all sincerely hope and earnestly pray that he will soon be restored to his former health. We need him so much right now. Let the prayers of the members be for the brother who is the noblest type of man, and may we soon see his earnest, honest face, hear his instructive

word, and feel his hearty handshake, as in the days agone.

New York State Grange has gained 8000 members during the past year, so we learn from the able address of Worthy Master W. C. Gifford, of that Grange.

Bro. J. E. Blackford, Master of the State Grange of Iowa, has placed us under obligations for a copy of his annual address, and for the bound copy of the Journal of Proceedings of the late session of the Iowa State Grange. Thanks, Bro. B. Keep the Grange sails well spread in our native State and oh! give!

Let your subordinate Grange be a lamp to the community in which it is located. Then remember, too, that the lamp will give no light unless it is filled with oil. It must be trimmed now and then; it must be lighted and must not be put under a bushel. These things require effort. You, reader, have a part to do; a work to render; a responsibility to meet. Do you furnish any of the oil? Do you trim the wick now and occasionally? Do you light the lamp, or place it in position where your neighboring farmers can see its rays or feel its heat? Do you speak a good word for the Grange, or ask some one (eligible) to join in the work of helping the farmer in his fight? Do you? If not, please "fall to" and help increase your Grange in strength, in numbers, and in influence.

Prudence is everywhere a valuable article. Keep some of it in your "stock on hand." The assessor will not ask you to put it on his list. The doctor will not censure you for being possessed of prudence. The lawyer admires the prudent man. The preacher knows the prudent person is not far from the straight and narrow way. Even the politician respects the prudent citizen; and for the woman, what is more to be admired than her prudence? Let's be prudent at all times, in all things and with all persons.

### The Legislature.

At our writing on Wednesday, it would seem that the present session of the Legislature was likely to be ended with very little legislation of benefit to farmers or any other industrious people in the State. The bill for paying taxes semi-annually has been secured, but most of the other bills recommended by the Grange and Alliance have been effectually killed by some of the most unscrupulous leaders and followers in both branches. A second Mutual Fire Insurance bill is still pending action, also the Australian Ballot law. The dastardly political leaders in the Assembly are having a harder time than they expected, no doubt, in slaying the Ballot Reform bill, or it would have met its fate before this. The action of some of its notorious opponents should assign them to political oblivion, whether they succeed in thwarting the will of the people this time or not.

We are glad to learn that Bro. J. D. Huffman, who is doubtless working with the Legislative Committees of the State Grange and Federated Traders, is evidently having some salutary influence against the high-handed schemes and preposterous maneuvering and lying of San Francisco's shameless leader and his associates in the Assembly.

### Kibesillah Grange.

EDITORS PRESS:—We had a very pleasant meeting on Feb. 7th. We had five applications come in, which were given over to the Committee on Candidates to report at the next meeting, but it was so stormy that we could not meet.

Our next meeting will be March 7th. We have good officers this time for our leaders, and with the harmonious action of all other members this will undoubtedly be a good year for Kibesillah Grange. It is a lamentable fact that in our Grange there are members who have ideas, but through disinclination to speak or some other cause they will not express themselves. This is not right. Each should do his or her part for the Grange.

We would like to know about co-operation in buying and selling, as the farmers want to know what benefit there is in the Grange.

We are very thankful to the Worthy Secretary S. G. for the Journal of Proceedings of the State and National Grange. They are the only proceedings we have had since last summer. We have had no other communications whatever to work on.

We had a very heavy storm last Saturday. The farmers have finished seeding in this section. The grain which is up is looking well.

Yours fraternally, WM. TAYLOR,  
M. Kibesillah Grange.

### Land Laws Repealed.

WASHINGTON, March 4.—Commissioner Groff of the General Land Office to-day sent to all the Registers and Receivers of Land Offices the following telegram: "The Timber Culture and Pre-emption laws are this day repealed. Allow no further entries thereunder of claims hereafter initiated."

NOTICE will probably be given next week calling for a meeting of Grange and Alliance representatives, concerning a Farmers' Institute organization in Alameda county.

### Free Coinage of Silver.

EDITORS PRESS:—This question is now much discussed both in Congress and by the people through the medium of the public press. The proper settlement of the question is one of vast importance to the prosperity of the people. The monometallists contend that the effect of the free coinage of silver will be to force gold out of circulation, raise the cost of the necessities of life and consequently depress the wages of the laboring class, will paralyze the industries of the country and work destitution generally.

If such would be the effect of the free coinage of silver, then let us adhere to monometallism by all means. But would the free coinage of silver have the effect on the country predicted by the monometallists? Would gold be withdrawn from circulation? It is easy to make assertions, but unless they are supported by valid arguments, assertions ought to count for naught. How can gold be retired? Only by

#### Its Withdrawal from the Country.

And this can only take place through the commercial exchanges. When the exports of the country equal or exceed the imports, all foreign debts are settled by produce bills of exchange, and no gold is exported to settle balances. It is only when the imports of the country exceed its exports that gold will be required to settle balances, and this condition of our foreign commerce now seldom occurs. The balance of trade has almost constantly for a long period of years been in favor of the United States, and when, as has sometimes happened, the balance of trade has been sometimes against the country, such a balance has to be settled by gold. But gold is a product of the earth in the United States, just the same as wheat or corn, and enough of this metal is produced annually in the United States to much more than settle occasional deficits in the commercial exchanges of the country. There is

#### More Gold in Our Country

At the present time than ever before. It cannot be retired except by returning it to the earth from whence it was mined, free coinage of silver notwithstanding.

But it is asserted that the free coinage of silver will invite and draw to our country all the silver of the world to be coined and exchanged for our gold. What nonsense! Silver as a commodity or bullion will seek, as it always has, the best market, whether that be London, Paris or New York. Foreign silver coin is, and always has been, treated in the United States as bullion, and it is not contemplated by the friends of free coinage to open the Mints of the United States to the free coinage of foreign silver bullion. So much for the claim of our gold reserves being absorbed by the free coinage of silver. For the purposes of domestic exchange, silver of United States coinage is just as valuable to the people as gold, and a silver certificate based on silver coin is just as valuable as the coin itself, hence just as valuable as gold.

In 1873, silver dollars, by the Bland law, which provided for their coinage to a limited amount, were made a

#### Legal Tender for All Debts.

Public and private. It was contended and predicted, just as it is to-day, that the legal-tender silver dollar would supplant gold coin. But it did not. Gold, as every intelligent man knows, continued just as plentiful and more so than before the enactment of the Bland law. Grocers' bills, hardware bills and hardware bills ceased to be made out payable in gold coin only. Instead of gold being retired from circulation by the Bland bill, the gold broker was retired. No longer could he buy a silver dollar for 90 cents in gold. The laboring man, when paid in silver on a Saturday night, as he usually was, no longer had to seek the broker and submit to a discount of eight or ten per cent on his silver before he could make it available for his purposes.

The free coinage of silver would stimulate to increased activity the silver mines, and improve and promote domestic trade and industries, without detriment to our foreign trade or commerce. Gold would not be retired any more than it is to-day. The quantity of our circulating medium would be increased and the general welfare of the country promoted.

WM. C. BLACKWOOD.

Haywards Feb. 27, 1891

### Rhode Island State Grange.

The fourth annual session of this Grange was held at Providence, Jan. 20 and 21. Worthy Master Peckham delivered an able address which commanded close attention.

The following officers were elected for two years: M., Andrew M. Belcher; O., Arthur W. Brown; L., A. A. Smith; S., A. A. Sherman; A. S., A. Hoyle; C., Mrs. G. M. Carpenter; T., Benj. Martin; Sec., N. T. Reynolds; G. K., D. J. Mantion; Ceres, Mrs. M. D. Burdick; P., Mrs. A. T. Hoxie; F., Minnie Fenner; L. A. S., Mrs. A. W. Tefft.

We are indebted to the Providence Pomona Progress for the above.

EDEN GRANGE last Saturday, we learn, appointed a Committee of Conference on State Grange meeting. Also requested Judge Blackwood to meet with the Presidents of the sub-Farmers' Alliances of the county, in consultation for organizing a Farmers' Institute.

### Railroad Lands Are Taxable.

Several weeks ago, the Attorney-General was asked by the District Attorney of Siskiyou to decide whether railroad lands and lands sold by the railroad are assessable, the railroads and the purchasers holding that these lands could not be assessed because no patents were issued for them by the Government. The Attorney-General's decision is against the railroad and the purchasers, and unless overthrown will compel the company to pay tax on 10,000,000 acres of land, much of which is worth \$5 per acre, and to compel all persons who have bought lands from the railroad to pay for them.

The taxes to be thus gathered by the State and counties will amount to more than \$500,000 per annum in the aggregate. According to the Attorney-General, the railroad will be compelled to pay two-thirds of Siskiyou's taxes. Following is a synopsis of the opinion, which covers 60 pages:

First—That all property in the State not exempt under the laws of the United States shall be taxed in proportion to its value, to be ascertained as provided by law.

Second—That the State of California has no power to tax the property of the United States within its limits.

Third—Where the right to a patent has once become vested in a purchaser of public lands, it is equivalent, so far as the Government is concerned, to a patent actually issued. The execution and delivery of the patent after the right to it has become completed are the mere ministerial acts of the officers charged with that duty.

Fourth—The grant made to the Central Pacific Railroad Company by the Act of July 1, 1862, United States Statutes, Volume 12, page 489, and amendments thereto, and the grant made to the California & Oregon Railroad, by the Act of July 25, 1866 United States Statutes, Volume 146, page 239, were to aid in the construction of the roads, and when the routes of the respective roads became definitely fixed the sections granted by the respective Acts thereupon became susceptible of identification and the title attached to them took effect on the date of the respective grants so as to cut off all intervening claims. Thereby the lands became the property of the railroad companies and there was nothing to hinder their use and enjoyment, and it was immaterial whether the respective companies then had the legal and indefeasible title to the lands or merely the equitable title to them, to be subsequently perfected by patents from the Government, and from that time the same were subject to taxation.

Fifth—A legislative grant of public lands is the highest monument of title, and is not strengthened by a subsequent patent on the same land.

Sixth—That so far as said Acts of Congress relate to indemnity lands to be given to the railroad companies, no title to such lands became vested in the companies until the selections were made and approved, as provided by the statutes, and upon the making of such selections the lands thereupon became the property of the railroad companies and subject to taxation, whether or not the United States patents had been issued.

Seventh—That where Congress has prescribed the conditions upon which portions of the public domain may be alienated, and all such conditions have been complied with and the tract to be alienated is distinctly defined, and nothing remains but to issue the patent, then the donee or purchaser is to be treated as the beneficial owner of the land, holding it as his own property subject to State and local taxation.

Eighth—Whenever the title to Government land becomes vested in a person or corporation, the United States only holds the legal title in trust for that person or corporation, and such property ceases to be the property of the United States and is subject to State and local taxation; that an equitable title determines the ownership without respect to the legal title within the meaning of the Constitution of the State of California; that lands shall be assessed to the owner.

Ninth—Whenever a purchaser of Government land has paid for the same, and a certificate of purchase has been issued thereon, the land is subject to State and local taxation before the issuance of patent.

NOW HOPELESSLY ILL.—We are extremely sorry to learn by letter of March 3d that Bro. C. J. Cressey has been growing still more feeble. His recovery is hopeless, and the delicate thread of his earthly life seems likely to be severed at any moment. Thoughts of our dear brother's sick bed and afflicted family are indeed painful to all who have intimately known him in his kindness and sincerity of heart and mind.

FARMERS' INSTITUTE.—It is quite possible that a Farmers' Institute of two or three days' session may be held in Fresno City the first of April, under the auspices of the Fresno County Farmers' Alliance. The regents of the State University are expected to provide from the agricultural department of the university one or more professors to lead in the work of the Institute.—Fresno Californian.

THANKS to Henry E. Loomis, Secretary, Glastonbury, for copy of the Proceedings of the Sixth Annual Session of the Connecticut State Grange, P. of H., held at Bristol, Jan. 13 to 16, 1891.



# FARMERS' ALLIANCE.

SUBSCRIBERS wishing fuller information of the Alliance can have their names changed to the Grange Edition of the RURAL PRESS free, much to their advantage, this department being continued in the same.

From National Organizer Barbee.

A Lecturer on the Wing.

SELMA, Feb. 26, 1891.

EDITORS PRESS:—Notwithstanding the rain, snow and mud, I had a good full meeting at Soledad, Monday last. Equity Alliance No. 8, at Soledad, has completed plans for its two-story building in Soledad. It will be a good and substantial building. Hall upstairs and business room below.

Monterey and San Luis Obispo counties are alive and pushing things right along. These two counties will soon have a splendid

Joint Co-operative Roller-Mill.

The enterprising little city of San Miguel has outbid her competitors and secures the mill at that point. This is a step in the right direction. Let other wheat-growing counties in the State see their interest as these counties do, and go and do likewise.

I left on the 1 P. M. train for Gilroy, where I staid Monday night. The thunder, lightning, rain and wind prevented a big turnout, but much good was done in the name of the Lord (Alliance).

A telegram from Frank P. Cook informed me that the Sacramento County Alliance could not convene at Enterprise on the 26th and was set for March 3d at Elk Grove; so I went directly to Modesto, where I found

Another Live Working Hive of Alliance Bees.

I was taken out to Bro. Bangs' by Bro. Caldwell, where I staid till yesterday afternoon. Bro. B. is a noble specimen of manhood, with a heart as big as a cart-wheel. His excellent wife and two lovely and intelligent daughters, with their delightful music, made my visit a most pleasant one indeed.

Last night I met with the Modesto Alliance, with Bro. Beard in the chair. After he opened the meeting in due form, he introduced me to his members (a good big attendance), and I proceeded to give them the new work. Giving this county the advantage of the last day at Sacramento. makes them the best posted county in the State. Miss Susie Bangs had the work perfect with one rehearsal of ten minutes, which in a work of six years has never been done before.

My meeting from 10 to 1:45 in Modesto today was the best and most enthusiastic of any I have yet seen, and the material of Stanislaus County Alliance is a credit to any county. The more I see of the brain that composes the Alliances of California, the prouder I am to know I inaugurated the little insignificant beginning of this noble work with only eight members less than 10 months ago, and find in so short a time, in a night as it were,

Thirteen Thousand Full-Grown Jonah's Gourds,

All chock full of well-watered seeds that are spread all over the State, and which are destined and bid fair with the glorious season we are having (it's raining again) to produce the biggest crop by '92 ever harvested by hayseeders.

Please find the cash and names of nine new subscribers for the RURAL. Let every gourd in Jonah's vine subscribe for the RURAL PRESS. It will help increase the crop wonderfully. More as I go along. J. S. BARBEE.

## Who Owns the Legislature?

Some time ago the Times stated broadly that the sitting Legislature was a thoroughly corporation body, which more particularly meant that it is completely subservient to the Southern Pacific Co. Last week both houses of the Legislature furnished unmistakable proof of the truth of the Times' assertion.—*Sacramento Bee*.

The Humboldt Times, a leading Republican paper, is the party that plaintively asks, who owns the Legislature? This one is said to be so cheap that almost anybody might afford the luxury.—*Colusa Sun*.

We make the prediction that the Farmers' Alliance will own the next legislative session in this State, and that its action will not be controlled by corporations.—*Marysville Democrat*.

A SUB-ALLIANCE has been established at Table Bluff, Humboldt county, with the following officers: T. J. Knight, Pres.; A. Fitzsimmons, Vice-Pres.; A. A. Linton, Sec.; E. Clark, Treas.; Mrs. T. J. Knight, Chap.; Thos. M. Naughton, Lect.; A. Knight, Steward; W. Tierney, Doorkeeper; Frank Knight, Assistant Doorkeeper.

FARMERSVILLE ALLIANCE, Tulare county, gave a hall on the evening of Feb. 27th, to raise funds for the purpose of buying an organ. The hall will be entirely remodeled, making it one of the most comfortable and attractive meeting-places in the county.

JOHN R. SMITH of Humboldt county has been elected Alliance Lecturer and Organizer by the County Alliance of that county. Those within that jurisdiction desiring to organize should communicate with him. Address, Bay-side, Humboldt county.

## A Suggestion to the Farmers' Alliance.

A farmer called the attention of the Times this week to the fact that the Southern Pacific railroad had charged him \$125 to bring a harvester from Stockton to Visalia. He said it required but one car for the service, and that on many other classes of freight the rates were much less. He thought the Railroad Commission should look into the matter and prevent the company from robbing the farmers.

Another farmer, who does not believe in sitting quietly down and submitting to extortionate charges, even from the railroad company, said that last year he had some freight that he wished hauled by the railroad, and upon ascertaining the rate, concluded that it would be more than he could afford to pay. He hitched up his own team and hauled it himself, making on the trip, at the rate the company wanted to charge him, \$10 a day while engaged in the work.

"Why," said he, "if the Farmers' Alliance object to the high freight rate charged by the Southern Pacific, they can easily get a reduction. Let them have their goods shipped by boat from San Francisco to Stockton. They can get that done for \$1 per ton. Then they can take six horses and two wagons and make the trip to Stockton and return in 14 days at the outside. They could easily transport five tons, which, at the rate charged by the railroad, would amount to \$125. This would make \$8 a day for them, counting freight but one way. If they had a load both ways, they would make \$16 a day. If the Farmers' Alliance would resolve as a body that they would pursue the course I have indicated, we would soon hear no complaints about high rates. The railroad people are only human, and having a monopoly, squeeze all they can out of the people whom they imagine are at their mercy. As soon as they meet organized resistance, they will reduce their rate so low that it will not pay a farmer to use his teams in opposition to them. When they do this, complaints will cease."

It is currently thought that the Lord helps the man who helps himself. If this is a fact, the farmers can get lower freight rates by starting an opposition to the Southern Pacific and hauling their own freight.—*Visalia Times*.

[Through a level country like that from Stockton to Kern county, we presume steam road-wagons could be employed to far better advantage than horses, burning wood or coal for steam. By utilizing the asphalt bed and oil springs along the western slope of the hills between Huron and Bakersfield, an exhaustless and cheaper fuel might also be secured.—Eds.]

## The "Call" on Farmers' Alliance.

In the formation of new parties (says the S. F. Morning Call recently) there are likely to be some mistakes at first in platforms, for men of different minds assemble and discuss their opinions as to principles which they believe ought to be embodied in their efforts for reforms. The Farmers' Alliance is a case in point. All realize that corporations and politicians have made common cause in plundering the people in most of the States of the Union. Corporations have had in their pay men who ran conventions, and the public have had to take the candidates who were nominated for them.

California, as we know, has had to suffer from the anomalous condition of affairs until our citizens have become restive under the load they have had to carry. They have seen taxes increase with little or no prospect of a change for the better. Under such circumstances Farmers' Alliances have been formed, with a view to the nomination of candidates for office, instead of leaving this important duty to corporations. The Call is in favor of reforms in several respects. It does not wish to see all of the important offices in the State filled by men who sell nominations.

As political affairs have been managed in San Francisco and the State of California recently, scarcely an important position has been filled which was not accomplished through moneyed influences. Bosses in the conventions sold the nominations, and the people quietly voted for their candidates. Our recent elections have been a fraud upon the people. We have been plundered, yes, robbed. At the last election the Republican party was able to secure the nomination of some good men, and they were elected in preference to Buckley's candidates; but now that the Republican party has got into power, bosses are hovering about the Legislature, with a view to the abasement of that party. The Call is in hopes they will not succeed, but there is danger. Farmers believe there is danger.

If the farmers organize their Alliances, as they are likely to do, and go into elections, in every probability they will soon control the State, for where is there an honest citizen who will not vote for their candidates in preference to such men as have been nominated by partisan conventions? One mistake, however, is made by the Alliances in asking the Legislature to endorse Mr. Stanford's wild financial scheme, but we look for that orduity to be lopped off, for it is a crude, unconstitutional and impracticable.

At a recent meeting of the Orange County Alliance, over 300 members were in attendance. A fine repeat was provided at noon, and the session, though extended late at night, was heartily enjoyed by all.

## Inspection of Coal Oil.

Danger of Damaging Legislation.

A legislative bill has been favorably reported by a committee which makes provision for official inspection of coal oil sold in this State, and forbids the sale of any that does not come up to the fire test of 150 degrees. At first sight it appears to be in the direction of preventing adulteration of oils, but there are certain provisions which will add to the cost of the oil to the consumer, and will also be pretty certain to shut up the local refineries and prevent the use of the California product.

The bill provides for the appointment of inspectors, who are to receive 25 cents for each barrel of oil inspected and 10 cents for each smaller package. As the packages usually contain two cans of five gallons of oil each, this adds ten cents to the cost of the oil or one cent per gallon, which is about the ordinary profit to the importer or dealer.

It is estimated that the amount imported and produced, and refined here, aggregates about 12,000,000 gallons per year, all of which is sold in cases. Hence the inspection alone will cost the people who use the oil \$120,000 per year. The imports to this city are over 9,000,000 gallons by the Standard Oil Co. alone, as stated by them to the Interstate Commission. Their proportion of this tax would then be \$90,000, but the people themselves would have to pay this.

The oils now sold are under the tests of 110, 120, 130 and 150 degrees. The dealers consider that about one-quarter of this amount is of 150 test, and one-half is from 120 to 130. The range of prices is from one to four cents a gallon on oils of lower test than 150 degrees. Now to raise the test to 150 on all the oil will cost nearly two cents a gallon on the whole consumption more than the people are now paying for their oil. This added to the former figures referred to will make \$240,000, or about \$360,000 a year more tax on the coal oil used in this State, which expense will fall mostly on farmers, miners and others in the interior and on the poor people of the cities. There will also be another extra cost in the danger of importing oil to this place which does not come up to the standard.

It would really require the dealers to buy oil of a test of 160 degs., as inspectors often vary in their tests from five to ten degrees. The dealers and importers will make an extra charge for this extra risk. As an instance of this the fact may be cited that they have in Honolulu a law requiring the oils used there to stand a flash test of 115. The Standard Oil Co. sent over a cargo that had been tested here at 117, but the inspectors at Honolulu said it was only 107, so the whole cargo had to be returned here. It was then re-inspected and stood 117 as before, but the errors or differences in the inspection tests caused great expense. If a cargo is brought here from the East and does not meet the test, it cannot be sold, and there would be more loss on this than could be made on a dozen cargoes.

Coal oil, like many other staples, is sold very close, and the profit is only from one to two cents per gallon. If all the oil brought here has to go to a warehouse for inspection, this makes an extra expense so only large dealers like the Standard Oil Company could conduct a business at a profit.

The operation of this law would also close up the refineries in this State, because it has been found impossible to make oil from California crude above the 120 fire test. Hence the refineries would have nothing to do, and the California product would be sold for fuel purposes only.

The plea for this bill is that the dealers cannot be trusted to import oils up to the standard required by existing laws, which provide that no oil can be sold under the fire test of 110 degrees. The universal standard for export is 110 fire test. Local laws have raised the test to 150 in other places, but have not prohibited the sale of that of lower test provided it is inspected. The fees for inspection in Eastern States are from one and a half to two and a half cents per case of two cans, and from five to twelve and a half cents per barrel.

As to safe oils, the universal standard established by the United States is 110 fire test; the flash test of such an oil is about 90 to 95. The flash test is the first evolution of vapor from the oil; the fire test means the point of temperature at which the volume will burn when the match is applied.

As the market stands now, these tests are recognized throughout the world, and any sold less than 110 would be a fraudulent practice on the part of the dealer. Moreover, the cost of freight from the East is so great that the dealers would scarcely import impure oil, since the price of that below 110 is very slight in difference at the Eastern market. The morale of the trade now requires 130-test oil and the major part of this is of actual fire test. The freight from the East is about 10 cents per gallon. The first cost of the oil in barrels is slightly less than that and in cases a trifle more. It is worth about 22½ cents a gallon here now.

There are very few accidents in this region from impure oil, which is a pretty good indication that dealers are importing a good article. While the proposed legislation would raise the

standard, it would also materially increase the price, and people can buy the higher-priced oils now if they desire. The class of people who use coal oil in their families is one that does not care to have its cost increased. Bills of this kind are often passed because the legislators do not investigate as to the probable results on an industry or the extra expense entailed to the consumers.

## TRACK AND HARM.

The Victories of Margaret S.

The article on the first page of this issue gives the general facts about the achievements of M. Salisbury's California bred filly, Margaret S. The following is an account of her races prepared for the RURAL PRESS by an eyewitness:

In August, 1889, Margaret S. left California for Cleveland, Ohio, where she was to take part in the Spirit's Futurity Stakes in which there were over 300 nominations and nine who made the final payments of which but four faced the starter. While it was known that she was fast enough to win if at herself, it was thought by many that her trip across the continent, change of climate and water, would have a tendency to tie her up. The result, however, proved different, as she won in three straight heats. The track was hard, and the temperature and wind blowing up the homestretch were decidedly against extreme speed, so that everything considered, the performance was wonderful, and the race one of the best three-year-old events that ever took place. In the first heat she drew second position, and after scoring several times, they were sent away. Margaret never made a move to win until well into the homestretch, where she gradually drew away from the others, winning easily by a length in 2:23½. In the 2d heat she repeated her previous performance, winning by two open lengths in 2:22½.

The third heat was started after a long and tedious scoring, Margaret S. again winning in the last quarter very easily in 2:24.

The summary is as follows:

Margaret S.	1	1	1
Palo Alto Belle	2	2	3
Fortuna	3	3	2
San Malo	4	4	4
Time.	1st quarter.	half.	3d quarter.
1st mile	30½	1:11½	1:40½
2d mile	36½	1:10½	1:45½
3d mile	36½	1:10½	1:40½
			2:24

In July, 1890, the four-year-olds were called up at Detroit to trot for the Chicago Horseman's Great Expectation Stakes, in which there had been nominated 565 colts, only five of which responded to trot the race, Allerton, who holds the world's record as the fastest four-year-old stallion, being the principal contestant against Margaret S. Everybody conceding that the race lay between these two great four-year-olds, the sequel shows that this was correct, as all but Allerton were distanced by Margaret in the first heat and many were certain he also was outside of the distance flag when she passed under the score the winner of the first heat in 2:18½. The second heat Allerton won after the hardest contest ever seen in the stretch by a scant length in 2:16½. The race was then postponed until the next day, and just before being called out a very heavy shower put the track in a very bad condition, being at least eight seconds slow in the opinion of the best judges present. After a most determined struggle in the mud, Allerton beat Margaret a head in 2:18½. The next heat was only a repetition of all the former ones, the race being terrific considering the muddy condition of the track. It was nose and nose for the last hundred yards, Margaret lifting her head and poking her nose across the wire first in 2:23½.

The excitement was now at the highest fever heat, the race standing 2 and 2, and the next heat was to decide the race, and when the two colt racers appeared on the track they were greeted with applause after applause and were soon started to finish the most sensational race ever trotted. Just as a tight race seemed probable, Allerton broke, and before fairly settled broke again, going all to pieces. Margaret S. kept on going through the mud like a locomotive, and just as she swept under the wire a winner in 2:20½, the great Allerton, the fastest entire colt of his age, was seen turning into the head of the stretch, being beaten a quarter of a mile, Margaret S. thus distancing her only competitor as she had all the other starters the day before, and winning the entire stake of \$9500. The spectators were thunderstruck, being rendered speechless at the outcome of the race, but it was only for a moment, and as Margaret came back to the score they hurled forth in thunders of applause for the winner of the double event and over double the amount of money ever before won by a four-year-old, the summary of which is as follows:

Margaret S.	1	2	2	1
Allerton	2	1	1	2
Sir Walter Scott				Dist.
Baroness				Dist.
Navidad				Dist.
Time.	1st quarter.	Half.	Three-quarters.	Mile.
1st heat	35	1:09	1:42½	2:18½
2d heat	34	1:08	1:42	2:16½
3d heat	34½	1:07½	1:41½	2:18½
4th heat	36½	1:12½	1:47½	2:23½
5th heat	24½	1:08½	1:43½	2:20½





## In Answer.

[Written for the RURAL PRESS by LUPA.]

"The worst hunger is that of the heart for love, the worst satiety is that of the heart, being obliged, through not finding any one to love, to expend all its love-wealth on itself."

Grieve not that love eludes the grasp,  
And dances like a thistle-down  
Across the bog and treacherous sands,  
And checks pursuit with warning frown.

Nor turn the yearning back on self—  
A mirror held before the face  
Shuts out the sight of other men  
And makes the world a stumbling-place.

"It is not all of life to live,"  
Is written o'er and o'er again;  
"It is not all of life to love,"  
The line drops sometimes from the pen.

The free and cheerful soul may find  
A thousand objects for its care,  
Till Love, left unpossessed, shall turn  
And bring the heart a generous share

Of all it needs: but Needs and Wants  
Pull often at unequal bands.  
Those drive the best who watch the team,  
Who sense the movement of the hands,

Forget themselves, forbear to gaze  
In fear at canyons safely past,  
And leap not shadows-boulders, sure  
That "all roads lead to Rome" at last.

## Helen Kendall's Rosy Wrapper.

"Beautiful, beautiful, but perfectly useless!" exclaimed Helen Austin, as she lifted a cashmere wrapper from a box in which it had been packed, and shook out its soft folds.

It was beautiful, in truth. The ground was a lovely rose-color, over which meandered a delicate vine, with sprays of wild roses and buds of a deeper tint, and faint green leaves. A little, not too much, soft lace finished the neck and sleeves, while one or two bows gave piquancy to the whole. It was a bridal present which had just come to Helen Austin on the day before her marriage.

"It is just like Cousin Mary," continued the bride-elect; "fine, dainty, exquisite; but it would be utterly out of harmony with my blacks and browns and grays. I could never wear it in the world."

"But, my dear, is there any law compelling you to wear only blacks and browns and grays?" asked Mrs. Lindley, the friend to whom she was showing it.

"Certainly there is; the law of fitness, of propriety. An elderly spinster, who marries a doctor of divinity with four boys, keeps his house, and does her share of parish work, ought to be attired with becoming sobriety."

"But the colors would be so becoming to you!" pleaded her friend.

"Yes, I used to wear those colors in my young days, and if I were eighteen, or even twenty-eight, instead of forty-eight, as I am, it would be just the thing. But will you look at the label—'A Rainy-Day Wrapper?' What-ever does Cousin Mary mean?"

"Just what she says, Helen. She wants you to wear it in your new home to brighten the dull, rainy, depressing mornings for your husband and children."

"I thought Cousin Mary had a better sense of correspondence. Now, if I could ever bring myself to put on this dainty thing, it would be upon some cloudless Sunday morning in early June. I should want to sit upon the piazza, with the flowers blossoming and the birds singing, and the blue sky overhead, and everything in harmony. Even then, I'm sure I should feel like a brown sparrow in the feathers of a bird of paradise. A rainy-day wrapper, indeed! No, thank you. My gray one with the Persian trimming will do well enough for rainy days."

"My dear, you are wrong, believe me, and Cousin Mary is right. She has lived in a house full of brothers all her life, and knows, as I do, that the masculine eye delights in soft, pretty colors. Men don't always know what it is that pleases them, but they are pleased with bright, cheerful colors in a woman's dress. You should wear the wrapper for the sake of your husband and boys."

"Oh, as for Dr. Kendall, the dear man—he is so absorbed in his studies that he would never know whether I was robed in sky blue, or grass green, or dandelion yellow or poppy red—bless him! As for Phil and Teddy, they are rampaging boys, too young to know or care what anybody wears, while Max and Howard are young gentlemen of such fastidious tastes, I'm sure they'd laugh to see their new old mother tricked out like a young girl. No, my dear, I know my duty better."

"You are incorrigible."

"Not at all. I have simply thought out this whole question of clothes, as it concerns myself, and reduced it to an exact science. You see, with my complexion, I can't wear blues and greens; reds and yellows are out of the question for one of my mature years and my

profession of 'pastoress'; purple I do not like; so there is nothing left but blacks and browns and grays, and I assure you I am fully equipped with them. I have run through the whole gamut, and can produce almost any shade of them from my wardrobe at a minute's notice."

"But what will you do with your wrapper?"  
"Oh! I'll keep the lovely thing, and remember Cousin Mary, and delight my eyes with looking at it. It is a delight to the eye."

So the wrapper was folded away, and the next day it went with Helen Kendall to her new home. Time passed, and, in the absorption of her new duties and fitting herself into her new place, the box and its contents were almost forgotten. One day, in making some changes, the box happened to be brought to light, and the wrapper was taken out to be put in some other place. Before it was disposed of, Helen was interrupted, and it lay upon a chair in her room all night. The next morning was dark and rainy. She was late, and in hurrying her dressing she remembered that her ordinary gray morning dress was out of repair. Hesitating a moment, her eye caught sight of the card with "A rainy-day wrapper" on it. She smiled at the ridiculousness of wearing such a thing on such a morning; then, as she paused, a sudden inspiration came to her. "What if I should? I declare I'll do it!" she exclaimed, and in a spirit of mischief she hastily threw it on. A glance in the mirror assured her that at forty-eight the color was still becoming to her clear, dark complexion and brown hair and eyes. But she went out and took her place at the breakfast-table a little shamefacedly, it must be confessed.

"O mother, how pretty you look!" was the greeting of Teddy, the youngest and privileged pet of the household, as he came around to give her the good-morning kiss.

"It's her pretty dress," commented outspoken Phil.

"Yes, I guess it is," said Teddy, surveying it critically. "It's so rosy. Where did you get it, mother?"

"I've had it ever since I came here, only I thought it was too gay for the mother of such big boys to wear."

"Oh, it isn't," protested Max, the eldest, a young man of twenty-one. "It's good to see one bright spot in this wretchedly dull morning. I wish you would wear it every time it rains."

"Making sunshine in a shady place," quoted Dr. Kendall mischievously, but looking at his wife meanwhile with admiring eyes.

It was a merry breakfast spite of the pouring rain outside, and after her husband and boys had separated to their several employments, Helen Kendall did some serious thinking. The boys' evident pleasure in the pretty wrapper was a revelation to her. Could it really make any difference to them how she was dressed? Was it not possible that perpetual browns and blacks and grays, even of different shades, might in time become monotonous and depressing? And especially upon a dull morning, when it was so easy to strike a minor key-note for the day? Neat she always was, with immaculate collars and cuffs and frills; but couldn't she add beauty to neatness sometimes? Could she not strengthen her influence over the boys by making herself more pleasing in their eyes? Yes, Cousin Mary and Mrs. Lindley were right. How blind she had been not to see it before. She would henceforth wear that wrapper whenever there should be occasion.

Occasions came in plenty. Once, when Teddy was sick, he asked, hesitatingly, if his mother wouldn't put on that "rosy dress," and when she did he quieted down and went off into a refreshing sleep.

One morning before she left her room there was a tap at the door, and on opening it a crack, Howard whispered through: "Mother, won't you please put on your 'rosy wrapper' this morning?"

Wonderingly she complied, for it was a bright morning, and it had come to be understood that the garment was for dull days.

"I'm all out of sorts, mother," Howard explained; "got a desperate fit of the blues, and I thought a sight of that 'rosy wrapper' would do me good."

Happily, Helen was able to provide a more effectual remedy in her ready counsel and sympathy; still, she had no doubt the wrapper did its part in bringing sunshine back to the clouded face.

One time Dr. Brown was visiting them. He was an old and dear friend, and one whom Dr. Kendall was specially desirous to honor. In the morning her husband said to Helen:

"Don't you think, dear, you had better put on your pretty dress this morning—that one with the roses all over it, I mean—the one you look so beautiful in, you know?"

She put it on, feeling half-vexed and half-amused, but the visitor was wholly charmed, and was never tired of telling his friends afterward what a lovely woman Mrs. Kendall was, and in what exquisite taste she dressed; hearing which in a roundabout way, she was fain to confess that the wrapper probably did all.

"Mother," said Phil, as he came in one day before supper, "George Benson and Harry White are coming over this evening."

"Are they? All right. I shall be glad to see them."

Phil wiggled about and twisted himself into all sorts of shapes on the arms and posts of his mother's chair, until she was convinced he had something on his mind.

"Can I do anything to help entertain them? I can set out a little spread of apples and nuts and cookies, if you like. Will that do?"

"It isn't that!" Phil burst out. "It's—It's—say, mother, won't you wear your rosy dress this evening?"

"Why, Phil, that is only a wrapper for morning. It will hardly do for evening."

"Oh, yes, it will! The boys won't know the difference."

"But why would you like me to wear it?"

"Because I was over to George Benson's yesterday, and his mother's new dress was on the sofa, and it was all bows and lace and fixings, and it was green, or blue, or some color—I don't know which; and George said wasn't it the prettiest dress I ever saw, and I said: 'No; my mother has one ever so much prettier; and he said he didn't believe it, and I said for him to come over and see it himself—so won't you please wear it to-night, mother?"

Here was a situation, but Helen was equal to it. Her boy should not be put to shame and she promised him to wear the wrapper. Attired in it, with an extra bow or two pinned on, she did the honors for the admiring guests, and nobody but herself knew her secret terror lest some of the session, or of the session's wives, should drop in and find her tricked out in such unseemly finery. But she had her reward. George Benson was heard to declare that the rosy dress was "a stunner," and Phil was triumphant.

This incident gave her food for further thought, and resulted in the purchase of a deep ruby wool, which she had made up as tastefully as possible for some afternoons and evenings. The boys often importune her to wear it to church or downtown, but here she draws the line and stands firm. Her husband declares that she has grown ten years younger since her marriage, and she retorts that, if she is made to dress like a girl of twenty, she must be expected to act like one; but that she will keep her gayety and giddiness for the home circle, and not expend it on the parish.

The rosy wrapper, like other mundane things, began to show signs of wear, and Helen was anxiously contriving how she could renovate it, when, upon the first anniversary of her wedding day, a package was put into her hands containing materials for another equally beautiful, and attached to it was a card bearing the inscription: "To mother, from her boys."—M. H. Smith.

## Children's Sayings.

[Written for the RURAL PRESS by J. H.]

When the boys were first trusted with a gun, there was great excitement over every trophy of their skill. One day they brought in two little "cotton-tails," and were eagerly discussing when and how they should be cooked. I assisted them with my advice, but added, laughing: "I don't promise to help you to eat them; the only kind of rabbit I enjoy is a 'Welsb rabbit.'"

"Oh," exclaimed my youngest boy, anxious that I too should enjoy the treat, "then you'll *welsh* it, mamma, won't you?"

Years ago, when Ole Bull was yet at the zenith of his fame, we had tickets to one of his concerts. When the evening came, one of the adult members of the family was unable to go; and we decided to take the little sister, seven years of age, who had never been to a concert before. To her the violin was an unknown instrument and great were her expectations of the delightful mystery to be unfolded; but she said nothing.

In the music hall the vast audience sat and waited. Presently, the door opened and the great maestro appeared on the stage, instrument in hand. As soon as the loud hurst of applause subsided, the dear child turned, and looking up with her beautiful, innocent eyes, full of wonder, whispered softly:

"I think it looks very much like a fiddle."

## Trust in God.

[Written for the RURAL PRESS by MARIE.]

Mothers, mothers, do you know the power you hold? When you send your sons into the world as young men, or even as children sent here and there, why worry and feel uneasy that they are away? The parting is hard, but it is our duty, and do you forget that there is a dear God above Who loves us all? Do you think He will turn away from a mother's prayer for her boy—He who had a human mother such as we? Oh! trust and ask Him, mother dear, and then have no fear. He will guide and guard your son far better than you ever can and He will not forget a mother's prayer. It may not be your way, but our Klug, our God, knows best, as you will know in the end. Our sons must go forth into the world, and we will only hinder their progress in life by tying them to our apron-strings, as many a loving but selfish mother does out of fear that some misfortune may befall them. They will never forget your holy teachings. The little prayer you taught them so reverently at your knee, will be repeated when they are gray-bearded men, and our dear Father in heaven will do the rest if we only ask Him; but our faith must never falter, and we must remember:

"Like silvery echoes run  
The words, Thy will be done, Thy will be done."

## Random Thoughts.

[Written for the RURAL PRESS by Mrs. J. HILTON.]

I was reading the other day, in advice to young folks, that we cannot change our features. I think that is a mistake. Why, take the nose for instance; by wiping it up every time it will soon stay up and alter the face entirely. The same if the nose is pulled down a little every time it is wiped. Just for fun, notice some one who has a cold and see which he does, and then the mouth. You can be always saying "prunes and prisms," and make it very prim looking, or you can be doleful about everything and down goes the corners, and they stay down awfully if they have half a chance, or you can smile at fate and draw up the drooping lips into a merry-looking how, making one's heart sing for joy when your face is seen. But above all beauty is the speaking eyes. It does not matter what the color or shape, if you only cultivate an interested, bright look. The mouth may be large, the nose out of true line, if only the eyes that look into thine are bright with thought and comprehension, the other features are forgotten and you are counted a splendid companion by young and old.

I have been fixing over my old garments and retrimming my hat and making a capote like one of my dresses, but there is not a bit of fun in wearing anything stylish for a farmer's wife, for if you put on that pretty brown dress (made over two or three times maybe) and that dainty little brown bonnet whose three nodding plumes you made out of a shabby black feather nine or ten years old, you will be sure to be asked to sit beside your John, who is dressed in soiled and maybe ragged overalls, old blouse or coat and dilapidated hat, and go to town.

If some one comments on the difference in your appearance, which the some one is sure to do, you will be blamed for the contrast, even if you know that John has plenty of good clothes and that it was slackness or John was "too tired to dress up just to go to town, for I have to change again as soon as I get back, you know." Yet you notice the looks on the faces you meet and wish you had either stayed at home or wore your old calico dress and sun-bonnet. Isn't it horrid? But never mind; the dirty work will all be done some day and the white robes we all shall wear will be all alike, with maybe only a little more brightness on one than on some other, and our John may be one of the bright ones.

That brings my thoughts to another old garment we all have to put aside some day, and that is our bodies. I have always been fearful some of the garments or bodies were put away before the owner was through with them. I wish among the necessary laws that are being made, one could be made that would be a thorough test of death before burial, like opening a vein or something of that kind, for there have been so many cases of suspended animation that it behooves us to be distrustful of opinions of M. D.'s without a sure test. Cannot such a law be made?

Los Alamos.

## Believes in Rewarding Genius.

A farmer, driving a mule-like-looking horse, attached to an old-time "carry-all," came to town. His horse stopped in front of a corner drugstore and refused to go on. The farmer urged the animal, then proceeded to beat him with a rope, but without avail. Of course hundreds of men came up and offered advice. A balked horse is perhaps more fruitful of suggestion than anything else can hope to be. One man told the farmer to twist his tail; and another one said that a handful of fodder held before his eyes would have the desired effect. After awhile the farmer turned to a quiet man standing on the edge of the sidewalk and asked:

"What have you got to say?"

"Nothing."

"Isn't there some mistake about that?"

"None whatever."

"Are you sure?"

"I am certain."

"Is it possible," said the farmer, "that you stand there and see a balked horse, and have no suggestions to make?"

"It is not only possible, but is an absolute fact."

"Where do you live?"

"In this town."

"Are you going home pretty soon?"

"Yes, but why?"

"Well, I have a hushel of fresh eggs that I want to present to you. Here, take this basket, and when you need any farm truck let me know, and it shan't cost you a cent. I admire genius and must say that you are the most remarkable man I ever saw."—Arkansas Traveller.

SPEAK TRUTH SWEETLY.—And never is there such wrong done to truth as when one confuses it with a brutal bluntness. On the other hand, the most unwelcome truth may be told without exciting resentment if told sweetly. There is an Eastern fable of a monarch who had a disturbing dream, and called his two chief soothsayers, separately, to interpret it. The first soothsayer said: "The dream means that all



your relations will die, then you will die yourself." The monarch was furious and had this soothsayer's head cut off. The second soothsayer was summoned, and, having heard the dream, said: "It means that your majesty will outlive all your relatives." The king loaded this soothsayer with gifts, though he had said substantially what the other had said.—*N. Y. Sunday Herald.*

### Chaff.

**JAKE SIMPSON:** What is your favorite tree, Miss Cora? Cora Bellows (at eleven P. M.): The maple. Why is it? Because (yawning) it eaves early.

**BIGGS:** Our forefathers had wives that were of some account. They could do everything, from the family sewing to driving oxen. **Boggs:** Yes they hemmed and hawed, as it were.

**GRANDMA:** Keep quiet, Tommy; children should be silent when older people are talking. Tommy: Then I'll not get a chance to talk for a good while yet, for old people never are silent.

**PADDY's** description of a fiddle is as follows: "It was the shape of a turkey and the size of a goose; he turned it over on its back and rubbed it with a stick, and oh! St. Patrik! how it did equal!"

"WHAT kind of a man is your new minister?" was asked of a resident of Denver. "Just the kind of a man that might be expected to come from the East," was the disgusted reply. "He's a dude—he combs his hair."

**OWNER** of fishpond (to man who is trespassing): Don't you see that sign, "No Fishing Here"? Angler (with an injured air): Yes, and I dispute it. Why, there's good fishing here. Look at this basket.

"WHAT is love?" queried the editor of an American paper. He has since been deluged with answers, mostly from the fair sex. One lady says: "Love is an itching of the heart that we cannot get at to scratch."

ONE of two Scotties, in speaking of a new cemetery, said (in dislike of the new fashion): "I'd rather see than be buried in a place." "Weel," said the other, "it's the verriest wile we'll be buried naewhar else, if I'm spared."

**WAITER** (to cook): George, gent in No. 3 says as his potatoes ain't good—says as they've all got black eyes in 'em. George (real name Patrick): Bedad, thin, it's no fault o' mine. The spalpeens must have been fighting after I put them in the pot.

"JOHN HENRY," exclaimed the angry wife, "you needn't pretend you're asleep. Now you listen to me. I'm going to give you a piece of my mind!" "Wait a minute, Serena," said John Henry, as he got out of bed and groped his way to the boot closet. "What are you doing?" demanded the exasperated Serena. "I am preparing myself," replied John Henry, and a moment later the famous ex-catcher of the world-renowned champion baseball club had lighted a lamp and was standing in his well-known attitude in the middle of the floor with his old mask, breast-pad and leather gloves on. "Go ahead, Serena," he said calmly.

A FARMER in the Nebalem sent the following order through C. F. Curtis to a local merchant. The rancher was evidently in a state of delirious joy over the arrival of a son and heir: "Send me a sack of flour, five pounds of coffee and one pound of tea. My wife gave birth to a big baby boy last night also five pounds of cornstarch, a screw-driver and a mouse-trap. It weighed ten pounds and a straw hat."—*Astorian, Oregon.*

A GIRL of sixteen, thrown on her resources, not long ago, asked Rose Terry Cooke, the authoress, if she could advise her to take up a literary life. Her reply was significant: "I would not advise a girl, even with the strongest taste that way, to attempt literature as a means of living. It is the hardest work for the poorest pay a woman can do, and full of mortification, anxiety and disappointment. For a man it is different—a man gets twice the payment for literary work that is given to a woman, though it be of poorer quality. From a life-long experience, I advise you to let literature alone except as an amusement."—*Boston Journal.*

A THOUGHT.—I stood on the banks of the river this evening and saw the sun hathing himself in the still waters. I saw him sinking in the west to shine on some other part of our globe. I then began to realize that this place is away far from the country that gave me birth—far, far away. It is even farther than the geography reached when I was at school. What induced me to come here? I can't tell. It was destiny. If I, a sailor-boy, had been told I would be a farmer on the far western end of the continent of America, I would have said, it is not possible. J. R. OLSEN.

SHORTHAND WRITING by machinery is as yet a novelty in Great Britain. It is, however, alleged that a new stenographic machine in use by the Italian Parliament is capable of recording 250 words a minute, and can be readily manipulated by a blind person.

THE greatest distance recorded at which the sound of cannon has been heard was on the 4th of December, 1832, when the cannon of Antwerp were heard in the Erz-Gebirge mountains, at a distance of 370 miles.

## YOUNG FOLKS' COLUMN.

### Temptation.

It was a pretty little pocket-knife, and deserved a better fate than to be forgotten by its owner, who had gone home from school and left it alone and unprotected on his desk. It had, however, caught the eye of one little fellow—James Donnelly by name—who, having often horrified it, was keenly alive to its merits.

James was staying after hours, mastering an example in arithmetic which during the day had mastered him; and now, having mastered his work, was gathering his few belongings together before going home, when his eye alighted on the knife. He picked it up, and gave each blade a separate and distinct examination.

How any boy could forget such a treasure he did not see. He fairly longed for such a knife, with a longing that only a boy could feel that was obliged to do the great amount of his inevitable whittling with one that, in its palmist days, had boasted but a single blade, and bore, therefore, but sad comparison to the little heanty that he now held in his hand, and which, the longer he held and more he admired, the harder it seemed for him to replace.

The ever-ready Tempter was at hand with his suggestions; but James hesitated, for, being in the main an upright little fellow, he could not deliberately take it without doing violence to his better self.

"No one will suspect you, and the owner will think he lost it," whispered the evil voice. Still he hesitated, and still the desire to possess the knife was strong within him.

Right and wrong struggled for the mastery, until one more admiring glance, one more feeling of the bright blades, proved fatal. Quickly he slipped it into his pocket, and hurried out of the classroom without his cheery "Good afternoon!" that his teacher was wont to hear.

But she, being intent on the work of some boys, soon forgot the omission.

He walked down the street with a feeling of anything but exhilaration at possession of the coveted knife. He changed it from one pocket to another, but somehow it seemed to be at home in none. Then he took it out again and looked at it; it certainly was pretty, but what pleasure would it bring to him if he must always hide it?

Suddenly his heart beat quicker, for one of his classmates was coming up the street, and James, with his burden of guilty conscience, felt that his comrade would surely penetrate his guilt, and therefore he must avoid him.

Quickly he scrambled to the top of an old wood-pile, and rejoiced to see that he had not been seen by the boy that ordinarily he would have been glad to meet.

While on top of the old boards, his better angel began asserting himself. He had never been tempted to take what was not his, and he wished the little knife was safe in its resting-place in its owner's desk.

The more he thought of it the worse his action seemed, and the inner voice of conscience was whispering: "Return it; the school is not yet closed, and the class-room by this time is empty."

With a heroic effort he made up his mind to do so. Slowly he climbed down from his height, and slowly retraced his steps toward the school.

He opened the class-room door. How lonely and quiet it all seemed! The afternoon sun was coming through the windows, lighting up the walls and desks, and brightening even the old blackboard.

He placed the knife where he had found it, and again hurried out of the class-room, but with what different feelings—with what a light heart!

He ran for very joy, and on his way home, in his own boyish fashion, he did much thinking and made up his mind hereafter to be straightforward and honest in spite of temptation.

Long years have passed since that afternoon, and he feels that he has been the better man for his boyhood's resolution.—*Golden Days.*

### Robbie and the Prairie Fire.

[Written for the RURAL PRESS by LUPA.]

"Robbie-lee!"

But no Robbie answered, and once more the call went rolling over the prairie, sinking into the little hollows to nestle under the long, dry grass, then swelling up and on again till it broke and scattered in the woods beyond.

This time it found him very still among the hazel brush where he had thrown himself, face down and beels up, to watch two squirrels at play. The little creatures dodged and scrambled and whirled so much, and the air was so still and warm, that he grew dizzy, so he shut his eyes, and when they were shut it was easier to let them stay so. After awhile, head and heels settled to one side against the bushes; but Robbie was not asleep, of course not! and when he drowsily answered "Present" at the second call, he was only thinking that he was in school and the teacher was calling the roll.

As he sat up rubbing his eyes, two or three wild plums dropped out of his dirty, chubby little fist, and when he shook his brown curls, dead leaves scattered in all directions, "as if I was a tree," thought Robbie, and laughed.

In a minute he knew where he was and who called, so he scrambled out of his nest, making

believe he was a bear, snapping and striking at the twigs and wild grape vines in his way.

The house was in sight when he stood up, and there was his pretty mamma, so far away that she looked like a little girl, acting as uneasy as Robbie's white hen when her new chickens proved to be ducks. He laughed again, and then wondered what was the matter, so he started for home, saying "ooh!" once in a while as he stubbed his toe or the dry grass scraped his ankles.

The sun was so hot he would have liked to rest again, only there was no shade anywhere, so he went on. It grew hotter and he wondered why, for the sun was not so bright; then he felt afraid and began to run, and the sweat trickled down to his eyes, caught the tears that were waiting, rolled over the round cheeks and dropped, but dried before they could touch the ground. His throat was so full of sobs he could scarcely get breath to answer his mother, who still kept calling; little gray flakes like ashes were falling around him, it was getting darker and he was sure that what had looked like a cloud was really smoke. The prairie was on fire—yes, that must be the reason.

"O mamma, will everything burn up?" he gasped as he finally caught at her outstretched hand.

"I don't know, Robbie; we must save the hay if we can. Get your breath, then help me."

"I'm all right. Tell me—quick."

"Take your little pail and wet the grass along the fence with water from these tubs. I am going to set a back fire."

Robbie had lived in Minnesota long enough to know what that meant, so it did not frighten him to see his mother touch a lighted match to the stubble, for the danger from the coming fire was greater. Carefully they watched and guided this blaze that might save them. If it shot up too high, water or fresh earth settled it, and if it ran too near the house, barn or haystacks, the same means sent it back; but the great flames were coming, O so fast! and the wind seemed glad to help them; hands and eyes smarted and each breath felt like fire. If only the wind would stop!

As the broad, black band they were making, grew longer and the ends nearer together, Robbie said they were "dressing the place in mourning."

"Yes in sackcloth and ashes," she answered, whipping a runaway blaze with a wet sack.

Five minutes more and the black ribbon would be joined, the saving circle finished; but with a sudden swoop the wind that had come with the fire, snatched the blazing tufts of grass, whirled them high in the air, then dropped them directly on the top of one of those precious stacks of hay.

Robbie looked, and knowing that they could do no more, he reached out his little burned and blackened hand, closed his eyes, and saying solemnly, "Mamma, let us pray!" knelt on the still-smoking grass.

The roar of the fire seemed to grow louder, the glare of the flames sharp and irregular, so he could feel it through his closed eyelids; but he didn't care now, he was so tired and sleepy. He whispered "Now I lay me" and didn't think any more till he felt warm drops and cold drops on his face. The warm drops were his mother's tears, for he could touch her cheek if he lifted his hand, but the cold ones. He opened his eyes—yes, they were rain drops, the roar was thunder and the flashes were lightning. Directly the sprinkle was a shower and the shower seemed a deluge, so the fire hissed and went out, while they still knelt there in the scorched grass.

Then Robbie looked up with the light of a great mystery in his eyes, and asked, "Mamma, wasn't our prayer answered?"

## GOOD HEALTH.

**COCOANUT FOR TAPEWORM.**—Prof. Parisi of Athens some time since called attention to the tæniocidal properties of the cocoanut, when freely ingested. His attention was drawn to the subject from an accidental experience in his own case. While traveling in Abyssinia, he one day took a considerable quantity of the nut, sufficient to produce an attack of diarrhea. After awhile, much to his surprise, with one of these diarrheal motions, there came away a complete tænia, head and all, and quite dead. After his return to Athens he made some observations in this line of treatment, and reported an almost invariable success. In only one instance did he fail to secure the head. His method was to order the milk and pulp of one cocoanut, to be taken in the morning, fasting, no purgation or cessation from business being required. In this country Dr. Allison has reported, in the *Medical Age*, a case where the use of *Filix mas*, oil of turpentine, and chloroform had successively failed to effect a complete removal of the parasite, but in which the patient by chance partook of a cocoanut, and soon after was relieved of a dead tapeworm with its head. Since then he has had occasion to prescribe cocoanut in this trouble, and has found it the pleasantest of all the tæniocides, and one that does not require the administration of a cathartic.—*N. Y. Medical Journal.*

**A CURE FOR HANG NAIL.**—A small and almost imperceptible hang-nail often involves the owner of the hand which bears it an endless amount of annoyance and vexation. It is the general rule—manicures to the contrary,

notwithstanding—that the nails least attended are better than those that are continually doctored. The man who cuts a hang-nail in nine cases out of ten lays the way for a much more vigorous successor. Satisfactory results are almost always obtained by pushing the skin back from the nail after washing the hands. The dry end of the towel should be taken and the skin pressed back wherever it overruns the nail. This breaks its adhesiveness to the nail and makes hang-nails impossible. Where the skin is allowed to grow fast to the nail, trouble invariably results, because the nail in growing out pulls the skin with it, and when it breaks from the tension the hang-nail is formed.—*Phila. Inquirer.*

**THE EFFECT OF SUNLIGHT.**—A man who has been annoyed for years by the fact that one side of his mustache grows about twice as fast as the other side claims to have found an explanation in the circumstance that he sits all day at his desk with one side of his face turned to a window, the light from which stimulates the growth of the hair on that side.

**"MIRACULOUS" CURES.**—The invalid girl, in a Pennsylvania town, who arose from her bed and rushed out of the house when the alarm was given that the place was on fire, simply proved the influence of mind over body. Great danger, like extreme religious enthusiasm, frequently works what have the appearance of miraculous cures, but science readily explains them.

**LINSEED OIL FOR CHILBLAINS.**—Mr. A. J. Arnold of Gibsonville, Idaho, in a letter to the PRESS, gives the following from his experience in curing chilblains: Take boiled linseed oil; warm the foot before a fire, then rub in the oil thoroughly. The pains will soon cease and if persevered in the trouble will soon entirely disappear.

## DOMESTIC ECONOMY

**PLAIN RICE PUDDING.**—One-half cup of well-washed rice, one-half cup of sugar, a little salt, one quart of milk; soak half an hour. Bake two hours, slowly at first, until the rice has softened and thickened the milk. Then let it brown slightly. This is creamy and delicious. A half-cup of raisins can be added for variety.

**QUEEN'S PUDDING.**—One pint of bread crumbs, one quart of milk, four eggs (yolks), two tablespoonfuls of sugar, grated rind of one lemon. Bake about one hour, then spread the top with currant jelly. Beat the whites of four eggs to a stiff froth; add one cup of sugar dissolved in the juice of a lemon. Spread over the pudding and brown.

**GERMAN COMPOTE.**—Peel and core apples, leaving them whole. Fill up the cavities with currant jelly, placing them in a pudding dish, adding as much water as the dish will hold without touching the filling of the apples. Add half a pound of sugar and the thin peel of half a lemon. Cover tight and cook slowly until done. Remove the apples to a glass dish, hold down the syrup to a jelly, and pour it over.

**STEWED CABBAGE.**—Cold cabbage left from dinner can be drained from the pot liquor in which it was boiled, and then simmered for half an hour in water, or milk and water; pour off the water when it is tender, and stir in the pot a lump of butter or clarified dripping, let it cook gently, then throw in a cup of milk or cream; thicken it with flour, and season with pepper and salt. Serve with the cream gravy poured over the cabbage.

**MACARONI.**—Boil macaroni in milk and water, half and half, salted to taste. When tender, remove from the water and drain. Put large hits of butter in a baking dish, strew thickly with grated cheese. Put in a layer of macaroni, then more butter and cheese until the pan is full. Cover the top with butter and cheese. Stir a teaspoonful of mixed mustard into a gill of rich cream and pour it over the macaroni. Set the dish in the oven and bake for half an hour. Serve at once.

**WINE SAUCE.**—Pour boiling water into a quart bowl and instantly pour it out again. Put one cupful of butter in the bowl, and beat it until it is light and creamy. Gradually heat into this, two cupfuls of powdered sugar. When the butter and sugar are light and frothy, beat a wineglass of wine, adding only a tablespoonful at a time; then beat in three tablespoonfuls of milk or cream. Place the bowl in a pan of boiling water and stir until the sauce begins to look as if it could be poured. Do not keep the bowl in the water more than three minutes.

**CREAM PUFFS.**—Put half a pint of water and two ounces of butter on to boil; when boiling, throw in quickly four ounces of flour. Stir until well cooked and a smooth dough is formed. Take from the fire, and when cooled or lukewarm, take four eggs, one at a time and unbeaten, that is, simply drop one whole egg into the dough, beat until mixed, then add another, and so on. If the flour you use is winter-wheat flour, three eggs will probably answer, as four would make the batter too liquid. Drop the mixture by spoonfuls on greased pans and bake in a moderately quick oven about thirty minutes. If the puffs should fall when you take them from the oven, they have not been baked until thoroughly done.



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Seeds—Sevin Vincent & Co.  
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See Advertising Columns.

## The Week.

The recurrence of storms has been the outdoor event of the week. Rain has fallen in great amounts, and the volume added to the streams, especially in Arizona and some parts of Southern California, has brought great damage both in towns and country. In Southwestern Arizona large districts have been submerged, traffic and travel have been interrupted, and there has been great loss of property and some loss of life. In Southern California injury has also been done along the water-courses, and travel considerably interfered with. The Citrus Fair at Los Angeles was postponed for a week, as stated in our last issue.

In Central and Northern California the rains

have been generous, and thus far the rivers have been able to bear their increased burdens, though there is still danger of overflow. The rain for February was usually about twice as great as for the season up to February. Now the weather is warm, the soil thoroughly soaked and everything propitious for the growth which has been so long retarded.

Senator Hearst died during the week in Washington, and the California Legislature will remain in session to elect his successor. Congress adjourned on Tuesday night.

## The Rivers and the Debris.

The Secretary of War has filed the report of the Commission appointed by the Act of Congress in 1888 to examine hydraulic mining in California and report upon the losses sustained by the deposits of debris in streams. The examination was begun in the spring of 1889 and concluded in the fall of last year. There is a full description of hydraulic mining in the upper and Sierra districts and a review of its progress and results, and the law suppressing the dumping of refuse matter is given. There are also tabulated statements showing the depth of deposits of debris at different points as compiled by the State authorities and others interested in the controversy between the miners and farmers.

The report is signed by Lieutenant-Colonel W. H. Benyuard and Major Thomas H. Hanbury. The board caused an examination to be made of the injured lands bordering on the Feather, Yuba, Sacramento, American and San Joaquin rivers and their tributaries, and surveys were made of the channels of the Sacramento and Feather rivers. Assistants were sent into the field for the purpose of examining the canyons of the different rivers and their tributaries into which debris was dumped, and surveys were made of selected sites for debris dams. The particular sections visited were those which had been the scene of former mining operations on a large scale or which represented typical mining districts.

The concluding remarks of the Commission are as follows:

"The duty devolving upon the board is to ascertain if some plan cannot be devised whereby the present conflict between the miners and farmers can be adjusted in order that the hydraulic-mining industry can again be carried on without injury to the farming interests and the navigation of rivers. It is not apparent that any expression of opinion or recommendation will have any effect in rehabilitating the industry in the present legal status of the question. Without some modification of the existing conditions, hydraulic mining must cease. It cannot be carried on without violating the decrees of the courts.

"If, however, by a reversal of the opinion of the courts, or by other means, hydraulic mining can be permitted in whole or in part, or if without such reversal, an expression of opinion is required as to the feasibility of impounding mining debris, the board will state that the investigations and examinations made indicate that in isolated cases it is possible to impound debris without injury; also that locations exist in the canyons of different mining streams in the Sierra district where permanent stone dams, properly constructed, will retain large quantities of material of a character formerly mined out, and which has caused the destruction of farming lands and injured the navigation of rivers. These dams, however, will not be effective in impounding all the material delivered into the canyons from the mines. Being in streams and in the pathway of freshets, portions of the heavier material will be carried over the crests of the dams, to eventually find a lodgment in the river below. The finer sands and clays cannot be effectually impounded by such barriers, but will be carried off in suspension. With the improved condition which it is desired to give to navigable rivers, it is probable that the greater part of this finer material can be carried off without being productive of harm. The construction of dams called for being entirely in the interests of the miners, the cost thereof should be borne by the individuals interested in mining.

"The navigation of rivers in the Sacramento valley has been injured by the operations of hydraulic mining. The injury has been caused by the deposition of vast quantities of mining debris in beds. In addition, there are vast deposits of material lying in the canyons and in the plains below the foothills, portions of which will be carried down during the floods, and eventually lodge in these streams.

"It is proposed to improve the rivers, first, by restraining debris now lodged in the canyons of the Yuba and Bear, and in the plains below by dams and other restraining works; second, by contracting the widths of rivers by brushing dams in their beds. The system of restraint will be continued until the rivers in their improved condition can carry the material brought down.

"The estimates of these improvements are:

Feather river wing dams, \$300,000; Sacramento river wing dams, \$300,000; dam on Yuba river at Deguerre point from \$300,000 to \$640,000, according to height; dam on the Bear river at Van Yiesens, \$150,000; restriction works on the Yuba below the foothills, \$300,000, besides an annual amount of \$20,000 for maintaining navigation on the Feather river, while the above proposed works are in course of construction."

The Army Board appointed to make a preliminary examination of the Sacramento and Feather rivers has also made a report and commends expenditures for the improvement of the rivers similar to those just mentioned as commended by the Debris Commission. However, Congress has done nothing and will do nothing this year. One of our Representatives has telegraphed that our rivers and harbors will receive nothing at all at the hands of this Congress.

Meantime some of the rivers, freed from congressional control, are doing as they please, and not being able to carry the storm waters comfortably, are carrying away bridges, washing away land, destroying railroad embankments, and doing whatever damage they conveniently can. It seems very difficult for us to get Congress to pay much attention to improving the water-courses in the State of California. Probably the State is not of sufficient political importance to warrant much expenditure in that direction. The Government does not need to heed the advice of its own engineers or the desires of the inhabitants of this section.

## The Revenue Men After Oleomargarine.

We are glad to know that the United States revenue men in this State are being put upon the track of oleomargarine, which it is believed is being worked off in considerable quantities in this State to the detriment of the legitimate product and the disgust of consumers who fear they may be eating the bogus material.

Large shipments of oleomargarine, butterine, and the like, have recently been made to this coast from the East, and it is believed the law regulating the shipment has been infringed. Collector Phelps has received instructions from Commissioner Mason at Washington to exercise greater precautions in regard to the matter. In compliance with these instructions, Collector Phelps has detailed the following special deputy collectors: Lamhart, Kennedy and Bromley in San Francisco, Dunlap in San Jose, Maxwell in Los Angeles, Martin in San Bernardino, Cooper in Fresno, Borland in Martinez.

Their duties will require them to sample all kinds of butter and send them to San Francisco for the examination of Chief Department Collector John E. Youngberg, who is to subject each sample to a microscopic test.

ANOTHER IMPORTATION FROM SMYRNA.—As the result of his correspondence with the American Consul at Smyrna, Mr. B. M. Lelong has received fifty genuine Smyrna fig-trees from their native soil. These trees are two years old and well rooted. They will be distributed in pairs to various parts of the State. Besides these Smyrna trees, Mr. Lelong will distribute 1500 Tracy fig-trees, a very desirable variety.

A RETAILER'S TON OF HAY.—The San Benito Advance says a San Jose citizen recently bought a ton of hay from a local dealer and found that it weighed but 1500 pounds. The gentleman at once brought suit against the dealer for 500 pounds of hay additional. In the trial of the suit the fact was developed that a San Jose ton calls for 1500 pounds and no more; that such has been the custom from time immemorial.

HORTICULTURE AT THE WORLD'S FAIR.—Gen. N. P. Chipman has received commendation from many individuals and societies for horticultural chief at the World's Fair. It is also telegraphed from Chicago that possibly a Californian may be chosen, although it was almost announced a few weeks ago that no Californian need apply. Things are moving and should result in seating Gen. Chipman.

FROSTS AT THE EAST.—A dispatch from Laurel, Indiana, March 3d, says: The heavy snow and intense cold have killed the peach buds throughout the State, and will result in heavy losses to farmers, who last year suffered from a failure of crops. The outlook is gloomy and likely to have a bad effect on business.

## Agriculture at the World's Fair.

The crowning industry of the United States is agriculture, and the World's Fair at Chicago should show this industry in its vast extent and almost infinite variety. It is encouraging to see that the World's Fair managers have a correct idea. Said Mr. Buchanan, Chief of the Agricultural Department:

I know it to be a fact that no one interest in connection with the exposition has been given more thought by directors, commissioners and executive than that of the producers of food products. Its exceptional importance is fully appreciated. The location set apart for the agricultural display is conspicuous and most desirable in every way. I expect to see there a far greater, more complete and more meritorious agricultural exhibit in 1893 than the world has ever witnessed. The utility of it as an educator cannot be overestimated, and the spectacle it will present to visitors will be one of the most instructive, and, I believe, beautiful in the entire exposition. The natural supremacy of the agricultural interests in this country, and a patriotic impulse to bring before the eyes of the world our superiority and progress, insure an exhibit of which every American will be proud.

The agricultural resources of the United States can scarcely be said to have been shown at all at the Paris Exposition, and since the Philadelphia Centennial the progress of these interests has been wonderfully great, so great indeed, that it is only partially comprehended by Americans themselves. No class of exhibitors can hope to make a more important and splendid showing at the exposition than can the agriculturists, and the indications are that they will improve the opportunity to the utmost.

A FLORISTS' CLUB.—The San Francisco florists are organizing a club, and a few meetings have been held for organization. At the last meeting numerous questions of importance to the trade were discussed, and it was decided that the formation of a florists' club would be of great benefit. A constitution and by-laws have been prepared. Eleven new members signed the roll. The following were appointed to draw up a circular for those engaged in the trade in the district of the bay, setting forth the purposes of the club and asking for a full attendance at a meeting to be held two weeks hence, when officers are to be elected: E. E. Smith, M. H. Wilkins, A. Carbone, J. T. Miller and F. Sieverlich.

## THE VETERINARIAN.

## Swellings on Chest and Throat.

EDITORS PRESS:—I have a mare that has a swelling on her breast—a lump as large as a man's two hands. It hangs somewhat movable. I opened it once and a quantity of reddish-yellow water of a light cast escaped and the lump shrunk to almost nothing, but the next morning it was almost as large as ever. The mare has been troubled for three or four years with at times a swelling of the glands in the side of her neck at the angle of the jaw and a foul breath—sometimes discharges from her nose. This trouble does not seem to bother her now. I am totally at a loss to know what to do for the swelling, or rather the mare. She eats well and appears in pretty fair general health. A hint from you as to what is the matter and the remedy for it will be thankfully received.—L. LEIGHTON, Leighton, Shasta Co.

EDITORS PRESS:—There is no connection between the two diseases, the swelling of the chest and the swelling of the glands of the throat and nasal discharge. The swelling of the chest is a serious abscess and is from the effect of pressure, such as a blow, etc. This tumor is formed by an effusion of serum into the connective tissue of the part. The treatment consists of the reduction of the tumor by puncture; afterward inject with a solution of sulphate of zinc and be sure and keep the orifice open until the cavity of the cyst has become obliterated. The swelling of the glands of the neck and discharge from the nose is no doubt a form of epizootic (strangles) and must be treated accordingly.

A. E. BUZARD,

Veterinary Surgeon.

No. 11 Seventh St., S. F.

## Tarweed for Hay Lice.

EDITORS PRESS:—A neighbor of mine, not too well off in this world's goods, had, this January past, a lot of hogs, rather lean and very lousy. He made a shelter for them, and not having straw, he gathered a quantity of tarweed and placed in the shelter for them a bed. After a few days not a louse could be found on them, but myriads of nits. After two or three weeks these all disappeared, and now there is no rubbing nor squealing, but every hog is about his business eating grass in great comfort. Tarweed, he says, did it. Let others try it and report. Try it in hen's nest for fowl vermin.

H. C. CONE,

Thermal, Cal.



The Yosemite National Park.

[Written for the PRESS.]

The accompanying map will indicate to some extent the area and resources of the recently created Yosemite National Park. It will be seen to embrace nearly 42 townships, making about 1500 square miles, or 960,000 acres—less 36,111 acres comprised in the Yosemite grant, which, with all bona fide entries, are exempt from the provisions of the Act. The principal purpose in reserving this magnificent domain was to protect the Yosemite Valley itself and its great watershed from spoliation, and conserve, while increasing, the manifold attractions of that marvelous locality.

It is to the State Geological Survey, under

that not only do the forests and lofty peaks of the Sierras attract moisture, but Nature utilizes the rain and snow-distilling clouds throughout these vast solitudes, by building there her great reservoirs of snow, with which to supply the thirsty earth with life-giving madefaction during our dry and lengthy summers, and to make the springs and streams that run among the hills jubilant with unceasing songs of gladness, throughout the year; and the mighty forests, throwing their protecting arms of shadow over and around them, guard the precious treasures from untimely liquefaction.

This beneficent and timely provision alone should be sufficient to merit the eternal gratitude, not only of our own people, but of the lovers of the beautiful and the admirers of the

has more wildly sublime scenery, within the same area, than can be found in any other section of the Sierra Nevada mountains. I have crossed the great chain, personally, in over 20 different places, from Mt. Shasta to Mt. Whitney (both of which I have climbed) and spent months at a time in searching for scenic treasures among them, therefore, should know whereof I write. Prof. Wm. H. Brewer, first assistant of the State Geological Survey, under Prof. J. D. Whitney, has frequently enunciated similar convictions. No description, even when accompanied with illustrations, can do it even approximate justice. Its beautiful and sublime features must be seen to be feelingly appreciated; and even then, words would be impotent to fittingly define its multitudinous charms.

defiantly among the heetling cliffs above and around him. If those who feel that life's lamp is burning low would forego the crowded city and seek these health-restoring retreats, they would find that a new supply of the oil of life could here be found, and a new lease of health and renewed strength would be made out to them, and possibly add to their years of enjoyment and of usefulness.

As all bona fide entries are excluded from the provisions of each Act creating these National Parks, and as nearly every hotel site within their boundaries is already taken up and covered by private ownership, no revenue, to meet incidental expense, would be possible from that source, as provided by the Acts passed. This should engage the attention of friends to



Prof. J. D. Whitney, that we are indebted for the first outlining of the scenic wonders of this wildly picturesque region. Until then, and long subsequent thereto, it was only indifferently known to the occasional hunter and irrepressible prospector; but, as time rolled on, the abundance and variety of its succulent grasses attracted the sheep-herder and his myriad flocks, who, in ungrateful return for the free pasturage thus accorded him, not only turned those beautiful mountain gardens into dusty deserts, but devastated immense areas of its primeval forests with devouring fire. On the very last occasion that I pulled myself up, by the Anderson rope, to the summit of the "Half Dome" from that central and lofty standpoint, I counted no less than nineteen forest-consuming fires burning in nearly every direction. But now, thank God, the California delegation, and Congress—yes, and the President of the United States for approving the Act, the hands of the despoiler and vandal are from henceforth to be legally paralyzed.

It may be pertinent in this connection to say

sublime and marvelous in every civilized land, that Congress has created the Yosemite National Park and the Sequoian National Parks.

But when it is remembered, in connection with the noble Sequoias, that in Miocene times and the Tertiary period there were, according to Prof. J. G. Lemmon, the gifted and industrious hotanist of the State Board of Forestry, over 20 different species of this remarkable genus, as proven by fossil data from various parts of the world, yet now there are only two living species left, the big tree and the redwood, and those found only in California, is not this fact of itself a sufficient justification for reserving and preserving all of the Sequoias from spoliation and possible extinction? Then, in order more fully to realize how well Congress has deserved in reserving and preserving these unequalled scenic repositories from spoliation and vandalism, let me merely outline some of the principal features of the Yosemite National Park. Beyond question, it

\*See Third Biennial Report of the California State Board of Forestry for 1889-1890, pages 157, 158.

As well "attempt to measure a rainbow with a two-foot rule," as to try to paint any of its majestic and storm-defying crags and peaks; its mountain-crowned domes and rock-ribbed canyons; its isolated spires or jutting needles; its cloud-draped beds of eternal snow; its ancient moraines and living glaciers; its thousands-of-years-ago glacier-polished floors and ridges; its multiform and placid tree-margined lakes; its vast stretches of primeval forests; its granite solitudes dotted with grassy and flower-carpeted meadows; and all of these in storm or in sunshine, in winter as well as in summer, then could we feel but never describe them.

One of the many charms of this magnificent domain is that while feasting both eye and mind, one inhales the pine-laden breath of its fragrant atmosphere, and drinks hearty draughts of its life-giving ozone, so that experience teaches him that, apparently, he has at last found the real fountain of perpetual youth and the elixir of life; while the spirit becomes as buoyant and as free as the eagle he sees circling so unheedingly and so

the measure before Congress adjourns.

ALTITUDES OF SOME OF THE MOUNTAINS IN THE YOSEMITE NATIONAL PARK.

	Feet.
Mt. Ritter, Sierra Nevada Range	13,130
" Lyell, "	13,104
" Dana, "	13,043
Black Mountain, "	13,009
Mt. McClure, "	12,974
" Florence, "	12,889
" Conness, "	12,666
" Warren, "	12,264
Minarets, "	12,260
Red Mountain, Merced Group	11,686
Grey, "	11,554
Clark or Gothic Peak, "	11,512
Echo Peak, Cathedral Group	11,184
Cathedral, "	10,920
Mt. Hoffman, Hoffman "	10,747

H.

ELECTRICITY IN FARMING.—The idea of utilizing electricity for the fertilization of land is not by any means new, but it has been reserved for Spain to inaugurate a new use of the electric motor in plowing land. Such a plant has been set up on the property of the Marquis de la Lagna. A water-wheel of about twenty-horse power will be used for the generation of the current, and the plow will be worked at a distance of three miles from the generating dynamo.



# AGRICULTURAL NOTES.

## CALIFORNIA.

### Amador.

**A LESSON FOR ORCHARDISTS.**—Jackson *Ledger*, Feb. 28: The foothills agricultural experiment station has demonstrated one fact, which should prove of considerable practical value to farmers and fruit-growers. The trees which have been planted at the station were obtained from a number of nurseries representing a wide diversity as regards soil and climate. Coast, interior valley and foothill nurseries were all patronized. There was a design in thus gathering the young trees from diversified conditions. Care was taken that the stock should be in every case thrifty and strong. While at the outset all seemed to start under the same favorable conditions, there is now a marked difference in favor of the trees from nurseries where the conditions of climate and soil are similar to those of the foothill station. These trees have far outstripped those from nurseries which involved a sudden change of growing conditions. It is the same with vegetation as with animal life. The different species of mankind thrive only when environed with native surroundings. The further these natural conditions are departed from, the more quickly will the species droop or perish altogether. Analogy, as well as experience, teaches that the same rule holds good in the vegetable kingdom. It is of the highest importance, in order to secure the best possible results in selecting trees for a young orchard, that they should be procured from a nursery where the conditions are not violently out of joint with the locality where the young trees are to find a permanent home.

### Butte.

**BUTTE COUNTY FRUIT NOTES.**—Oroville *Register*, Feb. 26: Col. Yetter will finish putting out his fruit trees to-morrow. He has lately planted 600, making now 2000 that he has out. C. E. Kusel will finish planting this week 591 additional olive trees. He cleared and put in shape this winter several acres of land. The fruit planting at Palermo will this year reach about 400 acres, which will give when completed about 2300 acres in the colony. Geo. Matthews, one of Oroville's enterprising young merchants, received an order this week from San Francisco for 4000 oranges.

**RIO BONITO ORCHARDS.**—Biggs *Argus*, Feb. 26: A. T. Hatch, the "Fruit King," was induced to visit Rio Bonito, and as a result he became so infatuated with the soil and climate that he, in connection with John Rock of Niles, purchased 1200 acres on the lower tract, the terms of the contract making them agree to plant 200 acres the first year and 500 acres the second. The terms of the contract were fulfilled, hence the commencement of tree-planting on Rio Bonito. In connection with their tree-planting they planted an immense nursery, and in the proper season huddled and prepared the young trees for the market as well as finishing their own orchard planting. As a result of this planting, Hatch & Rock sold this year probably \$100,000 worth of nursery stock, besides completing the planting of about 1500 acres to trees, which includes the planting on the Ostroski tract, purchased by them about two years ago. When it was known that Hatch & Rock had become interested in Rio Bonito, such prominent men as Webster Treat, Reed & Johnson, L. L. Evans of Santa Cruz, B. H. Killinger of Niles, and others became interested, and tree-planting boomed right along until most of the Feather-river lands immediately east of Biggs have been and are now being planted. Following the 1500 acre orchards of Hatch & Rock comes Reed & Johnson's fine tract of about 700 acres, Hammond & Alexander of about 500; Webster Treat & Son, 240; L. L. Evans, 60; M. Goldman, 50; Capt. P. G. Brown, 40; and many small orchards with from 10 to 20 acres, making about 3500 acres now growing and to be planted during the season.

### Colusa.

**A GROWING FRUIT SECTION.**—Maxwell *Mercury*: More trees and vines have been planted in the vicinity of Maxwell and throughout Colusa county than ever before, though the area has not been large. This section will be a noted fruit belt some day if properly planted and managed. Parties who wanted to plant trees and vines recently, but did not do so because they were afraid this would be a dry year, are now "kicking themselves" because they did not plant them and get the benefit of the late rain.

### Fresno.

**A BOOM IN FIG PLANTING.**—Fresno *Californian*: Figs are rapidly coming into favor with horticulturists of this section as a sure and profitable crop. Several hundred acres are already planted with young orchards, and the area will be very largely increased this year. Thousands of trees are now being set out, and a few years hence the fig crop of Fresno county will be one of considerable importance. A few old orchards of limited area have demonstrated the fact that figs grow and produce well here, and the general desire to supplement the raisin industry with other branches of fruit-growing accounts in part for the attention bestowed upon the fig.

**HURON FARM NOTES.**—Fresno *Expositor*, Feb. 25: Following are the shipments from Huron during 1890: Wheat, 5292 tons; barley, 617; corn, 212; sheep, 58,873 head; cattle, 318;

horses, 18; honey, 46 590, pounds; wool, 1,301,680; pelts, 8275. The acreage to wheat and barley this year is much larger than last—probably half as much more—but the outlook for a large yield this year is not as good as last. In the season of 1889-90 we had 10½ inches of rain, while this year, to date, 4½ inches have fallen. If we have our usual March rain, the crop will be large. A great many vines and trees have been set out. Those that were set out one and two years ago have done well. In a year or two we expect to be shipping raisins and fruit from here. Many Eastern farmers have settled here during the past year. The best of land can be bought for from \$10 to \$20 an acre.

**EXPECTED INCREASED SHIPMENTS OF GRAPES.**—Fresno *Expositor*, Feb. 27: The *Expositor* a few days ago contained an item to the effect that a certain vineyard company near Fowler had planted 200 acres to different varieties of table grapes. This seems to be a move in the right direction, for the indications are that this branch of viticulture is destined to become profitable. One of the packing-houses here shipped quite a number of grapes for table use to Eastern points last season, and they arrived at their destination in good condition. Fresno and other shipping points in this portion of the valley have been promised increased facilities in the matter of refrigerator cars, and if this promise is kept, the shipments of green grapes the coming season will be largely in excess of last year's shipments. There is still a very important improvement to be brought about in the service between here and points in the East, and that is the making of better time, or to state it more correctly, the doing away with the delays that occur so often at present. The refrigerator cars that have been promised our fruit shippers are of the latest improved patent and will, long delays excepted, deliver the fruit in nearly the same condition it was received here.

### Laesens.

**EDITORS PRESS.**—During the past ten days we have had the storm of the season. So far nearly five inches of water has fallen, not including ten inches of snow now on the ground. This assures the farmers good crops the coming season and the filling of a half-dozen large reservoirs built within the county in the last two years at a cost of from \$15,000 to \$60,000 each. Stock has been doing well on the ranges without hay up to the 14th of this month. Some feeding will now be necessary for a few weeks and there is an abundance of hay in the country. The prospects are indicative of a good fruit crop, especially of apples, for which this Honey Lake valley is already somewhat noted. The N. & C. R. R., now building through the county, will assist us materially in marketing our produce to better advantage the coming season.—H., *Susanville*.

### Los Angeles.

**VINES BECOMING HEALTHY.**—L. A. *Herald*, Feb. 28: In glancing over the outlook of this county, we should not omit to notice the very important fact that our vineyards are once more becoming a formidable factor in our prosperity. The vines are fast recovering from the mysterious malady which affected them, and we shall have a very largely increased output of wines this year.

### Mendocino.

**FIGHTING THE SCALEBUG.**—Carl Purdy in Ukiah *Press*, Feb. 25: There is, I am very happy to say, a general movement around Ukiah to properly wash the trees which are infested with the San Jose scalebug. Several orchards are, without such action, ruined, and the insect spreads so rapidly in an orchard that if there is any at all, the whole orchard should be cleaned. During the last week three new Bean spray pumps have been brought here. One of these is of extra size, fitted for the attachment of four hose lines, and with which fully 500 medium-sized trees can be watered in a day. The other two are fitted for two lines of hose, with three men to operate, and spraying from 200 to 300 medium-sized trees per day. The wash to be used is composed of sulphur, lime and salt. It is the intention of the parties interested, all large fruit-growers, to make a clean sweep in their orchards, spraying everything. Mr. Wagoner has about 30 acres of bearing trees, Judge McGarvey's Ukiah orchard aggregates 50 acres, Mr. Fine's 35, Jos. Luce 20 and Wilcox 12. In addition to his own orchard, Mr. Luce has made arrangements to run the orchard owned by the railroad company, being 26 acres in the town limits, one of the largest old orchards in the county, but terribly infested with scale. By the arrangement between Mr. Luce and the railroad, the orchard is to be thoroughly cleaned and cared for. There are two smaller spray pumps already owned here, and they will likely be used by owners of small orchards in killing the scale.

**A VALUABLE COW.**—Point Arena *Record*: Last Friday morning Charles and Rollin Crawford went out on their farm to look after their stock. They found a cow with a young calf which apparently had just been born. They returned to the house, and at noon went back to get the cow and calf, but observed that the cow had in the meantime become the mother of another calf. They again went to the house to get some assistance, and on returning, found that the cow had done still better, for she had become the mother of a third calf. How long this thing would have gone on it is difficult to say, but the young men prevented further miracles and complications by taking the whole

herd home instantly. The cow's name is Lucy, which probably accounts for the freak.

### San Benito.

**THE SEASON.**—EDITORS PRESS: Rain commenced falling here on the 14th of February and has continued occasionally ever since, until even the most fault-finding farmer is fully satisfied and thinks no more is required for a month at least. Quite a large acreage of grain has been sown in this vicinity this season, and farmers can scarcely fail of reaping a bountiful yield. La Grippe has visited many persons around Hollister and Tres Pinos this winter, but seems to be disappearing since the rain commenced. Feed in the hills is quite good at present, but has not made as good a growth as might have been, had it not been retarded by the cold weather, as well as by the dry weather we have had until the past few weeks.—F.

### San Bernardino.

**BET LAND RENTED.**—Chino *Champion*: Up to Feb. 20 there were rented a little over 1850 acres for beets and over 1000 for corn, barley and alfalfa. The tendency to engage in growing beets is increasing. Reports here are to the effect that beets will be grown at Downey, El Monte, Spadra and Oatario; and if the people of Orange county can be assured of the extension of the Chino valley railway in season to haul their crops to the Chino factory, they will devote from 2000 to 3000 acres to beets.

**TEMECULA VALLEY TO BE IRRIGATED.**—Riverside *Press and Horticulturist*, Feb. 21: The Panba & Temecula Land and Water Co. propose building a dam in order to develop water for the Temecula valley and adjacent sections. The reservoir in contemplation will have water enough for 45,000 acres of land. The engineer's estimate for a dam 260 feet long and 100 feet high. This will enable them to flood 700 acres at an average depth of 60 feet of water. The headquarters of Temecula river are in Warner's ranch, and the stream is now flowing 1000 inches.

### San Diego.

**ELSINORE.**—EDITORS PRESS:—We are having an extra good rain, continuing 24 hours, and yielding 3½ or 4 inches that will help our young grain, which had begun to show that it needed more moisture, but had not died as it has in some localities. The orchardists say the prospect is good for a crop of fruit this year. So may it be, and prices also, that we may reap another harvest of "the much needed" as we did last year. If we can, Elsinore will continue to "come to the front" just as she has in the past. Owing to our coal, clay, fruit and many other industries, she has kept "marching on."—L. Y.

### San Luis Obispo.

**CRESTON WINE INDUSTRY.**—Creston, Feb. 27: In regard to the wine-making industry of this section, it is now thought by many that the wines that are made in this vicinity will be hard to beat for quality even now, and there is no doubt that as the vineyards around here attain greater age their products will be enhanced both in quality and value. The last year's vintage of Mr. Webster is far ahead of the first wine made at his winery, and with age will be a far superior article. The wines that Ernst brothers have made are excellent. This goes fully to prove the adaptability of both soil and climate for the production of an extra quality.

**GRAIN CROP PROSPECTS.**—Creston, Feb. 27: The grain crop is looking fair and healthy for the season, which is somewhat cold, owing to frosts and winds. The late-sown grain is coming up finely.

**GRAIN PROSPECTS IN SAN LUIS OBISPO COUNTY.**—San Miguel *Courier*, Feb. 26: This season so far has been one of the most favorable in the history of this part of the country. The rains came early enough last fall to wet the ground sufficiently to plow well, and thousands of acres were put into grain. A large amount was plowed for the first time. After the grain was sown, the rain continued falling at such intervals as to be most beneficial in starting the grain. The last storm gives the ground a thorough soaking, and a few light showers will be the means of producing the largest crop of excellent wheat ever produced in the Upper Salinas valley. The present capacity of the warehouses along the railroad will in many cases have to be doubled to accommodate the enormous quantities of grain. It is very doubtful if merely doubling the capacity of the warehouses at this place will be sufficient to store the grain that will come to San Miguel for shipment. In addition to the extra amount of grain that will come to this place on account of increased acreage, there is still another thing that will bring large quantities of grain here which has heretofore gone to other places, and that is the advantage offered by the new bridge and roads leading to it.

### Santa Clara.

**GRAIN NOT KILLED.**—Mountain View *Cor.* San Jose *Mercury*, Feb. 26: The seeded wheat and barley that seemed to have been lost has sprouted and is growing nicely, and farmers are happy.

### Sonoma.

**BENEFICIAL EFFECTS OF THE RAINS.**—Sonoma *Index-Tribune*, Feb. 28: The rain the past two weeks has had a wonderful influence on growing grain and grazing grasses. The wheat and barley fields in this valley never looked so thrifty at this season of the year and an astonishing yield is looked for. Grazing grasses are making a wonderful growth also, and all complaints of shortness of pasture

age have ceased and stockmen are jubilant. The weather has also been extremely favorable to the fruit and vineyard industry, and the present season promises to be one of the best, from the farmers' standpoint, known in this valley for years.

**PROSPEROUS DRY CREEK VALLEY.**—Healdsburg *Enterprise*, Feb. 28: Many improvements may be noticed in a drive through the Dry Creek valley. A great deal of new land has been planted this year, especially on the Lambert place. La Proctor has also planted a young orchard on the hill land near his house. A half-dozen young orange trees have also been planted by him. A fine fence is being built in front of the Galloway residence, and a considerable amount of new fencing has been done on the Lambert and Miller farms. Everything in the Dry Creek valley is in a prosperous condition, and the grain crop never looked better.

### Stanislaus.

**STANISLAUS' LARGEST VINEYARD.**—Oakdale *Cor. Modesto Herald*, Feb. 26: In our last week's letter we stated that the vineyard of A. V. Stuart was, perhaps, the largest in the county. Since that time Mr. Stuart informs us that it is probable Ora McHenry's is larger than his. The Stuart vineyards and orchards include 300 acres, all in a high state of cultivation, while the trees and vines are in a flourishing condition.

### Sutter.

**DISTRICT NO. 70—LEVEES AND HIGH WATER.**—Yuba City *Farmer*, Feb. 27: We are informed by parties from District No. 70 that the new levees across the breaks made by last winter's flood have stood the high water very well, with the exception of slight seepage. Along the back levee bordering on the river, some of the low ground is covered with surface and seepage water, which is thought will not injure the grain before it runs off. The stand of grain was never better throughout the district, it being further advanced in growth than that sown on the high plains. Along the river the levees in several places needs raising to prevent overflow. With few exceptions the entire system is in excellent condition.

**BREAK ALONG THE CHEROKEE CANAL.**—Yuba City, Feb. 27: The farmers along the Cherokee canal north and west of Biggs are experiencing considerable trouble from the waters from that stream. The company, having suspended operations, now refuses to keep the levees in repair and in consequence thereof numerous breaks occur. The owners of land near the canal will have to keep up the levees at their own expense if they wish to keep the water out. In many cases it will work a hardship upon them.

### Tulare.

**THE SOLANO RANCH.**—Hanford *Sentinel*, Feb. 26: Dr. A. P. Peck, of Chicago, arrived at Hanford last Thursday. He comes as a representative of about thirty well-to-do people residing in Chicago, Anrora, Galena, Ill., and Beloit and Milwaukee, Wis., who are interested in and own the property known as the Diss ranch about five miles northeast of Hanford, but which is hereafter to be known as Solano, which is Spanish for sunshine. The ranch embraces 640 acres of first class land, and will be improved and all planted to vines and fruit as soon as possible. Already work has been commenced in putting out 150,000 vines.

**MORE ATTENTION GIVEN TO FRUIT.**—Poplar *Cor. Porterville Farm View*, Feb. 27: The long-continued depression of the wheat market in general, and ours of this coast in particular, that compels us to take \$1.00 per hundred here while it is worth \$1.50 in Chicago, has driven us to take up other industries, and once out of the old groove, new activity ensues. Nearly the usual amount of grain has been sown, but here and there a corner has been left to start an orchard or vineyard, or both; and instead of the rancher settling himself down for an easy time until harvest, he is rustling himself to get his planting done in season. There will be more fruit planted here this season than has been planted all together before. Quite a number of small holdings are being improved and planted. We have demonstrated that it is practicable to pump water to grow trees and vines, and a spirit of confidence is manifested. We look for greater improvements during the next three years than we have had before in twice that time.

### Tulare.

**VINE AND TREE PLANTING.**—West End *Cor. Tulare Register*, Feb. 20: Improvements are still going on and trees and vines are being planted. Geo. Hestrawser is planting an orchard and vineyard in Sun Flower valley. He has the best prepared and most systematically arranged vineyard I have ever seen. L. Lucier of Dudley is also planting trees and vines. He has ordered 10,000 cottonwood trees to plant. R. S. Hinkson is planting a fig orchard. He thinks our hills and valleys the home of the fig. He is also experimenting with the Eastern beech. Should they grow, he will be able to furnish others next year.

**LARGE ORCHARDS AT GRANGEVILLE.**—Visalia *Times*, Feb. 26: The fruit industry is fast pushing the grain-growers to new fields in the vicinity of Grangeville. It is but a short time since grain was grown within a stone's throw of this town, and what little fruit was grown was for family use only. To-day there is not a grain-field within several miles of town large enough to pay a threshing machine to come and thresh the crop. The largest place being set



ont this year is that of J. O. Kimble, who has 480 acres, on which will be planted 6000 pruns trees, the rest of the place to be set out in vines. He has about 100 men employed. The place is surrounded by a woven-wire fence, and new harnes, tool-houses, bunk-houses, etc., are being erected. Just north of Mr. Kimble's place is the tract of 160 acres lately purchased by Nathan Bros. This is to be put out in peaches and vines. Last year, and in fact for a number of years past, this place has failed to produce a good crop of grain, more on account of lack of water than for any other reason. There are now employed in putting out trees on this place from 12 to 15 men. Nathan Bros. have two other places—one of 160 acres, known as the Vrona orchard and vineyard, and the other containing 80 acres, which has been set out in prunes. C. U. Henderson has 460 acres well covered with oaks. Eighty acres of this have been cleared and are now being set to vines. Mrs. V. Craw, the most extensive lady wheat-grower in the State, is having 320 acres set to vines. All the places referred to are within two miles of Grangeville, and every year prior to this were sown to grain.

**GRAPE-CUTTING CONTEST.**—Grangeville Cor. Tulare Register: T. Gaines, an expert at making grape-cuttings, came down from Visalia to make cuttings for N. W. Miller on the T. Richis place. After working a few days he offered to try his skill with our Grangeville experts, so G. D. Lobdale agreed to accommodate him, and the contest took place last Wednesday. By sundown the scores stood 13,000 for Lobdale and 10,500 for Gaines. Then they tried to see who could cut the most in two hours. Lobdale cut 3000 and Gaines cut 2500.

Ventura.

**THE SEASON.**—EDITORS PRESS: It isn't quite so dry as it was. It began a week ago to-day (Sunday), rained until Monday evening, showered again on Wednesday, and yesterday set in for an old-time soaking, and at present writing (5 P. M.) shows no sign of clearing up. The rain was needed badly. The December rain was enough to start the early-sown grain, but the scanty showers that followed were not sufficient to keep it growing, and much of the later-sown grain had not come up at all. Feed on the ranges was getting very short, too. But now the hills are fast putting on their wonted green, and barley and wheat are growing apace. More land than ever before is being farmed in the Simi, and better work has been done. The ground is generally in excellent condition, and with timely rains and showers in March and April, good crops must result. Considerable orchard planting is being done, and fruit trees old enough show fine promise of a crop. I forgot to say that "farmers are jubilant." I suppose it wouldn't do to let this occasion pass without ringing in that venerable chestnut.—S. B. B., Simi.

Yolo.

**WOODLAND FRUIT AND WHEAT SHIPMENT.**—Woodland Mail, Feb. 25: Dr. Thomas R. says there were shipped from Woodland in 1890, 766½ tons of dried fruit, 907 of green fruit, 289 of grape-syrup, 350 of wine and brandy, and in the same time 4472 tons of wheat.

Yuba.

**MARYSVILLE AGRICULTURAL FAIR.**—Chico Chronicle Record, Feb. 27: A canvass among business men of Marysville, fruit and grain raisers, shows that there is a decided opinion that some change should be made in holding agricultural fairs. Many arguments are advanced, the chief of which was that the fair is held too late for a good fruit display, that the live stock exhibit amounts to nothing, and that the horse-racing feature is objectionable on account of the kind of people it brings to town. It is claimed that the fair, as usually held, is no advantage to this county, while the benefit of the recent citrus fair was very great. It is understood, however, that the directors of the Agricultural Society do not favor a change and that they will hold the fair as usual. They have agreed to hold it earlier and to offer large premiums for horticulture exhibits.

**BERKSHIRE SALES.**—Phil M. Springer, Secretary American Berkshire Association, Springfield, Ill., sends the following transfers of recorded Berkshires: Edson Belted Cruiser, 23637, Henry P. Mohr, Mount Eden, Cal., to E. Schween, Pleasanton, Cal.; Eden Model Prince 25638, Henry P. Mohr to D. Lafrenz, Jun., Livermore, Cal.; Stanley 25561, Andrew Smith, Redwood City, Cal., to C. A. Coffman, Rivera, Cal.; Santiago Bale 25662, C. A. Coffman, Rivera, Cal., to J. E. Pleasants, Santa Ana, Cal.; Blackstone 25709, Chas. A. Howe, Stockton, Cal., to D. O. McCarthy, Slempreviva, Cal.; Judy 25710 and Ruth 25711, Peter Saxe, San Francisco, Cal., to D. O. McCarthy; Janal 25712 and Otay 25713, D. O. McCarthy, Slempreviva, Cal., to Wm. H. Yost, San Diego, Cal.; Petaluma 25706 and Long Branch 25707, E. P. Smith, Corning, Iowa, to Theodore Skillman, Petaluma, Cal.

**NINETY-FOUR MILES AN HOUR.**—Charles Watts, superintendent of the Chicago division of the Pittsburgh, Fort Wayne & Chicago road, claims that the fastest time ever made on an American railway was over that road lately. His official report showed that this special train ran 53 miles in 45 minutes, 11 miles of which were covered in seven minutes, or at an average speed of 94 miles an hour. The train sheets show that the above statement is correct.—St. Louis paper, Feb. 9.

## THE VINEYARD.

### Port and Sherry Grapes in California.

University Experiment Station Bulletin No. 91.

Now that the passage by Congress of the "free fortification" provisions of the tariff bill, when rightly interpreted, will render it possible for California sweet wines to compete in the world's market, it becomes of vital importance that the quality of the wines offered, especially to foreign consumers, should be such as to commend them to the existing taste, accustomed to the products of Spain and Portugal. This is the more essential, as we can justly claim that we possess the exact counterpart of the climatic conditions existing in those countries, the home of the olive, fig and orange; and hence there can be no excuse for our falling short of the types esteemed in commerce as the standard ports, sheries and Madeira.

In consequence of the very slight encouragement heretofore existing for the production of wines of this class, they have largely been made as a matter of convenience in disposing of material that, whether from the quality of the grapes or from miscarriage in fermentation, could not readily be made into good dry wines. It is but natural that a good deal of the sweet wine thus thrown upon the market bore but a slight resemblance to the type of which it bore the label, for grapes of the claret type are no more fit for making port than Rhenish grapes are for making sheries, or vice versa.

It has, however, been early recognized that the San Joaquin valley, and later on, that the foothills of the Sierra have a tendency to impart the port and sherry character to the wines from grapes not too far removed from the type of those used for that purpose in the Old World. Excellent samples of such wines have been produced, and a few wine-makers have made a specialty of their manufacture. In general, nevertheless, the plantations of grapes especially adapted to the purpose are few and relatively of small extent. The probability that under the improved prospects of the sweet-wine industry, it will be desired by many to graft over other vines to the best sherry or port grapes, renders it desirable that a succinct discussion of the several varieties suitable to that purpose and now obtainable within the State should be given for the benefit of those concerned.

A highly essential advantage possessed by most of these grapes as compared with those of the claret and Burgundy types is that they resist to an extraordinary degree the influences under which the wines made from grapes of the latter two types become vinegar. Instead, they undergo, under the continued action of warm air, the change to the true sherry and port flavor, which in its more advanced development is known under the name "rancio." Since the least acetic (or vinegar) taint is far more offensive in sweet than in dry wines, this peculiarity of the true port and sherry grapes is most valuable to the maker, and should commend them for exclusive use in all high-grade sweet wines. It is of course true that when grown in unsuitable localities any of these grapes may measurably lose their resistance to acetic taint and will not readily assume the "rancio" flavor when under the influence of the artificial climate of the hot-room. On the other hand, varieties that in the coast climate will ordinarily make wines of the claret or Burgundy types may in the Great valley or foothills make at least fair port wines. The same holds true more or less as regards white grapes in their relation to the sherry type; yet on the whole it is much more difficult to make the product from Rhenish or Sauterne grapes pass muster as sheries or Madeiras. It is certainly much more reasonable to conform as soon as possible to the recognized natural adaptations of climate and soil, and use for the production of the several classes of sweet wines the grapes which the experience of centuries has shown to be the best for that purpose.

Below are given brief descriptions of the port and sherry grapes thus far known to be growing in California, together with such data as I have been able to obtain either from the viticultural stations and the experimental vinifications at the Station laboratory, or from the experience of others.

#### PORT WINE VARIETIES.

**TINTO CAO.**—Tinto cao or Tinta cam is a very old variety of the Douro region; in Portugal it is very highly esteemed for its strong and good wine, but is not a very productive variety. It requires short pruning. Bunches somewhat loose, average size and irregular; berries round, rather small, bluish-black; skin thick and tough; juice sweet and astringent.

This variety matures late. At Cupertino, it has usually given a small or poor crop, much damaged by coulure; the average sugar acquired by the must is about 24 per cent. The wine obtained at the Station cellar is only of fair quality and difficult to keep.

Evidently this variety, like the related varieties from Portugal, requires a warmer climate; in fact the same varieties grown at Fresno always gave a more abundant crop and of better quality.

**TINTA AMARELLA.**—This is one of the best varieties of the Douro region in Portugal; it is there a very large bearer and grows very well in strong soils.

Bunches, of good size, pyramidal or conical, heavily shouldered, close. Grapes, medium size but irregular, varying from very small to rather large, and from nearly round to distinctly oval. Skin, rather thick but not tough. Flesh, firm but juicy, flavor, sweet, not marked. Peduncle thick, strong and woody. Pedicels, rather long and of medium strength.

Generally it ripens about the middle of October at Cupertino, being therefore of rather late maturity.

The observation made in regard to Tinta-cao must be repeated for this variety, viz., a small or average crop at Cupertino and Mission San Jose, while bearing a big crop in Fresno. Much coulure observed at the former localities, very little at the latter. Sugar contents of the must averaging 25 per cent. The wine is of fair quality, but requires blending to make a faultless port wine.

**TINTA DE MADEIRA.**—This is one of the several "Tintas" (black varieties) growing on the Island of Madeira. Bunches, medium size, cylindrical or conico-cylindrical, shouldered, sometimes loose, sometimes rather compact. Berries, medium sized, round; skin, thick but tender, dark colored; flesh, juicy, without marked flavor. Peduncles, green, of medium thickness. Pedicels, slender and rather long. Generally it matures some days before the "Tinta Amarella." At the experiment plot in Cupertino, has given a pretty fair crop, always more than either Tinto-cao or Tinta amarella. It had also very much less coulure than the two latter varieties. Must averaging about 25 per cent of sugar at Cupertino. Wine obtained is only of fair quality.

**MOURISCO PRETO (Mourisco tinto do Douro, Uva rei).**—This is one of the most highly esteemed vines of the Douro region, and must not be confounded with the Mourisco cultivated in the Minho country, which is totally different. It is of vigorous growth and makes hard and strong wood; leaves large, of uniform size, almost round. Bunches numerous and sometimes very large, pyramidal in form; berries large, pale black; flesh quite firm, skin thick, juice sweet and agreeable. It matures late in the second epoch; no observations have been made on it at the station since 1884, when grapes were received from the Natoma vineyard on Sept. 26th and showed only 21.4 per cent of sugar. It was reported as bearing heavily; it doubtless belongs in the warmest parts of the State.

**BASTARDO.**—This variety, extensively planted at the Island of Madeira and in Portugal, is quite widely cultivated in Spain for red, sweet wines. It grows also perfectly in Northern and Central French vineyards as well as in Southern localities. Its bunches generally are small, cylindrical or conico-cylindrical, berries of average size, regular and ovo-conical in form, entirely black, and tough; flesh juicy, sweet and very agreeable. It has strong and regular growth and matures early.

At the experiment plot at Cupertino the Bastardo has given somewhat large crops, suffering but little from coulure and sunburn. Must contains on the average about 27 per cent of sugar. Wine obtained at the experiment cellar from this variety has been only fair; it was of rather delicate quality, but not a good keeper. In Portugal, the Avarelhao (known here as Pied de Perdrix) is usually blended with it for the darker-colored export wines, or "ports."

**ALVARELHÃO (Localia—Pied de Perdrix).**—This variety, known in California as Pied de Perdrix, but only very little cultivated, ought to be propagated more than has been done heretofore, because it is one of the best "port" wine varieties, which remedies the deficiencies of the Bastardo, with which it is usually blended on account of its intense color (shown even in its leaves) and heavy body. Bunches medium size, branched; berries medium size, regular, oval, black, tender; flesh sweet but with considerable acid, very agreeable. Matures early (end of August). It is very liable to attack by the "Oidium," or powdery mildew. At Mission San Jose, matured late for its kind and gave a small crop, while in Fresno it showed a better crop and ripened early, but no samples sufficient for experimental working have been obtained. Whether this is the same grape grown under that name by Mr. Crabb in the Napa valley, we are not certain.

#### SHERRY AND MADEIRA VARIETIES.

**PEDRO JIMENES.**—The Pedro Jimenes is one of the most highly esteemed wine grapes of Spain, and enters largely into the celebrated wines of Malaga, Jerez, San Lucar, etc. It belongs decidedly to the warmer climates only, such as Southern France, Spain and Algeria, and its success in the coast counties of California should, therefore, be at least doubtful. The vine being exceedingly productive, requires short pruning and a fertile soil, since otherwise it would soon be exhausted.

Bunches large, branched, conico-cylindrical, rather close from young and vigorous vines; berries medium size, somewhat ellipsoidal; skin thin but resistant, golden yellowish; flesh very juicy, sweet and agreeable. It matures late in the 3d epoch.

At Cupertino and Mission San Jose it never gave a satisfactory crop and was badly attacked by coulure. The sugar contents of the must averaged only about 20 per cent, while at Fresno we noted heavy and healthy crops of high sugar contents.

**PALOMINO, or LISTAN.**—The Palomino is one of the most important grapes of southwestern Spain, and is also grown in southern France and in Algeria under its second name. The latter form seems to have been early introduced into California and acquired the very inappropriate name of "Golden Chasselas." The later importations of the Spanish Palomino seem to differ slightly from the earlier, in lighter bearing and higher quality of wine. Its vigorous growth and large bunches, close-packed, are too well known to require description. It matures somewhat later than the Verdelho, and at Cupertino and Mission San Jose acquires only from 22 to 24 per cent of sugar, making an excellent dry wine. In the interior valleys and foothills it justifies its high reputation as a sherry grape of the best type.

**MANTUO DE PILAS.**—This grape is little known outside of the sherry districts of southwestern

Spain, where it is locally of considerable importance. While it is related to the Palomino, yet it yields wines of a different character and high grade, and is very distinct both in its habit of growth and the larger size of its berries. The latter are somewhat elongated, very firm-fleshed, and from Spain are reported as maturing very late; at Natoma it was gathered early in October with 19 per cent of sugar from second-year grafts. The bunches are loose, long-conical and of fairly large size; and altogether the variety, with its close relative the Peruno, gives promise of being a desirable table and shipping grape. In Spain it is also used for raisins.

**MANTUO PERUNO.**—According to Rojas, the Spanish ampelographer, this grape is in the plain of Granada the most abundantly cultivated after the Pedro Jimenes; it forms a large ingredient of the "Malaga" sheries. It is a strong grower, with long canes and leaves resembling those of the Palomino, but smaller; bunches short, loose, roundish, sometimes with long pendent branches; berries above medium size, somewhat unequal, globular, flattened at base, greenish-yellow, or sometimes reddish-cheeked, with strong bloom, somewhat translucent; skin rather thick, resisting weather very well; hence this grape is much used for winter keeping by simply hanging up in a dry place. At Natoma it matured early in October, with 23 per cent of sugar, and was reported a fair bearer. The grapes kept readily for four weeks suspended in a garret at Berkeley.

**VERDELHO.**—This grape is largely cultivated in the Island of Madeira, where it enters into the finest qualities of wines. It is also cultivated to some extent in France, but mainly as a table variety. Excellent wine is made of it in the Crimea. The Verdelho is a vigorous stock and requires rather short pruning. Its bunches are small and loose, its berries also small and long-oval, very firm, golden-translucent, and resist wet weather remarkably well, but mature quite early even in coast region, acquiring easily 26 to 28 per cent of sugar. It thus stands foremost among the sherry grapes for the cooler portions of the State. Its bearing at Cupertino and Mission San Jose has been only fair, partly from early coulure; and at Fresno it has yielded a heavy and sound crop. It makes a delicious dry wine and (alone or better blended) the best type of sherry or madeira, with delicate, fruity bouquet.

**MOURISCO BRANCO.**—This variety, cultivated extensively in Portugal, makes long and large bunches having berries very close-packed, as large as a hazel-nut, amber-colored; skin thick and flesh juicy and sweet. It matures early and prefers rich soils and short pruning. Its wine has great value; raisins are made from it.

From Natoma it was reported to be a heavy bearer of good vigor. The must showed about 24 per cent of sugar, but no good sample of wine was obtained from it on account of its incomplete fermentation.

**BEBA.**—The Beba resembles the Peruno and Mantuo de Pilas; is but little known save as an ingredient of sheries in southwestern Spain. Its name seems to indicate that it is supposed to contribute materially to the "drinkableness" of wines.

Its growth is long and heavy, leaves and berries large, the latter white and round. It is used also as a raisin grape. At Natoma, was a fair bearer, and ripened late in October. The sugar contents of the then young vines averaged about 23 per cent. The wine was light-straw colored, of heavy body and bouquet and of agreeable taste. It developed very promisingly, but there was too little of it for definite results.

**BOAL DE MADEIRA.**—A grape of pronounced sherry character, of high quality, and clearly belonging to the warmer climates only. At Mission San Jose it suffers greatly from coulure, and is only of medium strong growth, while from Natoma it was reported as being a heavy bearer of good vigor. Bunches large and rather loose, branching; berries ellipsoidal, below medium size, on long and slender pedicels. Skin thick but quite tender and easily damaged in transportation.

At Mission San Jose and Cupertino this variety gave a small crop and was much damaged by coulure; but from Natoma it was reported to be a heavy bearer of good vigor. It matures at Mission San Jose in September; the sugar content of the must was about 25 per cent. The samples of wine made from this grape at the University cellar have not been very satisfactory on account of the poor or green condition of the grapes received. But we may expect to find a valuable variety for sherry purposes in the Boal, when grown in a suitable climate.

**WEST'S WHITE PROLIFIC.**—Whatever may be the true name and origin of this now well-known vine, it clearly belongs to the sherry group, and deserves great attention, both in this direction and in that of a brandy grape, for which Mr. West's experiments prove it to be admirably adapted.

At the University Plot, Cupertino, as everywhere else, it has maintained its reputation for heavy bearing, the average of 40 vines, long-pruned, being in 1885 57½ pounds each. Its bearing is very regular and it suffers but little from coulure anywhere that it has been observed; sugar contained in must averaging high, viz., about 26 per cent. The wine obtained has doubtless the sherry character, though hardly as pronouncedly as the Palomino when grown under favorable conditions.

E. W. HILGARD.

Berkeley, Feb. 28, 1891.

**HOLSTEIN FRIESIAN ASSOCIATION OF AMERICA.** The sixth annual meeting of the Holstein-Friesian Association of America will be held at the Vanderbilt Hotel, Syracuse, New York, Wednesday, March 18, 1891, at ten o'clock, A. M. THOMAS B. WALES, Secretary. Iowa City, Iowa.



## THE FIELD.

## Ramie Culture.

(Written for the RURAL PRESS by J. R. F.)

Present indications promise that ramie growing is to be one of California's important industries. Experiments made several years ago and continued at the State University's Experimental Station at Berkeley, afford unmistakable evidence that the plant can be successfully grown in many parts of this State, but for the lack of a market for the fiber, its cultivation has been neglected. It is now asserted by parties in position to know that this difficulty will soon be overcome, for the California Ramie Co. has been incorporated, with an authorized capital of \$100,000. This company has secured the requisite machinery for the proper handling of ramie. Persons who are competent to judge say that the machinery secured by the company is a success in every respect, and that a manufacturing establishment in Oakland stands ready to utilize the fiber turned out. But this is not the only buyer for the fiber, as letters have been received from manufacturers and manufacturers' agents at the East and in England, giving assurance of being in the market for the product. With an assured market for the product, it seems as if the principal obstacle against ramie-growing in this State has been removed. The samples of the fiber and also of the manufactured goods, are convincing evidence that for many purposes its products will take high rank in the commercial world. The samples in possession of W. H. Murray of the *Journal of Commerce*, show that the fiber, when prepared for the spinner, is beautifully white, soft and glossy, closely resembling floss silk in appearance. It is much stronger than the best flax and readily receives the most difficult dyes without injury to its strength or luster. Some samples of the manufactured goods were as fine and glossy as the finest makes of silk, while it is far stronger and more durable. Other samples, on the other hand, which were made coarser, were heavier and more durable than the strongest tow. Aside from this, the leaves of the plant, it is now claimed, have been successfully experimented with in manufacturing paper, so that a market is obtained for both the leaves and dry stalk.

In addition to the information given out on ramie cultivation by Prof. E. W. Hilgard of the State University, and published in the RURAL PRESS Feb. 21, 1891, the writer has been furnished the following: For first planting, root cuttings should always be used. For a nursery, sandy or loamy soil is the most suitable, and when it is desirable that the plants shall make rapid growth, the soil should be broken and thoroughly pulverized to a depth of ten inches. The roots should be planted about five to six feet apart, four inches deep, and slantingly, with the top coming to the surface. No further attention, with the exception of weeding, is required until they have attained



THE RAMIE PLANT.

- A.—The pistil or top of the flowers.  
 B.—The flower when in full bloom.  
 C.—The seeds—which are small as the finest flower seeds, and must be germinated under glass, requiring several years to obtain mature roots from the seed suitable to set out plantations of ramie.  
 D.—The flower after the seeds have matured.  
 E.—Capsule which holds the seeds.  
 F.—The roots, showing the "tap" or "water" root, covered with rootlets. These roots shoot out rapidly and, when planted 3x3 feet, will cover the ground with shoots in a few years.

the height of three or four feet, when it will be noticed that they become of a brownish color near the roots. They are then ready for layering. The ground should then be thoroughly moistened and the stem bent gently down and covered with from three to four inches of loose earth, care being taken to avoid detaching

the stem from the parent root. About two inches of the leafy end should be left uncovered. In the course of three or four weeks the layers will have made shoots, and may then be separated from the main root and cut into pieces four or five inches long for planting in the field.

To cultivate in the field, to make crops of fiber, the land must be prepared as in the first instance, with the exception that the plowing is not required to be so deep, although the deeper the plowing the better the crop will be; and this is the hardest of the labor, but it will amply remunerate.

The land being well plowed and cleaned, the cuttings obtained from the mother-plant should be planted in rows about three feet distant from each other each way. Keep plantation clear of weeds by a free use of the cultivator. This labor will be dispensed with when the plant has grown thickly. After five or six crops the field will be as thickly covered as a wheat-field ready for the reaper, and will remain so for years.

The maturity of the stalks and the time for cutting are indicated by a brownish color on the lower part of the stalks. In cutting the stems, an ordinary mowing machine may be used.

In Prof. Hilgard's bulletin, referred to in the forepart of this article, the soil adapted to ramie culture is discussed at considerable length, to which those desiring information on the subject are directed. In their circular on ramie culture, Trumbull & Beebe give the following:

When the land has become moist by rain or irrigation, and in condition for proper working, the plants may be set out, ranging in time from the first day of January to the first day of May. The choice time, however, embraces the first three months of the year. If the object of the planter be to set out a plantation, the roots should be set three feet apart in the rows by four feet between rows, and deep enough to cover the root proper at least one inch. The cultivator should be used freely the first season, in order to destroy all weed life and afford the young plants every encouragement possible to make a vigorous and extended growth. The second year but little cultivation will be necessary, and the third year none at all, for it may be expected by that time that the plants will have full possession and completely cover the plantation. If it be the desire of the grower to produce plants to extend his plantation, the roots should be set out in nursery rows one foot apart and two feet between rows, allowing the free use of the hoe and the application of water, if found necessary. At the end of the season, these plants may be dug up and the roots separated. No plant responds to care more readily; "no plant will grow as rapidly, no root multiply quicker and produce more stalks—in fact, no vegetable fiber is handsomer, richer or more silky than ramie." The first crop or cutting may be expected to be ready in July or August of the first year, and can be cut by hand, using a sickle or a short-bladed scythe. The second, and years following, the first cutting will probably be ready in June, and the second in the latter part of August, when a mowing machine may be used. On land well suited to the growth of the plant, three cuttings may be expected the third and successive years. The stalks should be dried and tied in bundles for convenience in handling.

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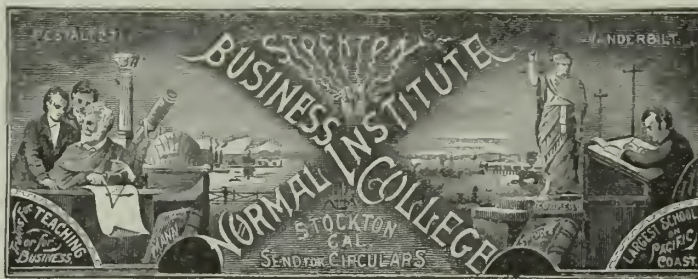


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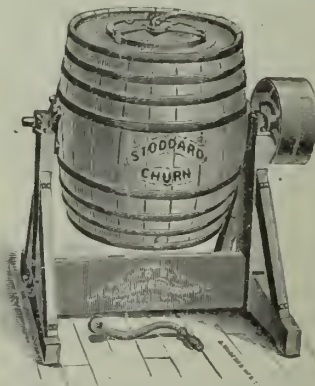
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"But," to quote the words of Mr. Keightley Miller, "the narrowed limits of the habitable earth can no longer support this vast increase of population, and famine begins to mow down its victims by millions. Now, indeed, the end of all life draws on apace. The heat and drought become more and more insupportable, rain and dew fall no longer. All springs of water fail, and the rivers dwindle down to streamlets and trickle slowly over their stony beds, and now scarcity of water is added to scarcity of food. Those who escape from the famine, perish by the drought, and those who escape the drought are reserved for a fate more awful yet. For a time the few remaining inhabitants are partially screened from the overwhelming power of the sun by a dense canopy of clouds formed by the evaporation of every lake and sea. But soon the sun scorches up these vapor banks and dissipates them into space as fast as they can form. Then the fiery orb shines out in an unutterable splendor without the slightest cloud-wreath to interpose between himself and his victims. Then the last denizens of the world are stricken down and consumed—the last traces of organic life are blotted from its surface."—*Loughman's Magazine*.

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Seeds, Plants, Etc., Continued on Pages 234-235.



## Fashion Notes.

## Ladies' Costume.

FIGURE NO. 1.—This illustrates a ladies' costume. In the present instance the costume is pictured developed in black Marquise lace made over mauve Bengaline. A knife-plaiting of Bengaline forms a pretty foot-trimming for the skirt, which is fashioned in the ordinary four-gored style; and the plaiting is effectively revealed below the full drapery, which is slightly wrinkled at the front. The drapery is gathered at the center of the back and fastened upon the basque, and at each side of the gathers deep, backward turning plaits flare in natural folds into the fulness. A small bustle may be worn or omitted, as preferred.

The full fronts of the shapely basque are disposed over the bust with becoming fulness resulting from gathers at the shoulder edges, and the fulness below is arranged at the lower edge in plaits that flare diagonally upward. The fulness in the seamless back is conformed to the figure below the waist-line by several rows of shirrings, and the edge of the basque, which is pointed at the center of the front and back, is ornamented with a band of ostrich-feather trimming. The full sleeves present the customary high curve over the shoulders; they are each ornamented at the wrist with a narrow band of feather trimming, and a similar band narrowed toward the throat decorates the neck.

While the mode seems best adapted to the various dainty nets, gauzes and filmy laces that are only appropriate for the occasion of



Fig. 2—LITTLE GIRLS' TOILETTE.



Fig. 1—LADIES' COSTUME.

ceremony, it will develop with especially good effect in soft silks and woollens in plain colors or in plaid, striped or checked designs; and combinations of silk or faille with Henrietta cloth or cashmere will also be favored. Costumes of lace or net may be decorated with velvet or satin-edged ribbon applied as lavishly as desired, rosettes of similar ribbon may trim the back of the bodice, and a full ruching of silk or a feather band may be added for a foot trimming upon the skirt. In a costume of wool goods the edge of the drapery may be decorated with a bias band of the material, and braid, pipings, cordings, rows or rosettes of velvet ribbon, fancy gimp or galloon may ornament the basque and skirt.

The round hat is becomingly trimmed at the front and back with ostrich pompons.

## Little Girls' Toilette.

FIG. NO. 2.—This consists of a little girls' dress and guimpe. The dress is here pictured developed in old-rose cashmere and darker velvet, and silk cord and tiny buttons provide the decoration. The full, round skirt is finished at the bottom with a deep band of velvet followed at the top by a row of heavy silk cord. The top of the skirt is gathered and joined to the short body, which is shaped in low, rounding outline at the neck both front and back, and closed at the back with buttons and button holes. Falling in pretty, soft folds; from the rounding upper edge of the back is a frill, which is carried over the shoulders and, narrowing gradually, is arranged on the front to form a V that flares widely from the lower edge. The upper edge of the frill is concealed beneath a silk cord, and at the center of the front between the flaring edges of the frill are placed two rows of tiny buttons, over which a fine silk cord is laced, with charming effect. The short sleeves, which, like the body, are of velvet, are gathered over plain linings to present a full puff effect, and their edges are ornamented with cord.

The guimpe is here pictured made of plain white India silk. It has a full, seamless yoke gathered over the plain front and back portions, and is nicely drawn to the figure at the waist-line by tape or elastic inserted in a casing. The shirt sleeves are gathered at the top and bottom and finished with wrist-bands trimmed with narrow lace edging; and a standing collar.

The dress will develop prettily in Henrietta cloth, serge, challis, flannel and various other seasonable woollens, and any of these fabrics may be associated with velvet, silk or Surah. Rows of velvet or grosgrain ribbon, soutache or metallic braid or feather-stitching may ornament the skirt, and any fanciful garniture preferred may be applied to the quaint little body. The guimpe may be developed in Swiss, mull, nainsook, percale or any sheer fabric, and if a dressy effect be desired.

FOR INFORMATION, OUR readers are referred to H. A. Deming, No. 124 Post St., S. F., a leading and well-established house, for paper patterns of plates illustrated in our present issue.

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General Banking. Deposits received, Gold and Silver. Bills of Exchange bought and sold. Loans on Wheat and country produce a specialty.  
July 1, 1889. A. MONTPELLIER, Manager.

## BEST TREE WASH.

"Greenbank" 98 degrees POWDERED CAUSTIC SODA (tests 99.8-10 per cent) recommended by the highest authorities in the State. Also Common Caustic Soda and Potash, etc., for sale by

T. W. JACKSON & CO.,  
Manufacturers' Agents,  
410 Market St. and 8 California St., S. F.

## "Neponset" Waterproof Paper.

NEPONSET MILLS.

THESE PAPERS are all guaranteed to be absolutely water proof, air-tight and odorless.  
For sheathing and lining of buildings; for roofing of factories, storehouses and farm buildings.  
They are entirely unaffected by heat, cold, snow or rain.



"NEPONSET" SHEATHING (color black).  
NO. 1 "NEPONSET" ROPE ROOFING (color terra cotta).  
NO. 2 "NEPONSET" ROPE ROOFING (color terra cotta).

These papers are in rolls 36 inches wide, and they contain either 250 or 500 square feet per roll, and weigh about 20 or 40 pounds per roll, respectively.

DIMMICK & LOW, Agents,  
221 Front Street, - - San Francisco, Cal.

J. F. HOUGHTON, President, J. L. N. SHEPARD, Vice-Pres.  
CHAS. R. STORY, Sec'y, R. H. MAGILL, Gen. Agt.

## Home Mutual Insurance Company,

216 Sansome Street, San Francisco.  
INCORPORATED A. D. 1864.  
Losses Paid Since Organization.....\$3,175,759 21  
Assets, January 1, 1891.....867,512 19  
Capital Paid Up in Gold.....300,000 03  
NET SURPLUS over everything.....275,901 10

## SMEDBERG &amp; MITCHELL, Insurance.

GEO. M. MITCHELL, W. R. SMEDBERG—314 CALIFORNIA STREET, San Francisco. Managers San Francisco Department New Zealand F. and M. Insurance Co., Auckland; Orient Insurance Co., Hartford. City Agents Manchester Fire Assurance Co., Manchester; Caledonian Insurance Co., Edinburgh; American Insurance Co., Newark, N. J.

## JOHN F. BYXBEE,

Commission Dealer in

## LUMBER,

Shingles, Posts,  
Pickets and Piling.

Manufacturer & Pacific Coast Agent of the Popular  
**BYRKIT-HALL**  
Sheathing Lath,  
(PATENTED).  
A valuable invention but recently used on this Coast. Send for Samples, Circulars, Price Lists, Etc.  
42 Market Street,  
ROOM 2, SAN FRANCISCO, CAL.

## SORGHUM

A LITTLE book that every farmer ought to have is the "Sorghum Hand Book" which may be had free, by addressing The Elymyer Iron Works Co., of Cincinnati, O. Sorghum is a very valuable crop for syrup-making, feed, and fodder, and this pamphlet gives full information about the different species, best modes of cultivation, etc. Send and get it and read it.

## C. L. HASKELL,

Wholesale and Retail Dealer in

HARNESS, SADDLES, BRIDLES, WHIPS,  
SPURS, BLANKETS,

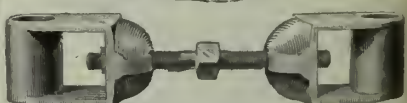
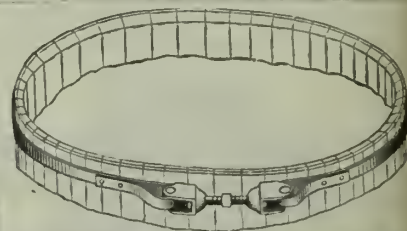
No. 10 Bush Street, and Market Street, one door below  
Battery Street, San Francisco.

JAMES M. HAVEN.

THOMAS E. HAVEN,  
Notary Public.

## HAVEN &amp; HAVEN,

ATTORNEYS AND COUNSELORS AT LAW,  
No. 530 California Street,  
Telephone No. 1746. SAN FRANCISCO, CAL.



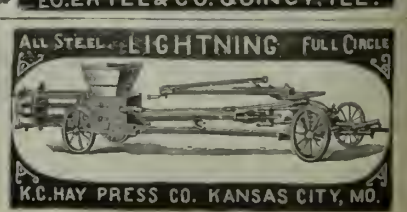
## BAND COUPLING.

Malleable Iron. All Sizes.

These Couplings are the best in the world, most powerful and cheapest. They have a ball and socket joint, right and left screw and work freely. We use them extensively in our Tank Building Department.

## WELLS, RUSSELL &amp; CO.,

Mechanics' Mills, Cor. Mission &amp; Fremont Sts., S. F.

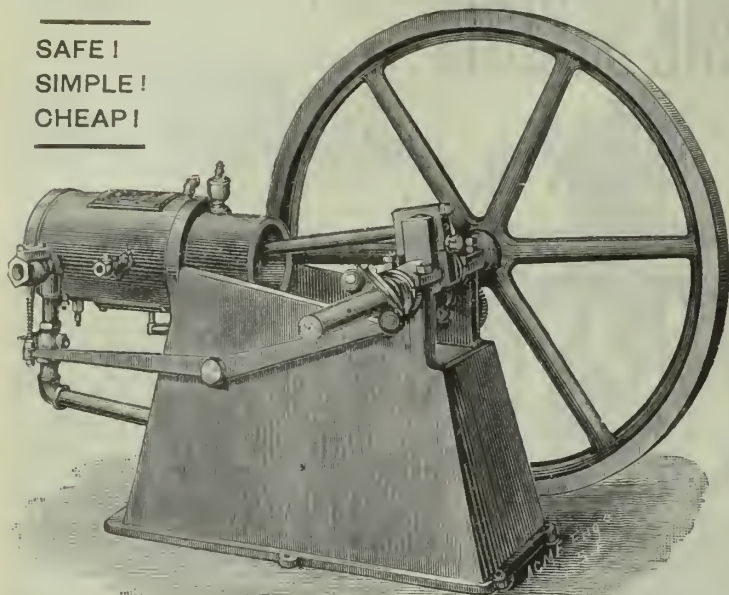








SAFE!  
SIMPLE!  
CHEAP!



## REGAN VAPOR ENGINE.

NO BOILER. FIRE. EXPLOSION. STEAM,  
ASHES OR ENGINEER.

Started Instantly Without Even a Match. Will Run on Natural or Manufactured Gas or Gasoline. The Moment Engine Ceases to Run, all Expense Stops.

Upright and Horizontal, Stationary and Marine Engines from 3-4 Horse Power, Upward.

Our Engines are especially adapted for Pumping and Irrigating and Spraying Fruit Trees; in fact, for any use where power is required.

OVER 400 IN USE.

POPE & TALBOT, LUMBER, Office, 204 California Street,  
SAN FRANCISCO, Feb. 25th, 1890.

REGAN VAPOR ENGINE Co.—Gentlemen: The 4 H. P. Vapor Engine I bought of you last May has been in constant use ever since, and has given me entire satisfaction. I have found the engine to be all that you claimed for it, and more too. You can use my name for reference if you so desire. I am, yours truly,  
H. TALBOT.

We Carry Thos. Kane & Co's Famous Racine Launches, fitted with our New Compound Engines.

Send for Circular.

## REGAN VAPOR ENGINE CO.,

221-223 First Street, San Francisco, Cal.

### Cheaper Than Windmills for Farmers!

Our Perfected "Safety" Engines Cost to Run only 1-8 Gallon of Gasoline per Horsepower per Hour. No Boiler, Fire, Smoke, Steam, Ashes or Heat. No Engineer, No License, No Danger. Single and Double Acting. 1/2 H.P. to 20 H.P.

GENTLEMEN—The 2-H. P. Engine received and set up yesterday. We attached it to part of the machinery in my shop, and it ran my Drill Press, a small Lathe, a large 24-inch by 14-foot Lathe, and a set of Emery Wheels, all of which it handled easily, to our great surprise. Yours very respectfully,  
J. B. HENDERSON.

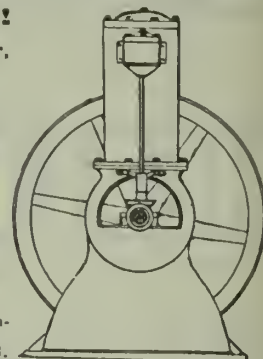
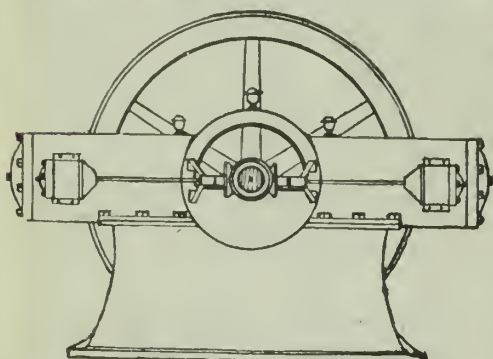
GENTLEMEN—I am satisfied, after running for over a month my Bean Cleaner, etc., with the 4-H. P. Engine you sent me, that it is much the best Gas Engine I have seen. The electrodes are certainly superior to all others; also your safety rotary slide-valve, which is the perfection of simplicity, positiveness and durability; I am satisfied it will develop much more power than we have need for. I also want a 3 or 1-H. P. for my wife and daughters to use about the house; we have a rotary clothes washer, can also do the churning, etc. I do not know of any better recommendation than to order a second engine. Respectfully yours,  
P. C. HIGGINS.

NOTE.—Both of these Engines were shipped to the parties named, and were set up by them solely by the diagram and printed directions we sent them.

Pumping Plants, Yachts & Launches,  
Street Cars, Fire Engines, Water  
Works, Etc.

ELECTRIC VAPOR ENGINE CO.  
218 California St., San Francisco.

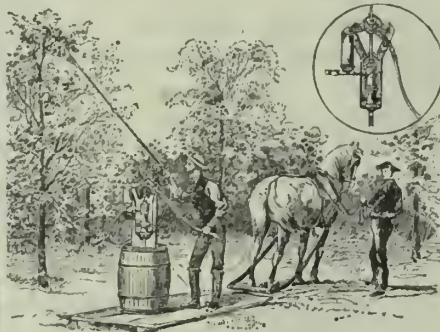
Complete Plants of all kinds, Station-  
ary or Mounted on Wheels  
U. S. AND FOREIGN PATENTS.



## SPRAY PUMPS!



Star Spray Pump.



The Goulds Spray Pump.

WITH BAMBOO EXTENSION ALL FITTED UP, COMPLETE WITH HOSE, BARREL AND SPRAY NOZZLE. These cuts show in faithful operation our Gould's and Star Spray Pumps. They are utilized for spraying Fruit Trees, Orange Groves, Vines, and in fact, all trees or shrubbery infested with the destructive insects which infest and do so much injury to Orchards, Vineyards, Orange Groves, etc. They are made entirely of brass, with the exception of frame and handle, and are strong and heavy; the valves being made entirely of metal and rubber, and will not be affected by the corrosive solutions such as Caustic Soda Acids, Lye, or any other solution that may be used to kill the destructive insect. Send for Special Circular and Prices of Spray Pumps.

NOTICE.—ONGERTH'S LIQUID TREE PROTECTOR is the best Spray for killing Red Scale, Black Scale, White Cuckoo Scale, San Jose Scale, or any other insect. Send for Special Circular.

WOODIN & LITTLE.

312 and 314 Market Street, junction of Bush,

SAN FRANCISCO, CAL.

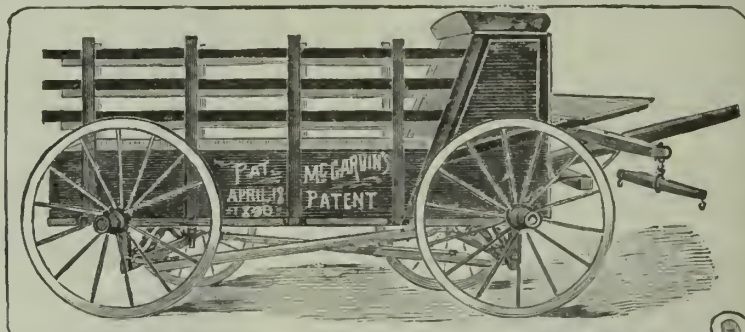
PRICE,

\$80

—TO—

\$145.

Received  
First  
Premium  
State  
Fair  
1890.

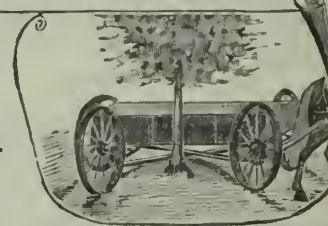


McGARVIN'S

## PATENT FRUIT TRUCK

MANUFACTURED AND FOR SALE BY

SMITH McGARVIN, San Jose, Cal.



## BEET SUGAR FACTORIES

E. H. DYER & CO.,

—BUILDERS OF—

Beet Sugar Factories and Refineries,

ALVARADO, CAL.

ERECTING AND OPERATING COMPLETE PLANTS A SPECIALTY.

Having arranged with a leading American firm for the manufacture of our machinery, we are prepared to build complete plants and furnish skilled labor to operate them when desired.

We are the builders of the Alvarado, Cal., Sugar Works, and the Utah Sugar Co.'s Works, now in course of construction. We guarantee our work. Correspondence solicited.

## "ASPINWALL" POTATO PLANTER

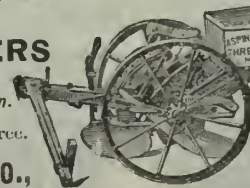
DISTRIBUTES  
FERTILIZERS

The Triumph of  
Modern Invention.

Illustrated Circular sent free.

ASPINWALL MFG CO.,

TRUMAN, HOOKER & CO., AGENTS, SAN FRANCISCO, CAL.



PLANTS  
CORN, BEANS,  
ENSILAGE, ETC.

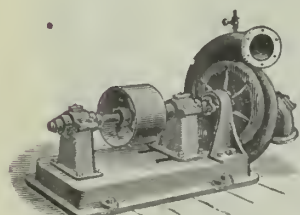
Mention this paper.

Three Rivers, Michigan.

## GREAT REDUCTION!

IN ORDER TO CLOSE OUT OUR RETAIL CARRIAGE BUSINESS in San Francisco, we will sell our large stock on hand of first-class Carriages, Top Buggies, Phaetons, Four Spring Wagons, Carts and Harness at Cost. Now is the time if you want to buy a good carriage cheap. Salesrooms, 220 and 222 Mission St., San Francisco, Cal.

BRIGGS CARRIAGE CO., C. Grego Agent.



CENTRIFUGAL PUMP.

—PACIFIC COAST AGENTS—  
BABCOOK & WILCOX  
Patent Water Tube Steam Boilers.

Estimates Furnished on Application.

Send for Catalogues.

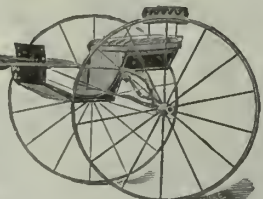
WORKS:

FIRST and STEVENSON STS., S. F.

THE BLUE RIBBON CART, WITH PHAETON BODY.

\$35

Has a seat wide enough for two, with box underneath for parcels. The body has been lengthened, is securely framed and strengthened by making the panels in one piece. Seven wheels, steel axles, and curved dash. Finished in scarlet lake or brewster green. The "Blue Ribbon" has proved to be the best built, most popular and best selling low-priced Phaeton Cart ever brought to this market. With Patent Spiral Spring Lazy Back. Shipped securely crated. Weight, 175 pounds.



FRANK BROTHERS, 33 & 35 MAIN STREET, SAN FRANCISCO.



## San Jose Notes.

A RURAL representative visited San Jose last week. There seems to be an increased prosperity, as shown by extensive building of fine residences and great activity in manufacturing plants.

The San Jose Agricultural Works have recently extended their shops by an addition of two stories to their building, 36x100 feet and 20x50 feet. The San Jose Cultivator, Fruit wagon, and other specialties in agricultural implements have been in large demand, and their business seems to be largely increased from last year.

Mr. Smith McGavin's Fruit-wagon has been well tested and found to be a valuable adjunct to the orchard and vineyard. He had just filled several orders from other portions of the State, and was at work on a line of 15 wagons—about equally divided between the two-horse and four-horse wagons.

The proprietors of the Garden City Ironhatch were shipping two of their machines and had orders for several more.

In anticipation of a good fruit crop, the manufacturers of Hamilton's Prune Grader had made preparations to build extensively so as to be ready for the fruit season.

Messrs. Bute and Stephens are now the proprietors of the Garden City Windmill, and have enlarged their factory on the Alameda to meet the demand for this well-known and popular windmill.

Several new factories and industries have been projected, and will likely be established in San Jose soon, largely due to the facilities and advantages for manufacturing purposes, and the enterprise and liberality of her leading citizens of wealth.

## What the Great Fruit-Dealers Think of the Rural Press.

Messrs. Dewey & Co., San Francisco, Cal.—GENTLEMEN: Inclosed please find our check for \$3, as a renewal for your paper for 15 months commencing Feb. 21, 1891. It affords us much pleasure to renew our subscription with your valuable paper, as we were pioneers in the California fruit trade, having shipped our first car in 1869, and we have continued in the business ever since and have seen your paper, as well as our business, steadily advance in the interests of the California fruit industries. We take great pleasure in receiving your paper and reading the various items of interest that you publish from time to time. We hope you will continue to prosper and develop the great industries of California, as we believe to-day, as we always have, that California is destined to become one of the greatest fruit countries upon the globe; her productions are steadily growing in favor and quality.

Wishing you happiness and success, we are, your very respectfully,

PORTER BROS. COMPANY.  
By WASHINGTON PORTER, President.  
Chicago, Feb. 21, 1891.

THE greatest novelty introduced by seedsmen this season is the "winter pineapple muskmelon." It is a native of one of the Sandwich Islands; has been grown successfully in the United States the last two years and will undoubtedly become one of the most popular kinds in cultivation if it possesses one-half the qualities claimed for it by the introducer. Aside from its remarkably fine eating qualities and pleasant flavor, it is said to keep sound and sweet all winter and late in the spring. It certainly should be given a trial by all lovers of this delicious fruit. Samuel Wilson, of Mechanicsville, Pa., one of the most popular seed-growers in the United States, is the introducer of this valuable melon. His large and handsomely illustrated catalogue can be had free on application. Send for it.

TO VISIT THE CITRUS FAIR.—President Eugene J. Gregory of the State Board of Trade has appointed the following committee to visit the Los Angeles Citrus Fair next Tuesday: Albert Gallatin, A. Rapo, Mark L. McDonald, T. E. B. Rice, H. M. Byington, L. L. Baker, John P. Irish, A. Caminetti, Jesse D. Carr, J. A. Caldwell, Wm. H. Mills, J. S. McCue, J. S. Emery, C. F. Crocker, A. A. Hibbard, Tyler Beach, J. A. Morrissey, N. P. Chipman, M. M. Estee and John Q. Brown. Most of the gentlemen have accepted the appointment.

NEW SEED CATALOGUE.—Sevin Vioent & Co., 607 Sansome street, have just issued a handsome new catalogue. This old and reputable house carries a complete stock of everything in their line, and will supply old and new friends promptly with fresh and reliable goods. Read advertisement on another page and send for the new catalogue.

It is quite probable that you may need the services of a physician some day; but you can postpone the time indefinitely by keeping your blood pure and your system invigorated through the use of Ayer's Sarsaparilla. Prevention is better than cure.

## NEWSPAPER AGENTS WANTED.

Extra inducements will be offered for a few active canvassers who will give their whole attention (for a while at least) to soliciting subscriptions and advertisements for this journal and other first-class popular newspapers. Apply soon, or address this office, giving address, age, experience and reference. Special inducements to old agents.

DEWEY & Co., Publishers,  
No. 220 Market St., S. F.

## List of U. S. Patents for Pacific Coast Inventors.

Reported by Dewey & Co., Pioneer Patent Solicitors for Pacific Coast.

FOR WEEK ENDING FEB. 24, 1891.

- 447,038.—SHUTTLE MOTION FOR LOOMS—J. W. Babcock, San Diego, Cal.  
446,912.—SET-TRIGGER—O. A. Bremer, S. F.  
447,040.—MUSIC LEAF TURNER—E. W. Burnham, San Diego, Cal.  
446,919.—BLASTING FUSE—D. B. James, S. F.  
446,922.—FIRE-PROOF PAINT—I. F. Merrill, S. F.  
446,876.—MIDDINGS PURIFIER—Miller & Walker, Oregon City, Or.  
447,195.—ANNUNCIATOR—J. E. A. Miller, S. F.  
447,013.—GATE—J. F. Millerick, S. F.  
446,926.—TWINE MACHINE—J. W. Perkins, San Jose, Cal.  
447,006.—PERCH FOR BIRD CAGES—J. F. Sweetney, S. F.  
446,899.—METALLIC RAILWAY TIE AND CHAIR—H. P. Sweet, Los Angeles, Cal.  
446,900.—METALLIC ROADBED DRAIN AND SAFETY TIE—H. P. Sweet, Los Angeles, Cal.  
446,957.—ENGINE GOVERNOR—E. Thompson, S. F.  
446,905.—CABLE RAILWAY—Watriss & Kaighin, S. F.  
446,939.—METALLIC LATH MACHINE—J. Weichart, S. F.

The following brief list by telegraph, for March 3d, will appear more complete on receipt of mail advices:

California—Charles H. Benoit and A. Pillot, San Jose, window screen; Luther H. Buchanan, Pasadena, assignor of one-half to J. D. Shorb, San Gabriel, electric arc lamp; John A. Buffer, San Francisco, ice-cream freezer. Washington—George W. Ansley and J. H. Boyd, Medical Lake, said Boyd assignor to said Ansley, clothes drier; Robert McMahon, assignor of one-half to Gaston, Seattle, car coupling.

NOTE.—Copies of U. S. and Foreign patents furnished by Dewey & Co., in the shortest time possible (by mail or telegraphic order). American and Foreign patents obtained, and general patent business for Pacific Coast inventors transacted with perfect security, at reasonable rates, and in the shortest possible time.

## A Clever Fraud.

The Curtis Publishing Company of Philadelphia, Pa., with a branch office in the Chronicle building, San Francisco, have recently been much annoyed by a man who, fraudulently claiming to be their agent, has been collecting money throughout California and Oregon, representing that the same would be forwarded for subscriptions to the Ladies' Home Journal. This man, who travels under the aliases of Watson, Hill and Wood, and who sometimes gives his address as San Francisco, is an impostor, inasmuch as he sometimes offers a reduced rate of subscription. Quite a number of people have been victimized, and the Curtis Publishing Company would be glad to receive information which will lead to a knowledge of the present whereabouts of this person. They also inform the RURAL PRESS that any one offering their paper at any other than the regular subscription price (\$1 per year) may justly be regarded with suspicion.

SCHOOL FOR NURSES.—We take pleasure in calling attention to the good work being done at the Fabiola hospital, corner Broadway and Moss avenue, Oakland, in the instruction of female nurses. It is a thoroughly well-conducted establishment and a great public benefactor in this and other respects. Address, for circulars and information, as above.

W. T. EDDY of San Jose asks several important questions regarding State and school lands, which will receive attention through the columns of the RURAL PRESS as soon as the required data is secured.

## Raisin, Fruit and Grain Lands

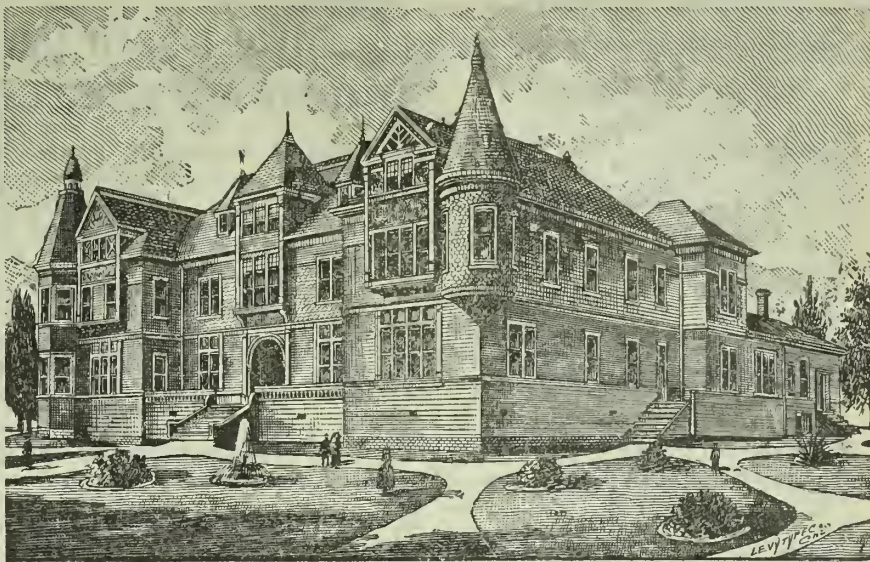
## AT EXTREMELY LOW PRICES.

Seven miles S. W. of Tulare city. 164 acres of rich land is offered for sale, with well-improved homestead, large flowing artesian well, reservoir, alfalfa, orchard (seven years old), pasture, one of the healthiest and most comfortable seven-room, two-story residences in Tulare valley. Must be seen to be appreciated. Will be sold soon at a very low price and extraordinary reasonable terms to a good purchaser. Some 320 acres of good and well-cultivated land adjoining is also offered low. Address E. M. Dewey, Publisher, Porterville, Tulare Co.; A. T. Dewey, 220 Market St., S. F.; or call on Capt. Thos. H. Thompson, Tulare City, Cal.

**DEWEY & CO**  
**PATENT**  
**SOLICITORS.**  
220 MARKET ST. S. F.  
ELEVATOR 12 FRONT ST. S. F.

**TOKOLOGY** Complete LADIES GUIDE  
The very best book for AGENTS. Sample pages free.  
Prepaid \$2.75. A. B. Stockham & Co., 157 La Salle St., Chicago.

## FABIOLA HOSPITAL, OAKLAND, CALIFORNIA.



THE FABIOLA HOSPITAL is healthfully and pleasantly located on high ground in the suburbs of Oakland, accessible from every part of the city, the street cars passing the door.

THE APPOINTMENTS of the institution are of the best class; the building thoroughly warmed with Harvey's system of hot water heating; rooms large and sunny; neatly furnished with all the comforts of a private home for the sick and the convenience of a first-class general hospital. Sewerage perfect.

WELL TRAINED NURSES are in attendance, and patients will receive all nursing and care required for any ordinary case without extra charge; but patients in private rooms, requiring a special nurse in constant attendance, will be charged extra.

MATERNITY CASES are given special care, and large sunny rooms are set apart exclusively for such use, with most skilled physicians and careful nurses.

Should patients desire to employ a physician other than those on the hospital staff, they are allowed to do so at their own expense.

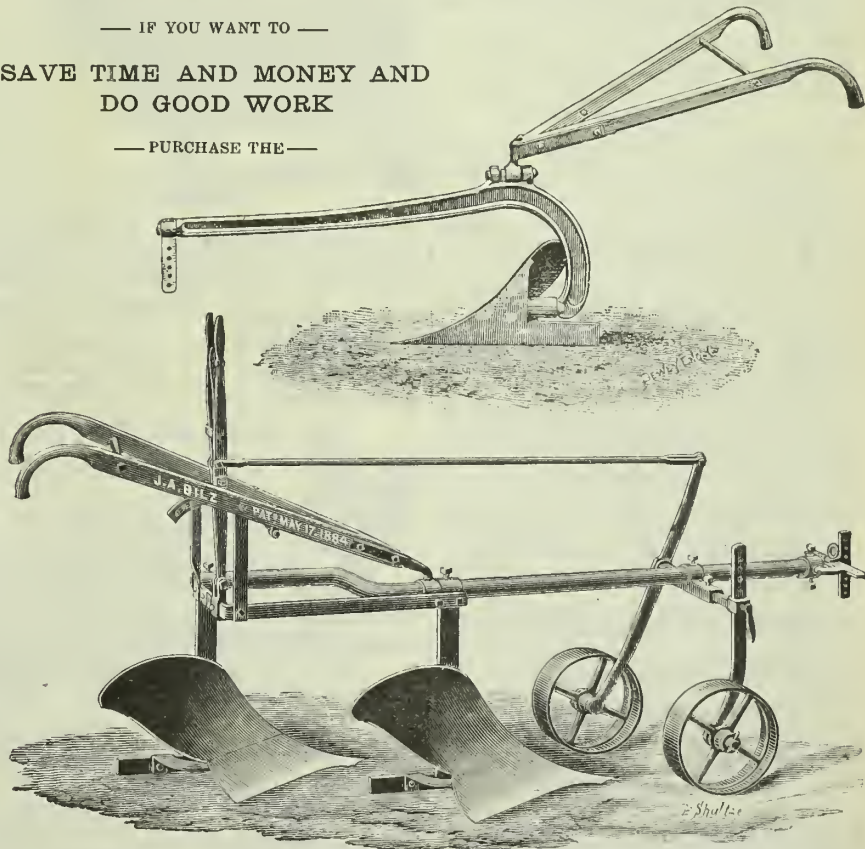
Address RESIDENT PHYSICIAN, Fabiola Hospital, Oakland, California. Telephone No. 943

## ORCHARDISTS AND VINEYARDISTS

— IF YOU WANT TO —

SAVE TIME AND MONEY AND DO GOOD WORK

— PURCHASE THE —



## BILZ GANG AND SINGLE PLOWS.

The Gang Plow cuts 18 inches, and two horses will pull it as easily as a 12-inch Single Plow, and does better work. The Single Plow has no standard, and so is not liable to catch the vines or choke up in weeds; the beam fastens in a socket behind the moldboard and can be thrown to or from the land in a straight line.

By throwing the beam from the land, the plow can be put under the vine a foot and the beam will not touch the branches, and the singletree will not interfere.

The handles can be changed from one side to the other and raised and lowered to suit.

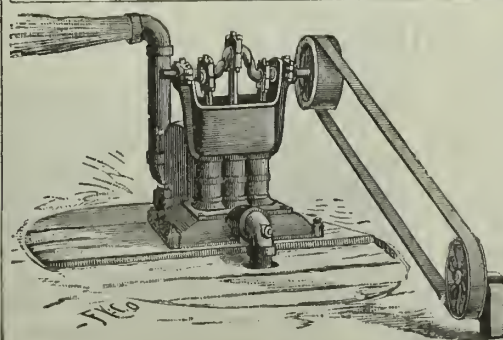
First Premium awarded both Plows at Mechanics' Fair, 1889, and at Fresno Fair, 1890. Address

**J. A. BILZ, Pleasanton, Cal.**

Manufacturer of the Best Road Cart and the Lightest Speeding Cart in the State.

AGENTS—TRUMAN, HOOKER & CO., SAN FRANCISCO.  
E. WADE HITCHINGS, FRESNO, CAL.

## TRIPLE ACTING IRRIGATING PUMP.



It is very easy running and throws more water with the same power than any other pump—from 3000 to 50,000 gallons per hour, according to size of pump.

It is a POWER PUMP and can be run by steam, horse or any other power.

Send for descriptive catalogue and price list.

**F. W. KROGH & CO.,**  
51 BEALE ST., SAN FRANCISCO.



## Breeders' Directory.

Six lines or less in this Directory at 50c per line per month

### HORSES AND CATTLE.

**PERRIN STANTON**, Sacramento, Cal., Importer and Breeder of registered A. J. C. Jersey Cattle of the Best Strains. Stock for sale.

**HENRY HAMILTON**, Westley, Cal., breeder of Kentucky Jacks and Jennies, Draft Horses and Holstein Cattle. Jacks, Horses and Mules for sale.

**J. R. ROSE**, Lakeville, Sonoma Co., Cal., breeder of Thoroughbred Devons, Roadsters and Draft Horses.

**P. PETERSEN**, Sites, Colusa Co., Importer & Breeder of registered Shorthorn Cattle. Young bulls for sale.

**WILD FLOWER STOCK FARM**, Fresno Co. A. Hellbron & Bro., Props., Sac. Breeders of thoroughbred strains and Cruikshank Shorthorns; also Registered Herefords; a fine lot of young bulls in each herd for sale.

**CHARLES E. HUMBERT**, Cloverdale, Cal., Importer and Breeder of Recorded Holstein-Friesian Cattle. Catalogues on application.

**PERCHERON HORSES**.—Pure bred horses and mares, all ages, and guaranteed breeders, for sale at my ranch near Lakeport, Lake Co., Cal. New catalogue now ready. Wm. B. Collier.

**WILLIAM NILES**, Los Angeles, Cal. Thoroughbred Registered Holstein and Jersey Cattle. None better.

**T. PHILLIPS**, Simi, Ventura Co., Cal. Pure Bred Percheron Horses for sale.

**COTATE RANCH BREEDING FARM**, Page's Station, S. F. & N. P. R. R. P. O., Penn's Grove, Sonoma Co., Cal. Willfred Page, Manager. Breeders of Short Horn Cattle, English Draft Horses, Spanish Merino Sheep and Berkshire Swine.

**PURE-BRED HOLSTEIN FRIESIAN Cattle** for Sale. Bonnie Brae Cattle Co., Hollister, Cal.

**JOHN LYNCH**, Petaluma, breeder of thoroughbred Shorthorns. Young stock for sale.

**J. H. WHITE**, Lakeville, Sonoma Co., Cal., breeder of Registered Holstein Cattle.

**M. D. HOPKINS**, Petaluma, importer and dealer in Eastern registered Shorthorns, Red Polled Cattle, Holsteins, Devons and Shropshire Sheep.

**PETER SAXE & SON**, Lick House, San Francisco, Cal. Importers and Breeders, for past 18 years, of every variety of Cattle, Horses, Sheep and Hogs.

### POULTRY.

**W. O. DAMON**, Napa. Clearance sale of Brahmas, Leghorns and P. Rocks. Send for Price List. A No. 1 Pacific incubator (300-egg capacity) in perfect order, for sale at \$40.

**MADISON H. CRITCHER**, Bonnie Doon, Santa Cruz Co., Cal. Thoroughbred Poultry. Settings, \$3.

**JOHN McFARLING**, 708 Twelfth St., Oakland, Cal., Importer and Breeder of Choice Poultry. Send for Circular. Thoroughbred Berkshire Pigs.

**E. HART**, Clements, San Joaquin Co., Cal. Breeding of Bronze Turkeys a specialty. Hens \$5, Toms \$3 each. Eggs, \$3 for 13; reduction on two or more sittings.

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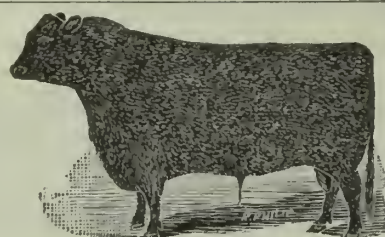


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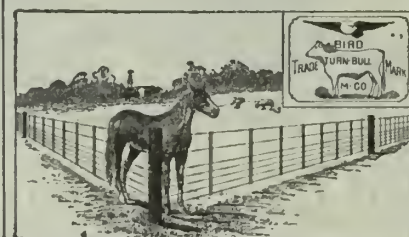
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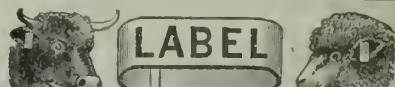
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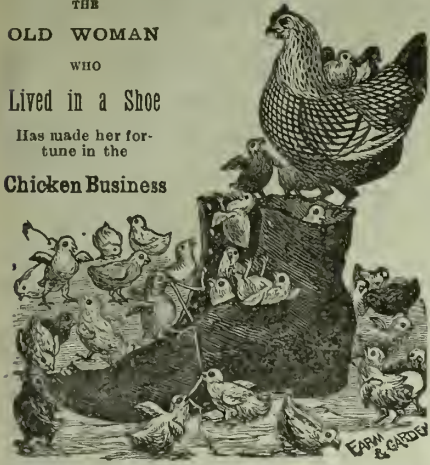
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## S. F. MARKET REPORT

## Market Review.

## DOMESTIC PRODUCE, ETC.

SAN FRANCISCO, March 4, 1891.

High waters and bad roads are the order of the day, interfering very materially with general trade in farm products. The last rains being warm have caused vegetation to make rapid growth. All grain crops are growing finely, while good pasturage is assured at an early day. Trading in cereals has been quite free, with large movements in wheat. The market shows quite an advance in prices. The Eastern and foreign wheat markets are higher. The following is to-day's cablegram:

LIVERPOOL, March 4.—Wheat—Hardening. California spot lots, 75 11d; off coast, 40s; just shipped, 38s 9d; nearly due, 39s 6d; cargoes off coast, firm; on passage quiet but firm; Mark Lane wheat, quite steady, wheat and flour in Paris, firm; weather in England, seasonable.

## Foreign Grain Review.

LONDON, March 2.—The *Mark Lane Express*, in its review of the British grain trade for the past week, says: English wheat is in good inquiry at an average rise of 6d. Foreign is held for 1s advance on whies and od on reds. Flour is firm; corn is higher; oats are firm. At to-day's market California wheat was dearer.

## Liverpool Wheat Market.

The following are the closing prices paid for wheat options per cwt. for the past week:

	Mar	April	May	June	July	Aug.
Thursday....	75 10 1/2	75 10 1/2	75 10 1/2	75 10 1/2	75 10 1/2	75 10 1/2
Friday.....	75 10 1/2	75 10 1/2	75 10 1/2	75 10 1/2	75 10 1/2	75 10 1/2
Saturday.....	75 10 1/2	75 10 1/2	75 10 1/2	75 10 1/2	75 10 1/2	75 10 1/2
Monday.....	75 10 1/2	75 10 1/2	75 10 1/2	75 10 1/2	75 10 1/2	75 10 1/2
Tuesday.....	75 10 1/2	75 10 1/2	75 10 1/2	75 10 1/2	75 10 1/2	75 10 1/2

The following are the prices for California cargoes for off coast, nearly due and prompt shipments for the past week:

	O. C.	P. S.	N. D.	Market
Thursday....	39s 9d	38s 9d	39s 6d	Strong
Friday.....	40s 0d	38s 9d	39s 6d	Strong.
Saturday.....	40s 0d	38s 9d	39s 6d	Firm
Monday.....	40s 0d	38s 9d	39s 6d	Firmly h'd
Tuesday.....	40s 0d	38s 9d	39s 6d	Held high

## Eastern Grain Markets.

The following shows the closing prices of wheat at New York for the past week, per bushel:

	Day.	Mar.	April.	May.	June.	July.	Aug.
Thursday.....	109 1/2	109 1/2	109 1/2	109 1/2	109 1/2	109 1/2	109 1/2
Friday.....	109 1/2	109 1/2	109 1/2	109 1/2	109 1/2	109 1/2	109 1/2
Saturday.....	109 1/2	109 1/2	109 1/2	109 1/2	109 1/2	109 1/2	109 1/2
Monday.....	109 1/2	109 1/2	109 1/2	109 1/2	109 1/2	109 1/2	109 1/2
Tuesday.....	109 1/2	109 1/2	109 1/2	109 1/2	109 1/2	109 1/2	109 1/2

The closing prices for wheat have been as follows at Chicago for the past week, per bushel:

	Day.	Mar.	April.	May.	June.	July.	Aug.
Thursday.....	96 1/2	96 1/2	96 1/2	96 1/2	96 1/2	96 1/2	96 1/2
Friday.....	97 1/2	97 1/2	97 1/2	97 1/2	97 1/2	97 1/2	97 1/2
Saturday.....	97 1/2	97 1/2	97 1/2	97 1/2	97 1/2	97 1/2	97 1/2
Monday.....	97 1/2	97 1/2	97 1/2	97 1/2	97 1/2	97 1/2	97 1/2
Tuesday.....	97 1/2	97 1/2	97 1/2	97 1/2	97 1/2	97 1/2	97 1/2

NEW YORK, March 4.—Wheat—\$1.09 1/2 @ 1.10 for March, \$1.06 1/2 to \$1.06 3/4 for May, \$1.04 for June, \$1.00 1/2 @ 1.00 3/4 for July, 97 1/2 c for August, and 99 1/2 for December.

CHICAGO, March 4.—Wheat—97 1/2 c for May and 92 1/2 c for July.

## Statistics California Farm Animals.

WASHINGTON, Feb. 27.—The statistician of the Interior Department has issued a report giving the numbers and values of farm animals, railroad transportation rates and other interesting matters. In California the number of cattle has increased one per cent during the year; sheep decreased seven per cent, and horses, mules, milch cows and hogs were stationary in number. Of horses, California is fifteenth in the list, with 360,921, valued at \$24,262,579; in the number of mules, it is sixteenth, with 43,650, valued at \$3,467,093; in the number of sheep, it is third, with 3,712,310, worth \$8,157,801; in the number of hogs, it is twenty-fourth, possessing 517,600, worth \$2,723,611; in milch cows, it is twentieth, having 283,059, valued at \$8,179,711; in oxen and other cattle, it is twenty-second, with 558,244, valued at \$9,895,321.

With reference to horses in California the report says that great progress has been made in the improvement of their quality during the past few years. Broncho horses of 10 years of age have, by being bred to blooded stock, given place to good roadsters and draft horses. Greater speed has been given to the common roadster, together with the durability of the broncho and size and symmetry to the general draft horse. While the number of cattle is only about the same as last year, there has been great improvement in the quality of common stock by the introduction of better blood, such as Holstein, Durham, Devon, Jersey and Polled Angus. There are many choice pure herds of the above breeds in the State. Owing to the reclaiming of the lands over which large herds of sheep roamed formerly by vineyardists and orchardists, there has been very little, if any, progress in sheep husbandry.

## Hops.

NEW YORK, Feb. 27.—A line of about 100 bales of choice Oregon hops was sold yesterday at 31c. This is regarded as a high price, as it is reported choice goods can be had at 30c. A lot of choice State sold for 27c. The exports to Europe since the beginning of the season are 30,294 bales.

NEW YORK, March 1.—Hops feel the effect of the long dullness. No wholesale outlet for many weeks. Light brewing wants have been supplied from the country at cheap rates, 26c @ 27c, to the detriment of spot. Best State and Pacific, 30c @ 31c; common to prime, 23c @ 29c; olds, neglected.

## Dried Fruits.

NEW YORK, Feb. 27.—Moderate quantities of good unpeeled California peaches in bags have been sold at 14c @ 15c. The ruling price for prime goods is 15c.

NEW YORK, March 1.—Pacific evaporated apples that compare well with State in appearance, 13c. Prunes, weak; four sizes offered at close at 10c @ 10 1/2 c, boxes; 9c @ 10c bags. Apricots and peaches, dull and unchanged.

## Visible Supply of Grain.

NEW YORK, March 2.—The visible supply of grain in store and afloat, as compiled by the New York Produce Exchange, is as follows. Wheat, 23,250,000 bushels, a decrease of 75,000 bushels;

corn, 2,807,000 bushels, an increase of 211,000; oats, 2,948,000 bushels, an increase of 65,000; barley, 2,440,000 bushels, a decrease of 230,000.

## Eastern Wool Markets.

NEW YORK, Feb. 27.—*Bradstreet's* will say: A limited supply of all grades of domestic wools has caused a quiet trade in all markets. Transactions are confined mostly to foreign wools. Australian wools continue to sell readily at high values. At the London sales choice wools have advanced steadily since the opening. Sales closed Thursday, 12,000 bales having been secured for the American market. The larger part of these selections are said to be among the finest that were offered. As the mills are sufficiently supplied for the present, a change in quotations is not expected. Among domestic grades, pulled wools are the most active, Ohio and Michigan wools are in strong demand, but stocks are so light that manufacturers have been compelled to take Australian wools instead. Carpet wools are moving more freely, and prices are firmer in consequence. While holders of choice lots could secure an advance, and in some instances have done so, current quotations have not changed from those of a week ago.

NEW YORK, March 1.—Wool holds good. Stocks much reduced. Eastward prices strong. Demand vigorous. Some specials tending higher. All the prominent mills are said to be working close to capacity. No falling off in orders for woolen goods. Australian continues to sell freely. It is timely to note that buyers express much dissatisfaction over lines of domestic fleeces of the season that show careless management of growers, and to this fact may be ascribed much of the attention now turned to reliable foreign.

Boston market quiet, firm, except faulty remnants.

## Local Markets.

	Buyer Season	Seller 1891	Buyer 1891
Thursday....	133 1/2	103 1/2	102 1/2
Friday.....	133 1/2	103 1/2	102 1/2
Saturday.....	134 1/2	103 1/2	102 1/2
Monday.....	137 1/2	106 1/2	103 1/2
Tuesday.....	139 1/2	104 1/2	103 1/2

\*After August.

	Buyer Season	Seller 1891	Buyer 1891
Thursday....	141 1/2	141 1/2	136 1/2
Friday.....	141 1/2	141 1/2	136 1/2
Saturday.....	141 1/2	141 1/2	136 1/2
Monday.....	141 1/2	141 1/2	136 1/2
Tuesday.....	141 1/2	141 1/2	136 1/2

BAGS.—The market shows continued strength, with holders asking from 6 1/2 c to 6 3/4 c for standard size hand sewed May-June delivery.

BARLEY.—The sample market has advanced under a good demand and light stocks. In futures, trading has been active. The following are to-day's Call Board sales:

Morning Session: Seller 1891—200 tons, \$1.03; 300, \$1.03 1/2; 100, \$1.04 1/2. Seller 1891, new—100 tons, \$1.03 1/2. Buyer season—100 tons, \$1.38 1/2; 100, \$1.38 1/2; 400, \$1.39; 400, \$1.38 1/2 c. Afternoon Session: Buyer 1891—100 tons, \$1.39 1/2. Buyer season—100 tons, \$1.39; 100, \$1.38 1/2; 200, \$1.38 1/2. Seller 1891—600 tons, \$1.04; 200, \$1.04 1/2; 100, \$1.04 1/2. Seller 1891, new—200 tons, \$1.04 1/2 c.

BUTTER.—The market has gone from bad to worse, closing to-day considerably demoralized. Receipts are free. Sales for shipments up north show an increase, but to sell, low prices had to be accepted.

CHEESE.—The market is weak at lower prices under freer receipts and heavier supplies to draw from. Buyers are offish, believing that still lower prices must obtain.

EGGS.—The market is firm. The prevailing opinion is that with clear weather and improved roads, receipts will be large and prices shade off.

FLOUR.—The market is firm under a fair demand and lighter receipts from Oregon and Washington.

WHEAT.—The market for sample parcels is strong at a slight advance. Holders were free sellers before tax assessment day, and are now offering only fairly. In futures, trading on Call is light. The following are the reported sales made on to-day's Call:

Morning Session: Buyer season—200 tons, \$1.46; 100, \$1.45 1/2 c. Afternoon Session: Buyer 1891—600 tons, \$1.49; 400, \$1.49 1/2; 400, \$1.49 1/2. Buyer season—700 tons, \$1.47; 100, \$1.46 1/2; 200, \$1.46 1/2. Buyer 1891, after August 1st—100 tons, \$1.44; 700, \$1.44 1/2; 100, \$1.44 1/2 c.

## Market Information.

## Produce Receipts.

Receipts of produce at this port for the week ending March 3d, were as follows:

Flour, qr. sks....	183 188	Middlings, sks....	2,664
Wheat, cts....	448 707	Alfalfa, "....	"
Barley, "....	22 18	Chicory, bbls....	229
Rye "....	890	Broomcorn bbls....	"
Oats "....	1,196	Hops, hls....	108
Corn "....	"	Wool, "....	17
*Butter "....	814	Hay, tons....	1,260
do hxs "....	456	Straw "....	36
do bbls "....	11	Wine, gals....	244,208
do kegs "....	"	Brandy, "....	22,840
do tubs "....	"	Raisins, bxs....	4,733
do 1/2 hxs "....	212	Honey, cs....	5
†Cheese, cts....	480	Walnuts, sks....	15
do hxs "....	37	Flaxseed, "....	1,315
Eggs, doz....	61,070	Mustard, "....	113
do "Eastern....	"	Almonds, "....	267
Beans, cts....	3,989	Peanuts, "....	23
Potatoes, sks....	27,752	Popcorn, "....	10
Onions, "....	1,473	Beet sugar, hbls....	"
Brans, "....	6,826	do do sks....	"
Buckwheat "....	"	"	"

\*Overland 531 cts. †Overland 33 cts.

## Cereals.

The local wheat market gained strength during the past week in sympathy with higher quoted markets coming through from England, and also more available tonnage at this port. At the advance interior holders have been selling freely, which meeting exporters' immediate requirements, caused them to be less anxious. The surplus in first hands is said

to be light, more being in second and third hands than in first hands. It is claimed that the large bulk of Oregon and Washington's surplus has been marketed.

The vessels on berth at this port for wheat loading have a carrying capacity of about 150,000 short tons. When they are loaded, there will be very little wheat in store in the San Francisco, Port Costa and Stockton warehouses, unless receipts from the interior become larger. The disengaged deep-sea vessels in port have a carrying capacity of about 30,000 short tons.

Previous to the present rain, advices from the agricultural districts reported that the crop outlook was of the most favorable character, which the writer has reason to believe still holds good. The only fear that need now be entertained is loss from flood on the lowlands provided the Sacramento and San Joaquin rivers should break through the levees, which now control their waters. Oregon and Washington advices are confirmatory of good crop prospects. The rains in those States came at the proper time, and with usual favorable spring weather, the yield to the acre will be about the same as it was in last year.

The Call Board gamblers in futures have not succeeded in keeping the market for barley down. While not successful in this, they did succeed at the very low prices in frightening some holders of actual grain, who let go. The supply in this State is very light, as it is also in Oregon and Washington, which causes the better informed to look for still better prices before the spring months pass. A large increased acreage is seeded to barley in this State.

Under lighter receipts, oats have gained in strength. The demand is expected to increase from now on, owing to so many more horses going into training, and also more private teams coming into service. It is claimed that an increased acreage has been seeded this year.

Corn is stronger. The demand appears to be improving, and as the supply is only fair, many look for better prices to obtain before long.

Rye and buckwheat are steady, with the former showing a firmer tone.

## Grain in San Francisco Warehouses.

G. A. Abel, Grain Inspector of the San Francisco Produce Exchange Call Board Association, reports stock of grain in the city warehouses on Feb. 28th as follows:

	Dec. 1.	Dec. 31.	Jan. 31.	Feb. 28.
Wheat, tons....	11,310	9,533	7,796	5,898
Barley.....	9,542	10,880	9,807	8,948
Oats.....	2,597	2,024	1,684	2,394
Corn.....	1,041	2,588	3,033	2,009

The quantity of wheat in the warehouses at Port Costa on the 28th was 103,000 tons and at Stockton 58,830 tons, making a total of 161,734 tons in all Call Board warehouses, a decrease of 24,663 tons during the month of February. A year ago there were 78,467 tons in the same warehouses, not including Stockton.

H. Kains Jackson in *London Farmer*, Feb. 9: Our neighbors, the French, find the look of their growing crops is unsatisfactory. The long frost upon the sugary-light soils of France has done mischief, and the Continent took more wheat direct from America and from India in the past week than did the United Kingdom. The position abroad is less assured than that of these islands, being more dependent than ourselves upon the future season. If the lack of rainfall in California—some 10 inches deficit up to date—is not soon compensated there cannot well be an average crop on the Pacific Coast. In New Zealand recent weather has reduced crop prospects go to 50 per cent according to latest intelligence. Russian prospects are very uncertain, but from India the news forecasts a favorable harvest.

The technical issue of the *London Miller*, Feb. 2, contains the following special note on the new Australian harvests:

The Australian wheat crop has been satisfactorily harvested, and is reckoned to be a good yield per acre in the most important districts. The New Zealand crop is rather below an average, and has not yet been secured; the deficiency, however, was expected to be greater two months ago. Our own advices lead us to expect a yield of—

	Area.	Yield (Bush).
New South Wales....	420,000	4,200,000
Victoria.....	1,200,000	14,400,000
South Australia....	1,850,000	20,350,000
Western Australia....	30,000	360,000
Queensland.....	16,000	128,000
Tasmania.....	45,000	360,000
New Zealand.....	340,000	6,680,000

Totals..... 3,901,000 46,478,000

The average home requirements of the Australasian colonies are now reckoned equal to 30,000,000 bushels, while demand for China and the islands between Australia and China equals 2,000,000 bushels, and the demand for Africa, Mauritius, and Madagascar 4,000,000 bushels; thus from the above harvest 10,478,000 bushels, or 1,309,750 qrs., would appear to be available for the European market. An estimate published a few days since put the new crop at 850,000 qrs. more than last year, when 5,310,000 qrs. were grown. This, of course, would give a total of 6,160,000 qrs., or 49,280,000 bushels, but we shall decline to attach much weight to these figures until it is clearly shown that allowance is made for New Zealand not being so good a crop as last year.

## Feedstuff.

Bran and middlings are a fraction lower, but ground and rolled barley are higher. Feedmeal is steady. Warm weather up to to-day caused a rapid growth of grass, which will give soon an abundance of green pasture.

Hay continues strong, with no prospects of lower prices until about new-crop season. The demand for feeding purposes is quite large, owing to the great amount of outdoor work. It now looks as if the crop this year will be unusually large.

## Live-stock.

Bullocks are steady. There have been free shipments by rail to Oregon. Mutton sheep are easier. A lower range in prices is looked for next month. Hogs suitable for the block are scarce. Grain fed are scarce, but grass fed are in good supply. Milch cows have a fair inquiry.

The market for dressed cattle is quoted as follows [to obtain the price on foot, take off from the price for stall-fed one-third to one-half, according to the nature of the feed and time fed; and for grass-fed take off the price from 40 to 60 per cent]:

HOGS—On foot, light grain fed, 4 1/2 @ 4 3/4 c @ lb;

dressed, 7 @ 8 1/2 c @ lb.; heavy, 4 1/2 @ 4 3/4 c @ lb.; dressed, 6 1/2 @ 7 c @ lb. Stock hogs, 3 1/2 @ 4 c @ lb. BEEF—Stall fed, 7 @ 7 1/2 c @ lb.; grass fed, extra, 6 1/2 @ 7 c @ lb.; first quality, 6 @ 7 c @ lb.; second quality 5 @ 6 c @ lb.; third quality, 4 @ 5 c @ lb.; bulls and thin cows, 2 @ 3 c @ lb.

VEAL—Small, 7 @ 8 1/2 c @ lb.; large, 5 @ 7 c.

MUTTON—Wethers, 8 @ 8 1/2 c @ lb.; ewes, 7 1/2 @ 8 c @ lb.; spring lamb, 15 @ 16 c @ lb.

## Fruits.

Apples are scarce and higher. The top for Yellow Newtowns is \$2 a box, and choice reds \$2.50 @ 2 75, but it is claimed by some dealers that higher prices are likely to obtain in the near future.

Limes are slightly lower under free imports from Mexican ports. Lemons are barely steady.

High water in the southern part of the State interrupted receipts of oranges, allowing the market to be well cleaned up, with a slight advance toward the close. It is difficult to forecast the future, or rather what prices will be when railway connections are again made and free shipments set this way. That the market will take large supplies is reasonably certain, but with heavy receipts it is likely prices will have to be shaded some.

There is considerable quiet buying of dried fruits. Several firms have cleaned up their holdings at the best figures obtainable. It looks as if slightly higher prices are likely to obtain toward the close of the present month. Stemmed grapes are about all bought up. Raisins are reported dull, but holders do not appear disposed to press the market, believing that a good distributive demand will set in in April or May, and as the stock in this State is not large, that which is held can be worked off to good advantage before the end of the summer months.

## Vegetables.

Garden truck is making rapid growth, but outside of a few of the earliest kinds dealers have to draw on Los Angeles for beans, tomatoes, cucumbers, peas and summer squash. Asparagus is coming in more freely; with continued free receipts, sales will be made soon by the box. Several consignments of tomatoes received the past two days were overripe from being delayed in transit.

The receipts of onions are fair; as the outlet is restricted, the market is easy. The opinion prevails among several dealers that prices will not set off much, if any, owing to the light supply on this coast.

Free receipts of potatoes and poor outlets broke the market. Warm weather causing fears of sprouting, which would in many cases cause rehandling, made some place their consignments at the best figures obtainable. As usual, when such conditions obtain, buyers bid low. There are large quantities of poor, defective potatoes, which are very hard to sell.

## Miscellaneous.

Poultry is higher. The city ordinance forbidding the selling of wild ducks and wild geese on and after March 1st has a good effect on the market for all kinds of poultry, confirming our position at the time of the passing of the ordinance. Broilers, fryers and young roosters are wanted.

The receipts of beans are light. Interrupted railway travel has caused a dull market. With the usual spring trade setting in, the market is expected to show more strength.

Hops are slow. It is said that brewers are using considerable bitter bark from Mexico and other substitutes.

In wool there is nothing doing, and not likely to be until the new clip season sets in.

Exports by sea the past week aggregate as follows: Wheat, cts, London, 6731; Cork, 141,431; Havre, 50,831; Antwerp, 58,264. Flour, bbls, Sligo, 23,700; London, 7000; Honolulu, 860; Central America, 300; Tahiti, 1426; China, 12,212; Japan, 2491. Brandy, gals, London, 8600. Wine gals, London, 2581; Mexico, 1501; Honolulu, 3704; Tahiti, 446; Victoria, 942. Raisins, bxs, 130. Potatoes, sks, Mexico, 200; Tahiti, 112. Bran, sks, Honolulu, 1350. Barley, cts, Honolulu, 200; Tah



Domestic Produce.

Table with 2 columns: Item and Price. Includes Beans and Peas, Nuts, Broom Corn, and various grades of produce.

Table with 2 columns: Item and Price. Includes Dairy Produce, Eggs, and various grades of produce.

Table with 2 columns: Item and Price. Includes Cheese, Butter, and various grades of produce.

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PACIFIC COAST WEATHER FOR THE WEEK.

(Furnished for publication in this paper by officer in charge of branch Signal office, Division of the Pacific.)

Table with 12 columns: Location (Olympia, Portland, Eureka, Red Bluff, Sacramento, S. Francisco, Fresno, Keeler, Los Angeles, San Diego) and 3 rows of weather data (Rain, Temp, Wind).

EXPLANATION. Cl. for clear; Cy, cloudy; Fr., fair; Cm., calm; - indicates too small to measure. Temperature wind and weather at 5 P. M. (Pacific Standard time) with amount of rainfall in the preceding 24 hours. T indicates trace of rainfall. P C, partly cloudy. Rn., rain.

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**AND WILL PAY \$250.00 FOR IT**

The average weight of this Tomato is nearly 2 lbs. each.

**WE WILL PAY \$250.00 IN CASH**

For the best name suggested for this New Tomato. Purchasers are entitled to send in a name for each and every packet they buy. The names can be sent in any time before October 1st, 1891, and will be considered by a disinterested committee of three, who shall award the prize. Full directions for entering the names for competition given on every packet of seed.

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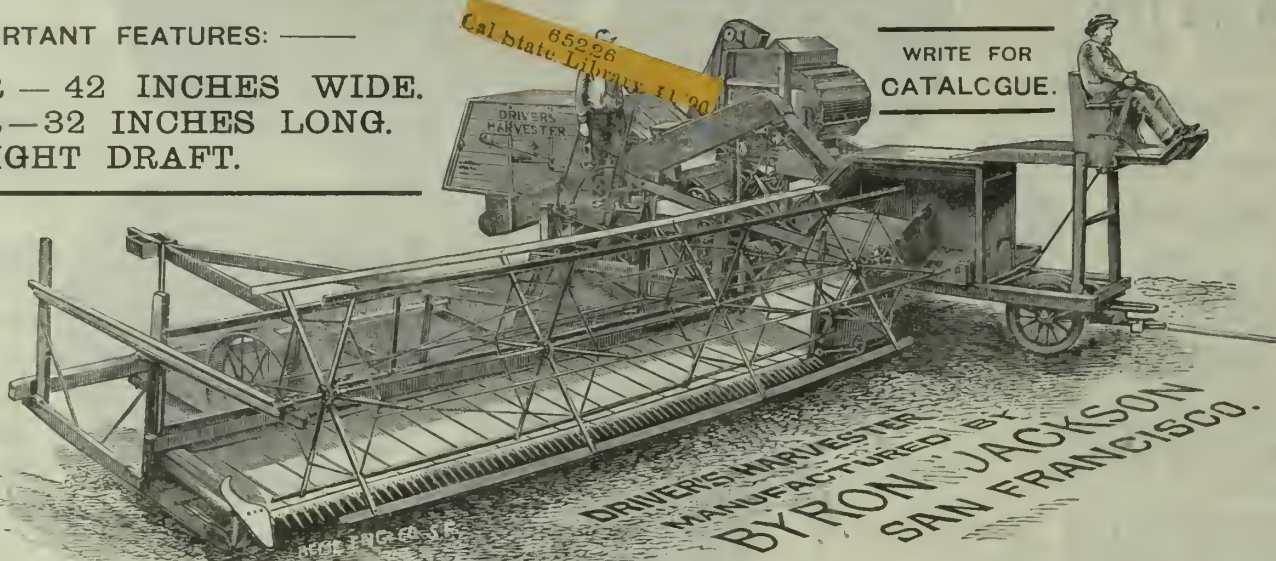
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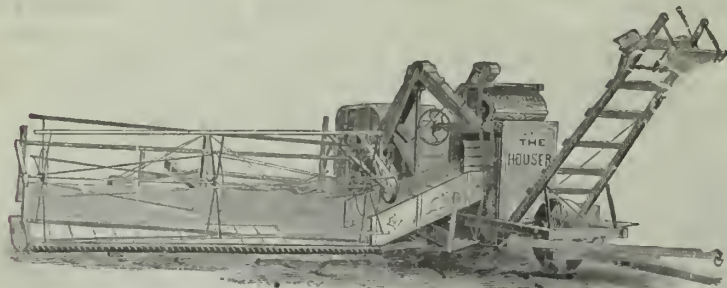
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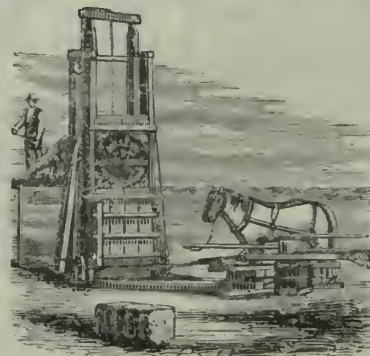
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Vol. XLI.—No. 11.

SAN FRANCISCO, SATURDAY, MARCH 14, 1891.

{ DEWEY & CO., Publishers,  
Office, 220 Market St.

### Romneya Coulteri.

[Written for the RURAL PRESS by C. R. ORCUTT.]

One of the most charming of California wild flowers is the large, perennial white-flowered poppy, *Romneya Coulteri*, which has been favorably known abroad for many years, and has in recent times been rediscovered, so to speak, by California.

The genus was named *Romneya*, in honor of the Rev. Dr. T. Romney Robinson, a noted astronomer of Armagh. It is a shrub, usually from 5 to 15 feet in height, half-woody at base and does not die down but needs to be pruned well back in the fall. It is one of the finest of California plants. In early spring vigorous shoots start from the dormant roots and grow from 6 to 10 feet high. The large hairy buds open at daylight; the crimped petals slowly unfolding from over the huge bunch of stamens (the bunch as large as a walnut) until they spread out from 6 to 9 inches. They last several days, the buds opening well in water.

The foliage is very effective, and makes with the flower a very beautiful and artistic study. There is a delightful harmony between the much-divided glaucous foliage and the waxy-white flowers, which makes it much admired as a decorative plant.

The *Romneya* occurs from Santa Barbara county, southward into San Bernardino and San Diego counties, and below the Mexican boundary nearly to San Quintin bay, Lower California. It is seen at its best in San Diego county and in Lower California, where it may be found growing along the borders of streams, in the richest and most fertile portions of our valleys, or on the dry mountain or hillsides and in sheltered canyons on the warmest, driest and most unapproachable slopes. It is mainly confined to the foothills and valleys near the coast. It is easily domesticated as far north as San Francisco, and with us is quite a hardy shrub, requiring only a sheltered position to protect the flowers.

A rich sandy loam soil is most suitable. The species may be increased by seeds, sown in spring, but only the most careful and painstaking are usually successful. The seeds do not germinate for four to eight months or longer. With care the roots may be readily transplanted. Cuttings may also be made to grow. Single plants do not seem to mature seed in cultivation, but when grouped, as in the wild state, the seed mature abundantly. The stems multiply rapidly from the roots, until a single plant will occupy a considerable area.

W. Goldring, writing from London (*Garden and Forest*, i. 291), says of the *Romneya*:

I have just seen this glorious flower in Kew gardens. With us it is one of the rarest and choicest border flowers we have. One need not be an enthusiast to admire its great satiny blossoms of snowy whiteness and adorned in the middle with a tuft of stamens like a golden tassel. It has the reputation of being a "miffy" plant—that is, it wants much attention and then often does not reward us by behaving well.

There is now a considerable home demand for this handsome shrub, and for California homes there is no plant more desirable for the lawn or garden. As a pot plant in the East and Europe, it is eminently a success. It blossomed when small profusely, and while the flowers are not nearly so large as they can be grown with us, yet it well repays all the labor and care bestowed upon it. No picture can do this



OUR GRANDEST WILD FLOWER—*Romneya Coulteri*.



ROMNEYA COULTERI—REDUCED FROM LONDON "GARDEN."

magnificent flower full justice. The waxy, delicate texture of the petals the pencil fails to reproduce as well as the airy grace of the plant itself. We wish we could place the reader before such a field of them as we have seen in the canyons of Lower California, where, climbing far up the mountain-sides, away from the reach of any but the most enthusiastic botanist, their numerous large white flowers show off, with startling beauty in the morning sunlight. It

seems a pity so many should thus waste their sweetness so far from appreciative eyes, but the bright-winged butterfly harbors no kindred thought as he flits from flower to flower.

In the designation of a State flower by our State Floral Society, the choice lay between two so-called "poppies"—the *Romneya Coulteri* and the *Eschscholtzia Californica*—the latter winning not upon beauty but upon its greater elements of popularity.

### On the Track of Bogus Butter.

We stated briefly last week that the revenue officials were on the trail of the dealers in oleomargarine and other abominations, the manufacture and sale of which are now regulated by United States revenue laws. Uncle Sam's efforts in pursuit of his legal income may thus disclose the traffic in these impure products and thus largely prevent it, for it is a business which thrives on this coast only under the cover of darkness and deception. We stated last week that deputy revenue collectors and agents had been specially designated for this work in different parts of the State to which the material is being shipped from Eastern factories. The *Chronicle* reporter who has been following up the subject in this city makes this statement:

The history of oleomargarine in this market is interesting. The Armour Packing Company began a year ago to send it here from Kansas. The firm in 1890 imported probably not less than 30,000 or 40,000 pounds. The enterprise was then given up and a season of honest butter followed. Last month two well-known wholesale firms in this State, Messrs. McCarthy & Harding of this city and Long, Whitney & Co. of Los Angeles, commenced importing it again. Since then many retail dealers have purchased quantities of oleomargarine from both these firms. In fact, during February no less than 16,000 pounds have reached this city, equivalent to 7500 rolls.

These facts were learned by consulting the records in the office of the Internal Revenue Collector. Acting Collector Youngberger stated that he had about 700 samples of alleged butter which he intended to forward for inspection to Commissioner Mason at Washington. In many cases the imitation of the genuine is so subtle that even the acute eye of the Government microscope cannot detect the difference.

It is further stated that the investigations of the revenue men show that not less than 100 retail grocers are selling bogus butter in place of the genuine. It is proposed to increase the number of deputies employed, and during the next 30 days to visit every grocery store in the city. The United States will make an effort to enforce its penalties upon all caught dealing in the stuff without meeting the requirements of the United States law. It would be perfectly feasible to give the offenders a second dose of discipline by proceeding against them under the statute of California, which is, in some respects, more grievous than the United States law. There is, however, no organization to proceed with such work unless the dealers in the legitimate product have one. Producers should, of course, bear due share in such work, but in this State it has proved exceedingly difficult to focus their widely scattered influence and interests. Depressing the value of the pure product by competition with a monthly introduction of 15,000 pounds of bogus products may, however, prove a rallying power even among the dairy producers.

A NEW CREAMERY.—The California Creamery Company has incorporated, to deal in cream, butter and cheese, with \$25,000 capital, all subscribed by the following incorporators and directors: J. H. Hegler, M. M. Johnson, Julius Kaupisch, F. M. Kaupisch and Chas. Mersfelder. The creamery is located in Mendocino county. Separators will be used. The company will buy the cream from 1500 to 2500 cows owned by various farmers within a radius of five to ten miles of the creamery. It will be in operation by April 1st.



## CORRESPONDENCE.

Correspondents are alone responsible for their opinions.

## San Diego Notes.

EDITORS PRESS:—This end of the State, and especially this immediate section, is very much awake and very jubilant over our bountiful rains. Large areas will be planted to citrus fruits, guavas, apriots, etc. Another event of greater importance to fruit-growers than the splendid rains is the settlement of the long-contested, vexatious Neale case, with which the public generally is familiar. Last Thursday night the tunnel constructed to draw the water from Mr. Neale's land was closed. Since then (four days) not less than 20 feet of water has been added to the reservoir. Before the rains are over the reservoir will be filled and six billions of gallons of water for summer irrigation means large additional acreage of fruit orchards.

No further anxiety about the water supply in this locality. City people are almost as glad as those who till the soil, for they well know that the soil is the fountain-head of all prosperity.

March will be an interesting month here. On the 9th instant the citrus fair opens at Los Angeles, and San Diego county people are awake to their interests in the matter and have a wide-awake committee at work arranging for a fine display. A beautiful local representation is to be made with fruit, and artists are to go and see that everything is properly done. Hundreds from this county will visit the exhibition.

On the 17th the State Educational Convention will meet in San Diego, an event that is looked forward to with pleasure by teachers and all interested in schools. Our Northern educators will receive a hearty welcome, and if they are not well taken care of our people's reclamation for hospitality ought to suffer. While our schools are excellent, we expect to learn many things from our visitors to increase their efficiency.

Tourists abound in this region. No season has ever brought so many. The hotels are full—some of them overflowing. Hotel del Coronado has 700 or 800 guests. All are extravagant in their praises of that beautiful seaside resort and the careful attention bestowed upon them for their comfort and pleasure. An excursion on land or water is arranged for every day in the week, and a hall is given every Saturday evening in their elegant ballroom.

The National City & Otay Railroad Company have two regular 60-mile excursions each week, of which large numbers of tourists avail themselves. The route is to the Mexican line and Sweetwater dam, and the trips are greatly enjoyed.

Like the rest of the world, this county has an unusual share of sickness this winter, mostly a light form of la grippe. Your contributor, Ira S. Thomson of this city, died on the 15th inst. He was by nature a man of indomitable energy, integrity of character and intellectual vigor. Several years ago, while editor and proprietor of the Vineland, N. J., *Daily and Weekly Advertiser*, he was stricken with paralysis, from which he never recovered. He came to this coast with his family for the benefit of his health, which gradually failed, although his intellectual powers seemed unimpaired. Much of his time was spent in writing for papers and magazines. He was particularly interested in educational matters and was a regular contributor to educational literature. In his early life—he was 70 at the time of his death—he introduced the study of physiology into the schools of New Jersey, against great opposition, which shows that the world not only moves, but moves fast. Mr. T. was an appreciative reader of the *RURAL PRESS*.

National City.

F. M. K.

## The Weather and the Roads.

EDITORS PRESS:—Another heavy rain has just ended and left some snow on the near and higher hills. It came too close after the other one to do any good; better spread it out a little and save some for March, April and May. Who said there was too much fog all winter and there would be no rain? Well, there has been over four inches for the last storm and over ten for the other storm, and somewhat cold, but that will be good to keep the fruit blossoms back and be more propitious for a fruit crop. Feed has been good since early winter and stock generally looks well.

I saw a piece in the last *RURAL* about roads. I think that there is some improvement needed in our road laws, for it is hard to get a good road under our present laws. In the first place, there should be some one who is well qualified for the business to look after all the public roads and to see to it that every roadmaster does his duty. I believe it is the duty of the supervisor to do so, but he or they do not always do it; hence I think there should be a road commissioner appointed or elected for each county, whose imperative duty under bonds would be to go over and see that every road and part of a road is kept in proper order, and have all the turnouts and ditches and causeways open and ready for the first rains in the fall, and then kept so all winter. If this were done, there would not be nearly so much re-

pairing to do every spring, and there would soon be money accumulated for new roads, etc. But no; up here they let the roads wash away so much that it takes all the road money every spring to repair, where it might have been half or more saved just as well as not. "A stitch in time," as the old woman says.

Now about the "direct tax." I believe that if every man under 60 years of age should have to work out his tax, it would go a great deal further toward keeping our roads in good shape than they do by the direct tax after the per cent is taken out for collecting, etc. Again, not all the men are always able to pay in cash, but still there is money needed for repairs all along in summer and more in fall and winter. Some would rather pay cash than work. Let them do so, and *vice versa*. More might be said, but I fear that I am commanding too much space for one article, so I will close and hope to hear from some one that has better ideas and is better qualified to write on such an important subject.

WM. H. MULLEN

Big Bend Butte Co.

## THE FIELD.

## Peanut Growing.

The following essay was prepared by R. M. Hargrave for the Santa Ana Standard, and is so thorough and so concise that we reproduce it for our readers' benefit:

Having been many times requested to write an article on the cultivation of peanuts, and received many letters of inquiry, I have been thus induced to do so, and only give what I have learned by actual experience and not any hearing or guesswork about it.

Planting.—The best time to plant peanuts is about the middle of May, say 10th to 15th, in rows about 3 to 4 feet apart, and 16 to 20 inches the other way, and not over too deep, 3 or 4 inches, and the best results are obtained by irrigating the ground before planting—it kills all the insects and gophers that destroy your seed, and you get a better stand and a better yield. The reason why peanuts should be planted the middle of May is that they ripen evenly and are of a more uniform size, and not so many little nuts. Very early peanuts ripen uneven, and the first nuts that set on get so ripe they turn to a pink color, and if the land is a little sandy the stems get soft, lose their strength, and will not lift the nuts from the ground, and the first nuts are lost, as in many last year's crops that I could mention, and many small nuts with black ends when they are cured.

Seed.—Like all other crops, good seed is required in order to get a good stand. Many made a mistake last year by planting poor seed. It takes about 30 pounds of the California or White Virginia, and 50 pounds of the Tennessee Reds to plant an acre. Tennessee peanuts can be planted much closer in the rows. The California peanut is the best to plant, as it yields three or four times as much as the Tennessee Reds do, and has more ready sale.

The Quality of Land.—Peanuts require a rich, sandy soil loam, that is known as upland. Damp land gives the nuts a straw color, and they are not as good a quality as those raised on higher land. They require no irrigation, except on very sandy land, where some have found it profitable, but as a usual thing when irrigated the ground is liable to get hard, making the nuts crooked, ill-shaped, and many times coloring them.

Cultivation.—Peanuts should be cultivated about the same as corn, not allowing any weeds to grow in them, keeping the ground loose and mellow, and when the spikes begin to form they should not be disturbed. If they are, it causes the nuts to blight or not fill out. The blooms do not require to be covered. Many think peanuts cannot be raised without covering, but the less they are disturbed after blooming the better.

Harvesting.—Peanuts should be harvested when ripe, and not be allowed to stand too long in hopes that the last ones set on will fill out and ripen, as you lose more than you gain. The little ones spoil the sale of the crop, and many are left in the ground that get over-ripe. Peanuts should be cut or plowed out and thrown into windrows, nuts down, and let lay a week or ten days and then sacked, as the best nuts are cured in that way and they do not mold so badly, and cure a better color. They must not be allowed to get wet, and then when it comes to packing, you need not get in a rush, and they can be picked in better shape and saves hiring so much help. The tops are good feed if stored away in a shed for winter use. All kinds of stock like them, and small nuts can be left on the vines. They make the best chicken feed.

Market.—The market was abused this last season, many shipping before the peanuts were cured or fit for market, and many molded and turned black before they reached San Francisco. Others shipped stems, leaves, dirt and all sizes, saying: "I can get as much for poor nuts as good ones if I sort and clean them." What was the result? The market was ruined, and peanuts are dull sale in San Francisco today. Some are shipping in Eastern peanuts and others are sending into the country to buy peanuts that are well cleaned, paying here the best San Francisco quotations. A good quality

of nuts is worth as much at home to-day as they are in San Francisco, because the market is glutted with dirty, black, moldy nuts, and the dealers have found it out. Those who plant peanuts this season with the expectation of rushing them in early for a high price will be badly left unless they are well cured before shipping, as the dealers have got their eyes open this season.

Yield.—An average yield is about 25 to 30 sacks to the acre, 40 pounds to a sack, but many have raised 50 sacks, with extra care and good land well adapted to peanuts. Five cents per pound is a fair price for good nuts, making a revenue of from \$40 to \$100 per acre.

## Directions for Making Sorghum Molasses.

The sorghum canes, properly stripped of leaves and with the seed tops removed, are passed through a mill adjusted to extract as large a per cent as possible of the juice. A first-class, three-roller horse-mill, properly adjusted, will extract from 60 to 65 pounds of juice from each 100 pounds of clean cane. In case the molasses shows a tendency to granulate, the cane should be cut and allowed to lie in the field three or four days before being worked. If the molasses does not show any tendency to granulate, it is best to have the cane worked as soon as possible after harvesting.

As soon as the juice is expressed, it should be treated with cream of lime, which has been thoroughly strained so as to contain no large lumps of undissolved lime. In a tank of convenient size, two-thirds filled with juice, the cream of lime should be added, little by little, with stirring so as to incorporate it thoroughly with the juice. As the point of neutrality is reached, the juice will show a large amount of flocculent matter, and will slightly change in color, passing from green to amber color. Care must be taken not to add an excess of the cream of lime, the result of which would be a darkening of the molasses. The proper point may be soon learned by experience; it can also be determined directly by litmus test paper. The blue litmus paper should be used. When this blue paper is placed in the natural juice, it will turn to light red. As the point of neutrality is reached, the change of color in the litmus paper becomes less and less pronounced, and when it is distinctly purple it shows that the proper amount of lime has been added. If too much lime be added the paper will not change in color at all, or he made more distinctly blue. Litmus paper can be obtained from any well-equipped drug-store.

A very excellent article of molasses is made by adding to the juice, treated as above, some bisulphite of lime. This bisulphite of lime is made by passing the fumes of burning sulphur into cream of lime until it is saturated. The addition of the bisulphite of lime makes the juice again acid, but tends to produce a molasses of a much lighter color than can be made without it. Excellent molasses, however, of a somewhat darker color can be made without the use of the bisulphite of lime. A good article of molasses of light color can also be made without adding lime, and molasses made in this way is exceptionally good for baking purposes.

The juice, after treatment with the lime or with the lime and bisulphite of lime, or with the bisulphite of lime alone, should be placed at once in a tank and rapidly brought to the boiling-point. It should, however, not be allowed to boil; but when the foam, which is formed over the top, begins to show signs of breaking, the heat should be withdrawn and the blanket of foam carefully removed. The heat may then be again applied until all the green acums have been entirely separated. The purified juice should now be reduced, as rapidly as possible, to the consistency of molasses. This is best done in some form of continuous evaporator based on the old-fashioned Cook evaporator, in which the purified juice constantly runs in at one end of the evaporator, passes back and forth across it, and the finished molasses runs out at the other end. The more quickly this evaporation can be accomplished the better for the molasses.

When the molasses runs from the evaporator, it should be cooled as quickly as possible and should never be placed in barrels until it has almost reached the ordinary temperature of the air.

These directions are only of a general nature, and it requires a large experience to be able to produce always a first-class article of molasses.—U. S. Dept. Agriculture.

## Hops in Washington.

E. Meeker & Co., the Puyallup hop dealers, issued, Feb. 19, the following circular: This firm has shipped, during the season of 1890, six solid trainloads of hops to London, which, including other shipments, comprised the equivalent in quantity of one-fifth of the Washington crop for the crop year under review.

From the statistics at hand we estimate that \$2,500,000 has been received for the hop crop of Washington grown in 1890, and nearly \$1,500,000 for the Oregon crop of the same year.

The list obtained from official records shows the shipments of Washington hops, of the crop

of 1890, from September 1 to December 31, 1890, aggregated 42,746 hales.

No statistics are at hand showing the actual shipments from Oregon, but it is fair to judge the crop in that State has likewise been underestimated and that the total yield has been fully 25,000 hales instead of 20,000, as heretofore estimated by us in our last circular, making a total for the two States of 75,000 hales. Almost all of the Oregon crop has gone forward and into the hands of the consumers.

The shipments since December 31, 1890, including the stock yet on hand, will foot up fully 5000 hales, Washington's—a conservative estimate—and may reach the unexpected grand total for the crop year of 1890 of 50,000 hales.

It is with no small amount of local pride we are able to chronicle the fact of Puyallup standing at the head of the list in its hop business and shipments as heretofore, with quite an advance over any former year.

Contracts.—The disastrous results to both growers and dealers who scrupulously fulfilled all contracts, coupled with a threatened loss of a portion of the crop by vermin, thus rendering the quality uncertain for future crops, has put a stop to the practice of contracting for future deliveries, and it is to be hoped never to be revived.

Had the growers not contracted any of the crop of 1890 until in the bale, and then met the market, there would have been more than a million dollars more money in circulation in the two States of Washington and Oregon than now, and a "world" of litigation avoided that now crowds our court dockets. Hereafter this firm will make no contracts for hops until the same have matured and are ready for delivery.

Heavy Baling Condemned.—Notice has been formally served upon this firm that hereafter no hales will be passed the scales that weigh over 210 pounds, so growers will please take notice that no hales weighing more than this will be received by us hereafter, as we do not wish to purchase that which we cannot sell.

There is a good reason for this rigid "iron-clad rule" in that hard-pressed bales never make good summer-use hops, and this desirable quality of the North Pacific growths of Oregon and Washington is that which has given us such prestige on the London market as to enable us to sell freely on that market. An average of 170 pounds is better than 180; in fact, the lighter pressed hops are the better, as they retain their "age" and usefulness to the consumer longer.

Stocks.—Messrs. Rothbarth & Sons, New York, under date of February 9, 1891, estimate the stock of hops on hand in the United States at 69,000 hales, all of which will practically be needed to supply the wants of brewers not already provided for, assuming there will be no further import of export trade.

This leaves the problem of the "world's supply" with German and French factors, the ways of which are past finding out. Hence the future of the market is as usual shrouded in mystery and beyond the knowledge of the most wise.

Markets.—Contrary to all expectation based upon the known shortage in the world's supply, the market has not fully recovered from the great sag of November, caused by the stringency of the money market, at the beginning of which prices were firmly quoted at from 200 to 210 shillings per hundredweight. Now the same qualities will fetch no more than from 165 to 175 shillings per hundredweight, a difference of fully 8 cents per pound.

## Sugar-Beet Growing.

A bulletin will shortly be issued by the U. S. Department of Agriculture of special interest to beet-growers. It will present in a condensed form the data in possession of the Department concerning which the most frequent inquiries are made by persons desiring to grow sugar beets. It will review briefly the climatic conditions favorable to the growth of the sugar beet, the area in the United States favorable to this crop, the varieties, soil, fertilizers, rotation, preparation of the land, planting, and all the details of culture up to and including the harvesting and delivery of the sugar beets at the factory. Estimates are given of the cost of growing sugar beets in various parts of this country and of other countries. The production of seed, to the scientific methods of which pursued in foreign countries is chiefly due the extraordinary increase in the sugar content of the beet which now makes it so profitable a crop, is given a special chapter.

The bulletin contains also some suggestions and information in regard to the manufacture of sugar of a nature to be of interest to all growers of this crop and some statistical information showing the comparative development of the cane and beet sugar industries, together with the consumption of sugar per head in the principal countries during the year 1889, and a special table showing the consumption in the United States. There are several illustrations presenting the various implements best adapted to the culture of the sugar beet. The bulletin will be very brief, thoroughly practical in its character, and will be issued as *Farmers' Bulletin No. 3*, of the United States Department of Agriculture. Applications should be made to the Secretary of Agriculture or to the Chemist of the U. S. Department of Agriculture, Washington, D. C.



# FORESTRY.

## Forests and Floods.

Ten years ago I wrote a pamphlet setting forth the fact that considerable areas of brush and timber in the foothills and mountains were being burned off every year and the brush on some small portions of such burned districts was being dug out by the roots. The result of undue forest or brush destruction was shown to have been in other countries an increased flood flow and torrent action on the one hand, and on the other a diminished supply of permanent perennial water in either wells, springs or rivers. In a mountainous, and especially in a dry mountainous country, these results were shown to be prompter and greater than elsewhere.

The warning was then given that unless some check was put upon the denudation by fire of our watersheds, very serious consequences would be likely to ensue. Ten years have passed and ten fires and waste have gone on. Is it not now possible from our experience to say that in proportion as a mountain watershed is denuded so much the greater will be the flood flow for every inch of rainfall?

As the watersheds are denuded, the water flowing from them carries more and more sand, stones and soil. This detritus is added to the volume of the water. From my own measurement I believe that one-third of the volume of our torrents in floods is often composed of detritus. Of course this adds greatly to their flood power, not only as to volume but as to erosive or cutting capacity. This feature of our torrents owes its great recent increase to mountain fires and the consequent increased detritus delivered by the mesa and mountain streams. Flood water thus charged with sand, stones and boulders has an erosive power similar to air charged with sand and used as a sand blast. It is for this reason that we see barrancos, gullies and washouts where we formerly had none. No farm in a bottom land near any stream is now safe. This is true not only from the increased cutting power of the streams, but also because the capacity of water to carry detritus depends on the gradient of the water flow. After fires or other denudation the streams usually come out of the steep mountain grades charged to their full carrying capacity with detritus. As soon as the lower grades are reached some of the load must be dropped. Such deposits fill up the stream bed and there must be a continuous tendency in such streams to break into new and unexpected courses and to do great ruin.

Our remedy is a forest policy such as necessity has forced upon all civilized countries but ours. Ripe timber should indeed be cut, the forests should indeed supply us with firewood, but the forest can and does in other countries provide man's wants without any necessity of forest destruction. As for the fires that every year heat the hot autumn, superdry the air already overdry and mar and waste our mountains, they are inexorable on any ground. They are sometimes caused by negligence, but the great majority are purposely set. One hundred and fourteen fires started in separate and distinct places in the mountains and foothills of the Santa Monica range last year between the Rodeo ranch and the Malibu. Some of these burned only a little way, others extended over miles of territory. One of them nearly burned up the pavilion at the forestry station, and did burn large quantities of the trees planted on the forestry ground. Fires are the forerunners of floods. Every year our arroyos and torrents widen their beds; every year some stream changes its course; every year the damage by flood of a given rainfall increases. And this is only the commencement. Many countries have been ruined by forest denudation unchecked, and civilized countries have come to an appreciation of the facts, and have after an expensive schooling taken their precautions in a national forest policy. To indicate what the cost of these forest lessons is, we may cite the valley of the river Durance in France. This stream rises in a mountainous country originally forested. The trees were cut and rafted out, sheep were introduced, the brush burned, and the mountains quite denuded. The result was the cutting away by floods or the covering up by torrent detritus of 200,000 acres of fine lands in this single valley.

We must all join together and stop this wasteful and dangerous destruction of the coverings of our mountains, or our bill of damages will far exceed that of the Durance.

Large numbers of trees have been planted in Southern California, but these are all in the valleys, and while helping the climate cannot control the flood-waters coming from the denuded mountains. These must be controlled in the mountains and foothills.

Levee districts are an expensive palliative for the results of forest fires. There never can be a remedy. The difficulty of building an effective levee can be seen on the Los Angeles river, where great expense has been gone to by the railroad companies. Their levees are costly, unreliable, and made of material certain to rot out under ground. Besides the great first expense of any effective levee system to care for mountain streams, there is a still greater expense in the necessity of raising the levee banks from time to time. This necessity grows out of the inability of torrents to carry on the

valley grades what they pick up in the mountain grades. Consequently the torrent beds rise above the general level and no levee can make them scour. So it may be observed that the outlet from the mountains of so many of our torrents is on a talus or deposit of sand, stones, etc., higher than the surrounding country, and this must become more and more the case as mountain denudation increases.

I have seen levees to hold torrents on the Italian side of the Alp valleys, 78 feet high and then only 18 feet above the bottom of the torrent bed. This Telfer torrent is consequently at its bottom 60 feet above the surrounding country. I have stood on this levee and looked down on the top of four-story houses in the city of Boetzen.

I suppose that it is impossible for the people to realize what a mountain torrent in a country like ours will do. I suppose that it is impossible for them to realize that the true and only reliable remedy is in the mountains and not in the plains, in the brush and forests, and not in levees. Presuming that we can only hope for palliation at present, it may be well to suggest that one of the best flood and torrent breaks in this country, where water is permanently near the surface, as in all the river country below Los Angeles, is the willow hedge. The willow brush should be cut four to five feet long, and set about 2½ to three feet below the surface of the stream, and close to and under the bank to be protected. It must then be wired together thoroughly. In case the exposure is great to strong currents, a scantling or good post should be driven in deep, every ten feet, to anchor the wires. The next season this will form a living levee that no flood will move. No insects injurious to fruit trees harbor in willows. I speak from experience, having in a mountain district as road overseer taken this measure of protection, and never lost a culvert, grade, canyon road, or bridge.—Abbot Kinney, in Los Angeles Express.

## THE DAIRY.

### Building and Filling the Silo.

EDITORS PRESS:—I have read with very great interest Capt. Geer's experience with the silo as stated in *Eureka Standard* and copied in PRESS Feb. 21st, and my experience with silos does agree with the captain's so far as the building for the purpose is concerned. We used to go to quite a large outlay in the construction of silos some years ago, using brick or stone and laying it up with cement and finally plastering the same smoothly inside, believing that it was necessary to insure success in the preservation of green crops for winter food. We have learned, however, that any tight building built after the plan spoken of by Mr. Geer will preserve the food equally well, so long as it is made sufficiently strong to stand the pressure in settling, which is very great, as one can readily understand when a ton of it occupies but from 50 to 55 cubic feet.

Among the large milk dairies which go to supply the city of New York with milk, silos have become a very important factor, indeed almost an indispensable necessity to the successful and profitable production of milk in winter; in fact some of the most successful milk-producers stall their cows the year round and feed largely from siloed feed, together with occasional rations of wheat bran, ground barley, cotton-seed meal, by way of variation.

While a number of feeds are successfully preserved in the silo and found useful as a silo feed, there seems none equal to corn. Any good, strong-growing Dent corn will produce on good soil in New York State 20 tons of silage to the acre; 60 pounds per day with the ground feeds is on the average as much as a cow in full milk will consume.

The secret of making good ensilage is to put good material into the silo, cut fine and well tramped. Corn should be planted and cultivated so as to bring the most good sound grain, and put into the silo when this grain is beginning to glaze. Captain Geer's silo is too large for an average dairy say of 25 to 50 cows. I would build a silo of a size so that when feeding the whole surface could be taken down some four inches or more each day, or if at each feeding, all the better, as where the surface is exposed for any length of time, mold accumulates. Large silos are often cut down through, like hay, which is a bad plan, as the surface so exposed spoils to the depth of several inches, and though the cattle may consume more or less of this spoiled food, thus doing in a measure away with wasteage, it tends to make the milk taste of the spoiled food. Build silos for 50 to 100 head not more than 15 feet square and as high as you like; the higher the greater the pressure, and the more can be gotten in, and the smaller the surface exposed in feeding. Besides, in filling run the two, three or more pits up at a time, cutting say a day in each, allowing it to settle while cutting in the other. By this means again more can be placed in each silo and the chances of spoiling are lessened, as the silage is packed closer.

It seems to me there is no country in the world where dairying can be made to pay better than in Southern California, especially so where there is moist land that will grow corn. Milk products are reasonably high, and the residue from butter-making can be turned into

hogs, with green feed, as alfalfa, chopped fine for food, making cheaper pork than is possible in colder climates, and oows can be kept comfortable more cheaply here than elsewhere, and all grain foods average cheaper here than in the East, and butter on the average commands fully as high a figure. I. C. Wood, Palm Rest, Ontario, San Bernardino Co.

[Our dairy readers will welcome this communication and more like it.—EDS. PRESS.]

### Beets for Stock.

EDITORS PRESS:—In answer to numerous inquiries I will say: Stock beets should not be planted too early for two or three reasons—

First—In sections where there are sharp frosts, they are liable to be rendered wholly dormant if planted before March, in which case the crop is ruined; for when the young plants start again after their dormant state, they will run to seed, as this is the nature of all vegetables. The new start counts for the second season's growth, no matter how small the plant. The seedsmen should not be blamed in such a case; the seed might have been all right; the fault was in too early planting.

Second—Beets should not be planted before the heavy rains are over. Of course no one can tell when this period has come; the only way is to use your best judgment. If a heavy rain falls upon the soft land after it has been well pulverized and the crop has been planted, the soil is very likely to run together and harden and crack after a few days. In this case, the crop will be greatly injured if not spoiled. The soil should be kept in a loose condition around the roots to prevent being bound, stunted and dried out.

The conclusion is that beets cannot generally be safely planted before March or even April; of course it will depend upon the soil and the character of the season. If the soil is sandy and spring rains are light, the crop might do best if planted in January or February.

But in the coast counties north of the bay in four years out of five the best crop will be secured by planting from the first to the middle of April.

With the present prospect for light rains, some will be tempted to plant soon. But I would advise that the land be well plowed up and left until March at least. About six pounds to the acre of Long Red Mangle seed is considered enough. W. C. DAMON.

Napa Feb 24, 1891

## THE APIARY.

### Bee Buzzings.

EDITORS PRESS:—The steady downpour of rain will make some of our valley apiarists want to "flee as a bird to the mountains" to escape the flood. As the late rains are usually credited with producing the greatest yield of nectar, the bee-men can look out upon the storm with the assurance of a good season. Few, if any, hives are short of supplies. All that will be wanted this spring is an abundance of primed sections, with a few last-season sections, filled with comb, to act as starters. I was looking at a lot of hives the past week that were all tilted back; as the rain fell it poured in at the mouth of the hive, and as the bees had gazed the bottom board on tight, the hive held water like a bottle. The only way that it could escape was by the hive filling up to the level of the entrance. What a wet, moldy mess those bees will have of it, and how their owner will delude that "bees don't pay any more for some reason," but he is not alone. I have my stands one inch higher at the back than in front. This gives straight combs (if the hives are perfectly level across), drains the hive and enables the bees to stand their ground better when attacked by robbers; but in our long, damp seasons the hives get moist, then damp, and finally moldy. Some avoid this by raising the lids on fine days and thus giving the hives a needed airing; that does very well, but it breaks up the fastening each time, and if the fine day is followed by a cold night, or a windy day, it leaves the bees subject to a cold draught that proves the remedy worse than the disease. In summer-time, when the extremes of heat drive the bees out and cause them, in self-protection, to cluster in idleness on the outside of the hive, ventilation is again necessary, and the hive is usually raised from the bottom board to allow more air, and the larger opening taken advantage of by the robber bees; then the hive has to be suddenly closed down to an entrance only large enough for the entrance of one bee at a time, the comb melts down and the remedy again is worse than the disease. To avoid this, I shaded a hive completely, but still they hung out in idleness; then I cleared out all the full combs in the supers, but the bees bunched on the outside in idleness. Finally I bored two-inch holes in the rear of the hive, about an inch below the rabbet that the frames set on, and two inches from each side. These I covered with wire cloth, and the next day my idle bees were all indoors at work. When the weather changed it took but a minute's time to close the slides over the ventilators, and when a long wet spell, like the present, came, I could open the slides on the first warm clear day,

closing at night, and my bees soon had their hive sweet and dry. Beekeepers well know that a damp hive is more fatal to bees than a damp house to the bee-keeper, but few guard against it. However, while on this question of ventilation, I notice that some bee-keeper advises "a ventilated top box to be placed on top of the hives in moving," as "the bees will all leave the combs and cluster in this top box." Now a heeman doesn't want any more traps than is absolutely necessary, and I believe that if the screen that he puts over the hive has the end pieces one inch thick, the sides a half-inch, and the screen side placed next to the bees, the half-inch of space between the screen and the cover with the sides of the screen frame thus open will afford all the ventilation needed if the bees are moved, as they should be, after night. If an extra top box is needed, a super could be put on and the screen cloth placed over it, and if the roads are very rough, a few lengths of rope fastened length and crossways to the bottom of the screen and allowed to hang down midway in the super would keep the bees from jarring off, no matter how rough the road. These rainy days are the golden days for the apiarian; in them he nails up and paints his hives, primes his sections and prepares for the coming harvest of honey which at this time promises to be an unusual yield. E. H. SCHAEFFLE.

Mountain Bloom Apiary Murphys, Cal.

### Items of Interest in Modern Bee-Culture.

EDITORS PRESS:—The five-banded Italians are among the latest additions to our novelties in bee-keeping. These bees are a sport from the imported Italian bee, but like the white varieties of poultry, they have (by careful breeding) become a permanent and distinct strain. They are remarkably gentle, excellent honey gatherers, and are the most beautiful bees in the world; they are also known by the name of Golden Italians. I have lately received a report from the originator of this strain stating that he had a colony of the ordinary Italians the past season (standing alongside of several colonies of the five-banded Italian) which did not gather any surplus honey whatever, but had to be fed, while the five-banded colonies gave a surplus of 20 pounds each and this in the worst season in 15 years in the State of Michigan. The same writer also states that a bee-keeper near him owning 100 colonies of the ordinary Italians got only 20 pounds of surplus honey from his 100 colonies, while the owner of the five-banded Italians netted over 400 pounds of extracted honey from only 20 colonies. I have also received reports from several other owners of this strain to the same effect.

I intend to introduce these bees into California during the coming season. We want the best bees in the world, and although their beauty is only a secondary consideration, we shall have no objection to the most beautiful bees in existence so long as we have gentleness and superior honey-gathering qualities combined.

Other proofs of the good qualities of this strain of bees may be found in the *California Bee-Keeper*. "Progress with the times" is my motto.

The First Honey of 1891.

Bees have been gathering pollen for several weeks. During the last three or four weeks they have been bringing in immense loads, chiefly from the Acacia, and the cells are now loaded with new honey, or rather nectar, for there is none of it sealed as yet. Brood-raising is going on at a rapid rate. Since the rain came, the prospects of a good season are more encouraging.

Beeswax Getting Scarce.

The price of beeswax in the Eastern States is from 26 cents to 30 cents a pound, while in Ontario, Canada, it cannot be bought for less than 32 cents a pound. The chief cause of this rise in the price of this article is, no doubt, the increase in the manufacture of comb-foundations. A short time ago I received a communication from Messrs. Chas. Dadant & Son, Hamilton, Illinois, stating that they have made and sold in 1890, over 40 tons of comb-foundations. It is possible that we may have beeswax selling at 50 cents a pound this year, if the scarcity continues. WM. STYAN.

San Mateo.

DAMAGED EGGS.—It is an interesting fact that local commission merchants are using cold-storage warehouses because about \$12,000 worth of eggs were stored for them during March, April, May and June last year, but owing to carelessness, the apartments where the eggs were stored became filled with the odor of ammonia and other chemicals, permeating the eggs and destroying their market value. The sums sued for represent the difference between the prices which the eggs in good condition would have brought and the actual sums for which they were sold. The "fresh egg" surely has many ills besetting it, and, according to the allegations of the merchants, their eggs might as well or better have remained under the barn or alongside the strawstack as to have been treated as they were.

PRESSED PAPER PULP has been suggested for railway ties. The various uses to which this material has been put since the introduction of the wood-pulp process gives rise to the suggestion. There seems to be no good reason why it could not be put to this use.



## PATRONS OF HUSBANDRY.

In our Rural Press Official Grange Edition, issued every week, will be found additional matter from this and other jurisdictions, of interest and importance to Patrons. Any subscriber who wishes can change free to that edition.

## The Master's Desk.

R. W. DAVIS, W. M. S. G. OF CALIFORNIA.

Bro. X. X. Charters of Virginia, the zealous, efficient and painstaking Master of the State Grange of that glorious old State which is known as the "Mother of Presidents," has thanks for a bound copy of the Journal of the late proceedings. Bro. Geo. A. Bowen, the talented Master of the Nutmeg State Grange, has also "obligated" us for a copy of the Journal of Connecticut State Grange proceedings. Thanks, brothers. Your addresses have each been read and the Journals have been more than satisfactory in every particular.

Ohio intends to initiate 25,000 farmers into the Grange this year. How is that for progress? But you know Ohio is to have the next session of the National Grange. Can't California do about one-half as well as Ohio? Try, fellow-Patrons, try very faithfully!

Who is going to organize the greatest number of Granges in California this year? Now is the time to make a start. Send for blanks and for instruction, or get up a charter list and call for a Deputy. Who leads the van? Organize one Grange, anyhow.

There are indications that all the officers of one of the subordinate Granges will attend the annual session of the State Grange at Haywards, and while there will confer, in full and complete form, the four degrees. Such an object-lesson will be worth very much to all Masters.

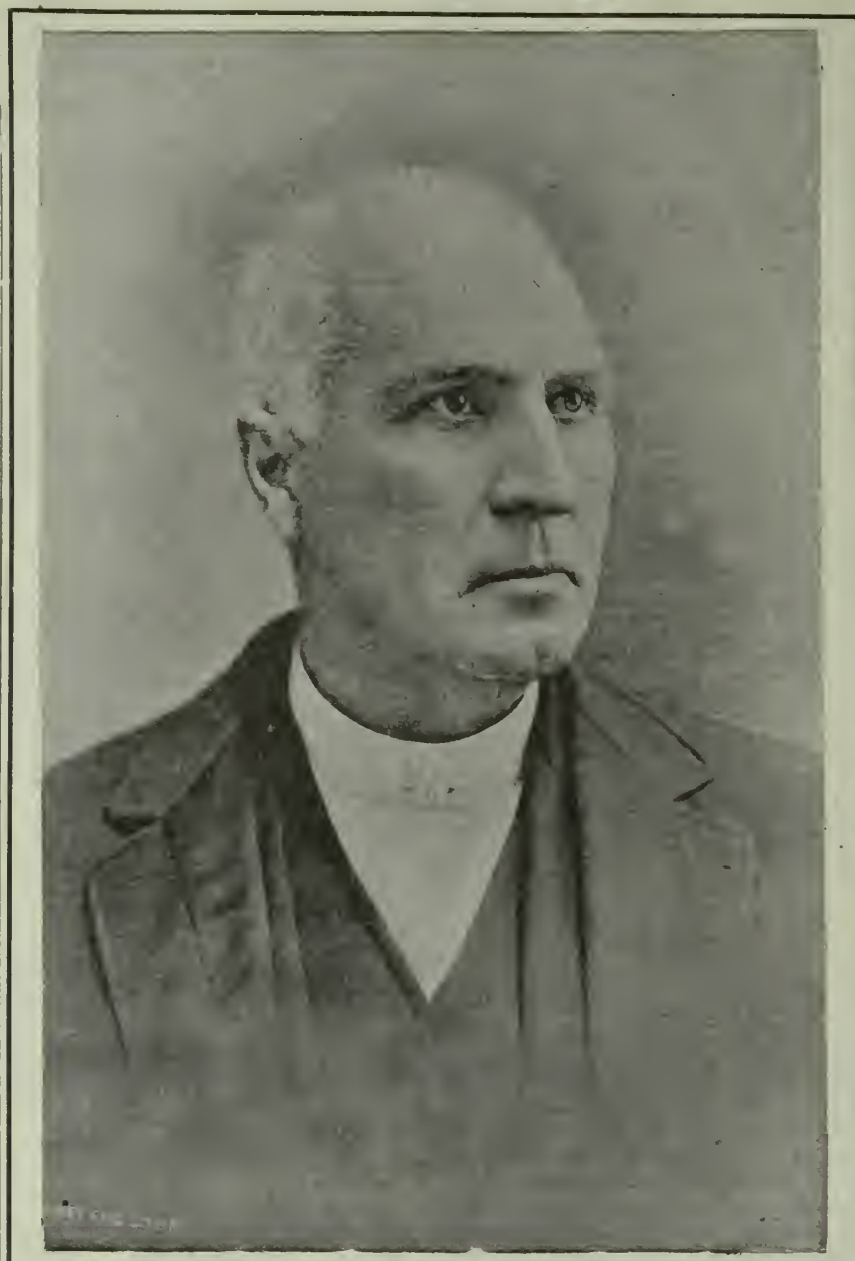
There has been much said and written, recently, about Government loans. But who has struck the keynote? No doubt each lawmaker, each writer, each financier, and perhaps every thoughtful reader, thinks he is right; but, honestly, do you think the plan has been proposed that will not work hardship and invite danger? The question is one of the greatest magnitude. No safe conclusion can be obtained by a hop, skip and jump. Great care in every detail will be necessary. No loopholes should be left open. Guard safely and cautiously every inch of this territory or we may go from the pan to the fire. Let's make haste cautiously, and while wanting to advance, keep pretty near the middle of the road!

Would you like to see a farmer in the U. S. Senate from California? Seems to me 't would be a refreshing sight to see some man from the farm, called to leave his plow or dairy or drying-house, to go and occupy a seat in the council of the nation. Don't you know there are a hundred thrifty, honest, competent, successful farmers in California who would honor themselves, the State and the Senate, if sent to Washington. There are hosts of these "sons of toil" who are thoroughly posted, who are not for sale, who know what the interests of this State and nation demand, and who, if elected, could have and would have the courage of their convictions. No corporation would have its hand on these men, nor would the collar of any compact be found on their necks. The rights of the poor man would be as safely guarded and as studiously supported as would the interests of the rich man. Equal and exact justice would be the motto, not in words (empty words at that, too) but in votes and deeds as well. The home, the family, the little school and the country postoffice would be better legislated for by such a Senator than by a rich lawyer or retired millionaire. It is the humble citizen who now needs the assistance of legislation. Our wealthy "brothers" are amply cared for by present laws. Give us a Senator who will legislate for and guard the industrial interests of our State and nation.

The well-filled head, whether of the wheat or of the man, is the one that is most modest and most steady. If of the wheat, it turns toward Mother Earth, as if to show by modesty and humbleness its debt of gratitude for nourishment and development, and at the same time to seek shelter from the winds and storms. If of the man, the head is bowed because the thoughts are weighty and the laws of gravity prevent a heavy object from flying through space of its own force. It is the empty head of wheat and of man that is swayed by every breeze, and turned up and down, in and out, back and forth, by every passing, shifting current.

"Keep the eye of the mind open!" It will save you many steps, many stubs of the toe, many falls, many hardships, and many, many disappointments. It will insure you hosts of friends, much valuable information, many kind and needed companions, and thousands of opportunities to be good and to do good.

Study Cushing's Manual of Parliamentary Practice, and you will find a fortune of useful, practical information! See if you can't raise a "knotty question" of parliamentary law at



THE LATE C. J. CRESSEY, TREASURER STATE GRANGE OF CALIFORNIA.

your Grange meeting. It will sharpen your ideas to discuss the subject, if you get into the merits of the matter.

Weather and health permitting, a Grange is to be organized at Placerville this Saturday.

Nature presents many bright and beautiful objects. Do you see your full share of them? Do you enjoy the charms of Nature? There are many apparently silent objects that speak a "varied language." Have you ever conversed with a leaf, or a bud, or a flower? Do you understand the language of geology, or of chemistry? Nature addresses you on every hand. Do you return the salutation? If not, why not?

Standing Committees for the next session of the State Grange will soon be announced. Workers are wanted.

## Dixon Grange Reorganized.

EDITORS PRESS:—After a public meeting and two attempts, Dixon Grange was put on its feet again with 27 members to start in with.

I went to Dixon on Feb. 21st to reorganize it, but the weather being too stormy for the farmers to turn out, I returned without accomplishing anything. By correspondence, it was agreed that I should try it again on March 7th. On that day, with the exception of a north wind, it was fine, and the attendance was fully as good as I expected. About two-thirds were old members, and they showed a good deal of enthusiasm at the prospect of having the Grange started again. Officers were elected and installed, and were instructed in the work as far as time would admit.

Important business detained several who will come in later on. They elected a good set of officers, I think, and I expect to see a lively Grange at this place.

Dixon is surrounded by a fine farming country, with large barns and good farmhouses. Grain-farming seems to be their principal business, and some of their fields give great promise in the future.

They will meet again next Saturday and begin their drill. When they act their regular day of meeting, I hope some of our State officers will call on them and assist them in the work.

I wish Dixon Grange all the success it is possible for it to attain.

D. F.

## Death of Bro. C. J. Cressey.

Thousands of readers of the RURAL will grieve to know that the manly form of which we give a portrait upon this page is now silent in the embrace of death. Having for over a year struggled with bodily ailments which, however, could not repress the eager spirit nor chill its active interest and love, there came a time about a month ago when the strong man was obliged to retire to his bed and turn his face toward the unseen world. This he could do with the same firmness and fearlessness which marked his course throughout his life, and he devoted the few days remaining to him to the arrangement of his affairs so that the rewards of his years of toil and business effort should pass to the hands into which he desired to consign them. Thus the strong man, the loyal friend and earnest Patron passed away in the consciousness of a life honestly spent, leaving sadness and mourning in the hearts of all who knew him.

Calvin J. Cressey was of English descent, but a native of the old "Granite State," having been born in Conway, N. H., in the year 1830. He was raised on a farm (his father being a farmer), but at the age of 17 years, being tired of clearing land and digging rocks, he obtained the consent of his parents to start out and begin the battle of life for himself.

Going South, he spent five years in Georgia and South Carolina in various pursuits, and succeeded in accumulating a small amount of money. After this, on account of his health failing, he returned North, soon regained his strength, and in 1859 removed to California, where he landed with \$10 in his pocket and engaged in farming near Stockton.

Subsequently he moved southward, and was among the early farmers of Stanislaus and Merced counties, growing wheat and raising stock in company with his only brother, A. L. Cressey. The joint interest included 10,000 acres in Merced and 10,000 acres more devoted to cattle-raising in San Luis Obispo.

Of late, Cressey Bros. have engaged in banking in Modesto. They have been in partnership for 41 years, and their business has grown up with the country; and we understand that harmony has always prevailed between them through all the ups and downs of their career.

Bro. C. J. Cressey was a leader in organizing the Grangers' Bank of California, and has worked faithfully and honestly for the upbuilding of that prosperous institution, which has already done much to assist the farmers and Patrons of this State in storing and holding their crops at home and in obtaining money on them—to the extent of over \$500,000 in a single season. The charter list of Modesto Grange, No. 4, contains Bro. Cressey's name, and he was always an earnest and hard-working Patron. He was a director of the Grangers' Bank and the Bank of Modesto, and Treasurer of the State Grange. He was very decided in his convictions, and in all matters pertaining to the Grange, farm and finance was fearlessly outspoken.

Bro. Cressey, as his photo-facsimile portrait in this issue indicates, was a man of strong character. As manager of the Grangers' Bank during the financial panic that ruined older and bigger concerns and severely tried the Bank of California, he showed marked ability and firmness in carrying the Grangers' Bank safely through, the farmers and other depositors having great confidence in his honesty of speech and conduct.

During the last few years Bro. Cressey has been especially active in Grange work. He made a trip to Oregon and Washington, attending the meetings of the State Grange in May and June of last year. He attended the National Grange in Atlanta in November last and afterward visited the State Grange of Massachusetts and New Hampshire. He has also made his presence deeply felt at many of the subordinate Granges and general Grange gatherings in this State. He was a most entertaining speaker, his addresses being brim full of sparkling humor and sound sense. His visits to the various Granges were always welcome events, and while he held the floor the listeners were always interested and benefited.

Bro. Cressey was married in Brownfield, Maine, about 1854, to Lydia A. Cram, who died in Oakland some 12 years since. He was afterward married to Mrs. Georgia B. Heath of Oakland, who has ever since been the beloved partner of his life. Besides his widow and brother, he leaves to mourn his loss two sons and a daughter—Frank A. and W. C. Cressey and Mrs. C. C. Crow. All of his family were with him when the end came at his home in San Jose at 8:25 on Tuesday evening, March 10th.

Bro. Cressey's funeral will be held in Oakland, at Odd Fellows' hall, corner Franklin and Eleventh Sts., on Saturday, March 14th, at 1 P. M. The funeral will be held under the auspices of the State Grange, according to requests especially made by Bro. Cressey just before his death, and an address will be delivered by W. M., E. W. Davis, a fraternal associate and esteemed personal friend of the deceased.

His remains will be placed in his family lot in Mountain View Cemetery near Oakland.

## Cause of His Death.

Bro. C. J. Cressey complained for some two years of heart trouble. Through the irregular action of that organ he had been at times suddenly prostrated and for many months had to govern his actions with great care.

During the latter part of 1889 he seemed better of that difficulty. Yet he was far from feeling well on venturing to the National Grange at Atlanta last November. He managed, however, to speak there with his usual force and attractiveness, although immediately afterward taken quite ill. While spending nearly a month in the East, he failed to revive his strength and came home quite exhausted.

Early in January he was in attendance for a brief time at two daily sessions of the Executive Committee State Grange in San Francisco, and a day or two later took part in the meeting of the bank directors, which we think was the last day he remained on his feet. From that time his friends have considered his life in a very precarious condition.

Some four weeks since he was examined by an old and highly-reputed physician of San Jose, who reported that his difficulty was progressive pernicious anemia—a wasting away by blood turning to water. The examination showed through the best and most delicate of instruments but very slight action of the heart. His stomach and other alimentary organs had no natural action during the last month of his life. When we last visited him, Feb. 24th, he had been 12 days without food and, subsequent to that time, he swallowed and retained only the merest trifle of liquid nourishment. He was able to articulate audibly up to within a day or two of his death, being apparently calm and firmly satisfied and hopeful in his mind and belief, and without pain of body. His consciousness remained to within a few hours of his departure.

There is hardly a Grange household in the State that will not feel as if it had been visited by a personal loss, and many a Grange and family circle throughout the Union will personally mourn his loss. Although gone from our visible presence, his influence will remain as a continuous life-influence for good among those who have known him, loved him and been uplifted by his whole-souled examples of kind and right doing.

His widow, sons and daughter have our kindest sympathy with that of thousands of other sincere friends of the noble head of their household.

INFORMATION WANTED.—The Secretary is in receipt of the following from a brother Patron



in Illinois: Knowing you to be in constant communication through the Secretary's office with the several Granges of your State, I would like to inquire through you for information of the whereabouts of a brother, by name Wm. C. Depnty. I have not heard from him for 15 years, and thought I might perhaps hear something of him through the Grange. Any information concerning him will be thankfully received. Address Charles Depnty, Fairmount, Illinois. [Please read in the Grange—A. T. D., Sec'y.]

Official Circular.

DEAR PATRONS:—It becomes my painful duty, under request of the Worthy Master, to inform you that our Worthy Treasurer, C. J. Cressey, passed peacefully and quietly away at his home at San Jose at 8:25 P. M. on Tuesday, March 10th.

His funeral will be held at Odd Fellows' hall, Franklin street, corner Eleventh, Oakland, at 1 P. M. Saturday, March 14th.

It was the request of Brother Cressey to be buried by his brothers and sisters of the Grange, and it is hoped that as many of the officers and members as practicable will attend. Fraternally, A. T. DEWEY, Sec'y State Grange, P. of H. of Cal., S. F., March 11, 1891.

FARMERS' INSTITUTES.

Expenditure of the New Morrill Fund.

Provision for Farmers' Institutes.

At the meeting of the Regents of the University, held March 10th, the following report, providing for the fuller equipment of the colleges established under the Morrill Act, and for the establishment of Farmers' Institutes, was adopted:

To the Board of Regents of the University of California: Your Special Committee on the appropriation of the fund provided by the new Morrill Act reports as follows:

I. The committee has sent to the Alameda County delegation in the Legislature the draft of an Act accepting the new fund, necessary to secure the benefit of this Congressional grant, and such an Act will doubtless be passed.

II. In considering the proper distribution of the amount from this fund already available, your committee has been guided by the following principles:

1. This new grant, like the Morrill grant which it supplements, is intended chiefly for the direct benefit of the Colleges of Agriculture and Mechanic Arts. But the terms of the new Act specify also "the English language and the various branches of mathematical, physical, natural and economic science." Therefore it is the opinion of your committee that the Act should not receive a narrow interpretation, but that there should be a comprehensive view of all the departments which have "applications in the industries of life." And so statements of existing needs have been received from seven of the professors in the Faculties of Science and from the Professor of English.

2. This fund is intended to provide new facilities and appliances, and not to pay for those already existing.

It looks toward a more rapid expansion than would result from the natural growth of the colleges already established.

3. As has been suggested by the Association of American Agricultural Colleges and Experiment Stations, the first payment of \$15,000 should be regarded as an equipment fund, not to be used for salaries.

Your committee has therefore assigned this \$15,000 entirely to the side of equipment.

The \$16,000, of the second payment, may fairly be regarded as a salary fund for current expenses. But as the year is so far advanced, only a portion of this amount can be used for salaries; and the residue should, in the opinion of the committee, be reserved for use on the side of equipment.

Bearing these principles in mind, your committee recommends such an apportionment of the two payments as is indicated in the following schedule:

	Equipment.	Salaries.
College of Agriculture.....	\$2,850	\$3,800
College of Mechanics.....	6,800	3,200
College of Mining.....	2,680	1,320
College of Civil Engineering....	250	1,500
College of Chemistry.....	500	1,500
Department of Mathematics....	1,200	....
Department of Botany.....	980	1,020
Totals.....	\$15,260	\$12,340

Your committee also recommends that special courses of lectures be provided by the College of Agriculture, and, aided by this new fund, said lectures to be given daily for a short period, for the accommodation of those who cannot attend the longer courses of the college.

Your committee regards the specification as to the English language as one of much importance, and recommends that in the near future an allotment of \$1800 per annum be made for an Assistant Professor of English, whose work shall be especially adapted to the needs of the students in the Colleges of Science.

Calling attention, now, to the details of the appropriations in the foregoing schedule, your committee recommends:

(1) The adoption of the following explanatory resolutions concerning the Departments of Agriculture and Horticulture:

Resolved, 1. That in compliance with the request of the State Grange for the appointment of a lecturer to take charge of the holding of "Farmers' Institutes" in the various agricultural centers of this State, Mr. E. J. Wickson, the present lecturer on Agriculture and Horticulture, is hereby appointed to organize and carry into effect a system of farmers' meetings, substantially similar to that already in operation in Wisconsin and other agricultural States, with such modifications as the peculiar conditions existing in California may render expedient; and

Mr. Wickson is requested and instructed to report to the chairmen of the faculties a suitable plan and regulations for that purpose, including the enlistment of other speakers from the University faculties, and from the ranks of practical agriculturists as may be found feasible.

2. That as in view of the relatively sparse population of this State, it is presumable that only a portion of Mr. Wickson's time will be thus occupied; and in view, further, of the difficulty of providing competent instruction in the branches of agriculture now taught by Mr. Wickson at the University in their application to our peculiar climatic conditions, he is continued in charge of such instruction, with such assistance and necessary changes in the order of giving said courses as may be required to maintain their efficiency, and as may be provided and authorized by the Board of Regents, and his present title is changed to that of "Associate Professor of Agriculture, Horticulture and Entomology."

3. That in order to relieve the cumulation of duties now existing, and to better provide for the work required in the economic entomology of the State, there is hereby created the position of "Assistant in Entomology" to the Associate Professor of that branch, whose duty shall be to give instruction in entomology to such extent as directed by the Associate Professor, and to prosecute researches with special reference to noxious and useful insects. A salary not exceeding \$1800 per year, to be paid out of the lately created fund for the better endowment of the Colleges of Agriculture and the Mechanic Arts, is appropriated for this purpose.

4. That in order to provide for the more prompt carrying out of work in the agricultural laboratory, which now is largely in excess of the possibilities of the working force, and months in arrears; and also to relieve the director of the numerous details which now prevent his timely attention to the elaboration of plans and reports, Dr. R. H. Loughridge, heretofore Professor of Agriculture at the University of South Carolina, is appointed to the position of "Assistant in Agricultural Geology and Agricultural Chemistry," under the direction of the Professor of Agriculture. His salary shall be \$2000 per annum, payable out of the same fund.

5. That all the persons or officers hereinbefore mentioned shall act in the double capacity of lecturers or instructors and of officers of the Agricultural Experiment Station, in such manner as may be expedient, and determined by the Professor of Agriculture and Director of the station, in concert with the President of the University or chairman of the faculties. They may be called upon to participate in the Farmers' Institutes, and their expenses incurred while doing so, as well as those of other lecturers that may be called in, shall be paid out of the fund already referred to, under the same rules as now govern the traveling expenses of the Director, Inspector of Stations and other officers of the Experiment Station. For the payment of such expenses a sum not exceeding \$1000 per annum is hereby set apart, from the same funds.

It will be seen from the first of the foregoing resolutions that, while Prof. Wickson's salary would still be paid from the old fund, the work proposed for him is mostly new, and in direct response to the call for practical instruction in agriculture.

It is to be noted, also, that Prof. Hilgard urges the need of a plant-house, costing \$6000. This request, as also one for \$500 for changes in the present buildings, the committee judges to be outside the limitations of the new fund, but recommends to the favorable consideration of the board:

(2) To the College of Mechanics your committee has allotted the large equipment item of \$6800.

The chief need seems to be the full establishment of a department of electrical and hydraulic engineering. At present the college can lay no claim to having an adequate plant or apparatus.

The rooms occupied by this college are too few and small for this new department. Years ago the Legislature was ready to appropriate \$12,000 to this college for an additional building, but just then the One-cent Tax Act in favor of the University was passed, and all special appropriations were dropped. Since then the college has asked in vain for a new building, the need for which has become very pressing.

Presuming that this need will soon be recognized by the board, and met from the general fund, your committee recommends that this sum of \$6800 be expended in the purchase of a stationary plant and apparatus for the hydraulic and electrical department of the laboratory.

(3) The allotment to the College of Mines is needed now and can be put to immediate use.

(4) For the College of Civil Engineering the only salary proposed is for an instructor in free-hand, topographical and architectural drawing, which the committee deems a very reasonable request.

(5) To the College of Chemistry your committee allots one new salary, that of an instructor, to aid in the development of a science which has many "applications in the industries of life." The \$500 for equipment will help toward the same result.

(6) The sum assigned to the Department of Mathematics is needed chiefly for models, as described in the accompanying pamphlets.

(7) The allotment of the Department of Botany contemplates the beginning of a botanic garden, the great need of which is clearly shown in the statement of Prof. Greene.

The sums thus apportioned amount for equipment to \$15,260, for salaries to \$12,340, making a total of \$27,600 out of the \$31,000 placed at our disposal.

The balance, \$3400, and a large part of the salary fund for the current year, may constitute a reserve fund to be chiefly used for equipment.

In closing its report, your committee makes the suggestion that all appointments below the grade of associate professor, made by the Board of Regents in executing this new trust, be made for the period of one year.

We recommend that a separate set of books of account be kept in detail of all receipts and disbursements under this Act. Respectfully submitted,

J. F. HOUGHTON,  
GEO. T. MARVE, JR.,  
ARTHUR RODGERS,  
Committee.

March, 1891.  
The adoption of this report by the Regents makes its provisions operative and thus outlines their course in the directions contemplated.

FARMERS' ALLIANCE.

SUBSCRIBERS wishing fuller information of the Alliance can have their names changed to the Grange Edition of the RURAL PRESS free, much to their advantage, this department being continued in the same.

What Shall the Harvest Be?

To one who has sufficient leisure to stop and look around him, it must appear that the farmers and laborers of the United States are marshaling their hosts for some definite and well-planned purpose.

From Maine to California, in every city and hamlet, the different classes of laborers are already quite well organized. These organizations are fast pushing to completion, and at present progress and prospect, Jan. 1, 1892, will find an organization of farmers in almost every country school-house in the land.

For general purposes, these bodies are forming a solid compact. They feel that deep and grievous wrongs are being heaped upon them, and there is a resolute determination to right those wrongs.

These organizations represent at least three-fourths of our population. Their votaries are the bone and sinew of the land, and furnish the comforts and luxuries for all. They are the burden-bearers of the nation, the strength of our armies and navies, the balance-wheel of society, the backbone of the nation's credit, the stay and support of the banks and other financial institutions, the succor and stronghold of civilization and enlightenment, and the guardians of the nation's liberty.

In the various branches of their calling is founded the unprecedented thrift and advancement of the last half of the nineteenth century; yet as a class they are steadily losing ground in the midst of the very prosperity and great abundance which are the work of their own hands.

Mentally the peers of any class, morally their superiors, they are slowly sinking in the scale of human existence and falling to decay.

They have sought and found the cause; they have ascertained that the organized and fortified hosts of earth are preying upon them like vultures upon the carcass of an ox. They have found on our statute-books laws discriminating in favor of others and against themselves; they have sought and still seek a peaceful redress.

They have asked that class legislation shall be repealed and cease to exist; that the national currency and national credit shall not be loaned to the few but to the many, not to a class but to any who have good and ample security. In reply they are told: "It is not constitutional to loan to Jones the farmer, but to Jones the banker;" that "it is not safe to loan on solid soil but on paper security."

They have asked that the circulating medium be increased to a sufficient volume to do the business of the country on a cash basis, and are met with the assertion that such an act would be imprudent.

To the end that virtue be not trailed in the dust, industry strangled, and that the purity of a freeman's ballot be maintained, they have asked that the Australian ballot system be adopted, and have been turned aside.

They have asked that the Government assert its rights in the matter of the Pacific railroads, and are answered with an effort to virtually donate hundreds of millions of the people's money to those gigantic specimens of organized greed.

They have asked that the Government curtail the unwarranted and dangerous power of the great trusts that are sapping the vitality of our industries, and are answered with a bill to loan (donate) one hundred millions to establish the Nicaragua canal trust. They have asked for bread and have been given a stone. They naturally shrink from the political arena; but the idea that they are not concerned in our national movements has been abandoned, and it will soon be found that they are making it their business; then what becomes of the man who dares to assist in the perpetration of such infamous schemes against our commonwealth? The politicians have planted the seeds of discontent in deep and fertile soil to spring forth and bear fruit. It will be the business of the Alliance to eradicate them at the earliest moment.

ALLIANCE BUILDING WAREHOUSES.—The Rosalia Rustler says that A. J. Calhoun, A. J. Stone, J. H. Miller, John Weldon and Wm. Coleman have been elected as trustees for a term of six months to build and operate the Rosalia Alliance warehouse. The selection of trustees was a happy one. The success of the undertaking under their management is a foregone conclusion. The building of Alliance warehouses is a solution of the vexed railroad problem that promises good results. The Alliance should own and control a warehouse at every station along the railroad lines of the State. In this way the combination of railroad and warehouse interests against the farmer will be robbed of its sting.—Tacoma Ledger.

THE "GARDEN CITY ALLIANCE" is a bright new F. A. & I. U. weekly of eight pages just started in San Jose by Hulbert Bros. & Co., an enterprising firm of job printers. J. B. Rigdon, a newsy writer, is editor. It is the official organ of Santa Clara county and bears the appearance of being entitled to the favorable consideration of both members and citizens.

[For the PACIFIC RURAL PRESS.]

The New Age.

[By ELIZA A. PITTSINGER.]

All things are onward moving,  
Let the blessed time begin!  
The Old is swiftly passing,  
And the New is coming in.  
The golden bells are ringing,  
And the pageant sweeps along,  
Like an army that is marching  
To the music of a song.

Old theories are waning—  
They are weak to build upon;  
The light is on the hilltops,  
And Truth is marching on.  
Old landmarks are but shadows,  
And they fade and flee away  
Before the mighty forces  
That are coming in to-day.

Up with the larks of morning!  
Up with the rising sun!  
Waiting not for noonday,  
Nor halting when begun;  
For everything is moving,  
And everything will show  
That the Poet was the Prophet  
In the ages long ago.

Ye mourners weep no longer  
Mid the shadows grim and sere,  
The cross is crowned with blessings  
That will blossom every year!  
We know the soul is deathless,  
And that love can never fade;  
That our Father's heavenly purpose  
Is to bless what He has made!

What though a vacant chamber  
Or a vacant chair is seen?  
The Tree of Life is blooming  
And its leaves are ever green!  
What though the winged spirit  
Leaves its garment in the sod?  
It shall wear a robe of beauty  
In the summer-fields of God!

The Farmers' Alliance.

The phenomenal growth and spread of this organization is something rarely seen. At a single bound it has reached a position commanding universal attention. The eagle eye of the political demagogue realizes in it a potential reality pregnant with possibilities, if he can only steal into its graces and confidence. In his mouth the trite phrase that the farmer is the "bone and sinew" of the country and the farm the nursery of patriotism, will roll from him as ribbon from the mouth of a sleight-of-hand juggler. From now until the election of 1892 he will be dead in love with everything agricultural from a broken wheel-barrow to a thrashing-machine, and nothing but a personal knowledge of the orator could cause the farmer whose vote he is after to doubt the sincerity of his devotion. While these soft and sweet compliments from the mouths of vote-hunting demagogues will only be intended as taffy, the fact will remain that it is the farmer who feeds and clothes the people, and that whatever is detrimental to the farmers of any country is equally detrimental to its laborers, no matter what their vocations.

The object of the Alliance should be and doubtless is to discover the cause of their declining prosperity and apply a remedy. Class legislation has brought them to the door of the poor-house, and any legislation that has for its object the exclusive benefit of the farmers at the expense of others will bring no permanent relief. A fair chance to all and special privileges to none is all that legislation can perform. A political organization whose purpose is to help the farmers without regard to the rights of others might win one victory but not two. The greatest army that ever marched to battle is often doomed to defeat by a blunder or over-confidence in its numerical advantage, and the Alliance will shatter its prospects should it seek to secure redress through class legislation. Let the farmers concentrate their efforts to secure relief by the reduction of tariff taxes, free coinage of silver, and other reforms to which the Alliance is committed, and the people in general will flock to their support.

The reduction of taxes on what the farmer buys, to give him a fair chance in the foreign markets with his surplus products, the free coinage of silver, the prohibition of alien ownership of land, and the election of United States Senators by a direct vote of the people, are the fundamental ideas of the Democratic party, as well as of the Alliance. The restoration to power of that party, and the application of these ideas in the administration of the Government, is the shortest and most certain route to secure all the relief within the reach of legislation.—Santa Rosa Democrat.

OF EXCELLENT MATERIAL.—State Deputy Frank P. Cook writes from Galt, March 5: The membership in Sacramento county is remarkable for independence, intelligence and determination. The County Alliance, like those of Stanislaus and San Joaquin, submitted to the membership proposals for county laws for the Order, which, if adopted, will preserve the political power of the organization in the hands of the membership.

AN ALLIANCE was recently organized at Hartland with G. W. French, President; A. J. Pittman, Vice-President; C. Bridgefarmer, Treasurer; and Wm. Bridgefarmer, Secretary. They have over 30 members and are gaining steadily at every meeting.—Goldendale Courier.





### To a Lily.

(Written for the RURAL PRESS by S. H. DRYDEN.)

Oh, lily fair, O flower of creamy white,  
Which standest near the dark and silent pool,  
Spreading thy broad leaves to catch the tears of  
night,  
And set thy brow with jeweled dewdrops cool.

Sweet flower, the cold, pale moonlight's beam  
Spreads over thee a veil of silvery light,  
And in thy regal beauty thou dost seem  
To stand alone, bride of the silent night.

All through the day the balmy perfumed air  
Has bathed thy tender leaves with softest touch,  
While over thee the birds with notes so sweet and  
clear  
Sang love songs to thee from each leafy perch.

Oh, didst thou dream while in the depths below,  
In midnight darkness, wrapped in lonesome  
gloom,  
And in thy secret heart, oh didst thou yearn to  
know  
Of this thy life, the glory of thy fragrant bloom!

Oh, lovely flower, did throbblings come to thee,  
Shut in thy prison, bound with clods of clay,  
And whispers of the beauty thou dost see,  
And feel, within thy heart of gold, this summer's  
day.

Beneath the clay thy sweet life had its birth  
Pressed near the clay, thy tender rootlets grew,  
Wrapped in the darkness, solitude and dearth,  
In patient waiting thou didst fill thy mission true.

Prophetic flower, thou' dost to me unroll  
A world of beauty which above me lies;  
What if the world to me is darkness cold,  
And I, alone, must mourn my broken ties?

Oh, weary soul of mine, upreaching for the light,  
Struggling with mystery, doubt, and oft despair,  
Take heart, poor soul, 'twill not be always night,  
Thou, too, shalt rise up to a higher sphere,

And love's dear hands shall open my prison bars  
And love's sweet voices sing to me again;  
Oh love, thou birthright of my childhood's years,  
Thou shalt survive all sorrow, toil and pain.

### My Singular Friend Miss Ransome

FIFTH PAPER.

(Written for the RURAL PRESS by L. H. S.)

SILENT SPRING DISTRICT, Feb. 27, 1885.  
*My Dear Rose:* Now that you are married and have interests all your own to look after, I know that you do not expect to hear from me so often. But you must forgive me as before, dear Rose, for always writing what I happen to be thinking about and not what you might expect to hear. Yes, I am still single and still teaching in the great central valley that I have learned to love so much. Since mother passed away I have no desire to return to the city, and since I have sold the little cottage on Twenty-third street and invested it in fruit land, I feel sure that some time I can leave the school-room and found a little home for the development of my ideas of doing good in the world. I have not yet become convinced that the republican form of government in the home is the best. I believe that the home, until the new generation is of age, should be an absolute monarchy, with liberal reason the prime minister. If the father and mother are not king and queen, the home loses its charm for me. My ideal home will not have a king, that I know of, so I will have to be absolute mistress there; and if my subjects are not benefited thereby and do not love me as a mother and queen, I will dismiss my subjects and return to a selfish life. I would like to found a small orphanage all my own, and bring up four or five children on my ideal farm. It would be grand to be the mother, sovereign and mentor of so many souls and control their instincts and inspirations and education. I wonder if we could not all work together and make the farm support us! This is utopian and I am a dreamer! But I heard another old maid advance that plan, and I fell to thinking about it. As a financial scheme for self-supporting old maids that is not bad. Adopt an orphan boy at ten years; at twenty-one he is self-supporting. He will remember his foster-mother with love and gratitude and support her in her old age.

But this is not what I started to say in answer to your letter.

You amused and interested me very much by your account of the societies to which you belong, and your estimate of the good you are doing in the world. Not that I have anything to say against guilds, clubs and societies. They have become the ties of society now, I fear so. I fear it has come to pass that you can't have any social pleasures at all without belonging to a society or club and paying the usual fees and dues. The new customs are good enough. They afford one a large play of personal liberty. But I fear in our enthusiasm we are parting with many good customs and habits that have

been very dear to us during our national progress.

When I was in the city on my last visit, I was surprised to note how seldom I was invited to the homes of our old friends. For this reason I did not see many of the fathers and brothers who might have listened to my opinions on farming in which the women took not the slightest interest only to be disgusted that I should want to come back.

Mrs. Trotter apologized. "I would like to ask you to come to my home to dinner, Miss Ransome," she said, "but I have so many committee engagements this week that I don't know when I will be home to dinner."

The world must be reformed at any cost, I suppose, but I like living down here, where I can go to some one's home without being in danger of being elected recording secretary.

People are abandoning the custom of talking on theoretical or problematical subjects, because their views are they not already chronicled in the constitution of the several societies to which they belong?

My opinions are safely locked up in the minutes of the X. Y. Z. society; why should I trouble myself about further promulgating them?

I suppose it is a load off one's conscience; you pay your dues and the president and secretary will attend to the rest. People are rather at a loss for subjects of conversation. It is a kind of a chestnut to advance an opinion where two or three are gathered together. We can't even talk about the weather; the Signal Service attends to that.

We don't try to return visits as we used to; we relegate our social duties to the Visiting Committee of the U. V. W. society, and carry a free conscience. Where are the "old friends" and "old neighbors" and "intimate acquaintances" of simpler times? There isn't so much natural good-will; interest is based on mutual union, or club or circle relations, and is dissolved on non-payment of dues.

You might think I don't believe in organizing; but I do. It is grand machinery when there is power to run it. But when there is no special object, and sometimes no steam, it is an unnecessary burden on good, which would progress spontaneously.

Organization with definite ends in view, which means work and not so much play, is grand. Our women do not realize that they can actually do things by organization. They have idled around so long with resolving and dissolving that they have forgotten what it means.

If the women of this country would organize in the cause of education, we would not have to be so continually striving and striving to combat evil influences. More education for the masses in a direct way is what we need. Then we would have good society anywhere and a freer people.

In order to vote intelligently, a man ought to know something of the political history of every nation; and where we have no high schools or academies in many of our counties, it is serious to think about. Many of the boys in the country leave the public schools at the age of fourteen; and the only great man they know much about is the patriot Washington, and not much about him. If the women would organize and mean something definite, they could found several academies in this valley. When a boy is fourteen, he can run a harrow, and so his father takes him out of school. The women might organize and look after those kind of fathers politically and socially; or they could do some educating on their own account. Every twenty women, at \$15 a year apiece, could maintain a scholarship; or fifty women at \$6 each. I would like to be one of the twenty to do so noble a deed. Lord, where are the other nineteen?

A thousand women could maintain an academy. I think that would be a grand way to organize, and the fees and dues would be alive with virtue and pour out a plenitude of reward close at home. You can't reform the world without educating it, and a little more definite work of this sort would be like the little leaven that leavena the whole lump.

Kiss the baby over and over for me; I love it and love it, even if I am its mother's oranky old-maid friend. Yours seriously,

EMILY RANSOME

THE FIRST AMERICAN WHITE CHILD BORN ON THIS COAST—Henry Spalding, or Almota, Washington, writes to the Walla Walla Union of Feb. 28: The first American white child born on the Pacific Coast was Dr. Marcus Whitman's little girl. She was born at the Whitman mission station, in the Walla Walla valley, about five miles west of where the city of Walla Walla now stands. She was drowned when about two years old. That was the only child they ever had. The next was the Rev. H. H. Spalding's eldest daughter—who now lives at Brownsville, Or.—Mrs. Eliza Warren. She was born at Lapwai, ten miles east of Lewiston, Idaho, in 1837. Revs. Whitman and Spalding, and W. H. Gray, of Astoria, crossed the Rocky mountains in 1836; Walker and Ellis in 1838. You will see by this that Mrs. Eliza Warren, eldest daughter of Mr. and Mrs. Spalding, is the oldest now living.

OLD LADY (to little boy caressing dog)—That's right, little boy, always be kind to dumb animals. Little Boy—Yes, mum, I've got a kettle to tie on his tail as soon as I get him quiet.

### Young Shoppers.

(Written for the RURAL PRESS by MAUDE S. PRANLEE of California.)

So many people assume the cares and duties of housekeeping and home-making without the knowledge gained by experience in handling money. No amount of theoretical wisdom on the subject can compare with the ease and judgment in selecting goods of any nature, that comes from much practice and the many lessons that experience teaches. These lessons are oftentimes bitter and painful ones, almost always annoying, so happy and fortunate is the young housekeeper who learns them early in life.

The safest and least humiliating place to acquire this ease is under the home-roof, where a dear, loving, sympathetic mother can guide and advise against errors. Children may be trained very early to understand and appreciate the value of money, and I know of no better way than to allow them to purchase some simple articles for the house.

All children should have a little money of their own to accustom them to personal expense. No child realizes the unavoidable expense he is to his parents unless he handles, and, if possible, earns some of the money that is used in keeping him comfortable and happy. Such knowledge, if properly brought to a child's notice, will only serve to make him more considerate of his parents and less likely to make them needless trouble.

This habit of allowing young folks "pin-money" is a familiar one in many families, but few, I think, take the pains to instruct them in the important art of judicious buying. Children enjoy a little importance very much, and will exercise great care if sent on an errand in which they may use their own judgment. When the result is unsatisfactory, gently point out the fault; if all is well, be equally sure to give due meed of praise, for much credit is due the child who succeeds while learning something new.

One girl can never forget how hard was her path, when, on going at seventeen to live with an invalid aunt, she, for the first time in her life, had all the shopping to do. Totally without experience in this kind of work, for work it certainly was, she was often completely at the mercy of the storekeeper, and, on reaching home, extremely liable to her aunt's displeasure.

Let me relate one instance. She was sent downtown one day to buy gingham to make six short dresses for the year-old baby. For two, she bought material of a small blue check, for two more of a small brown check, and for the other two of a pink and white that was very pretty to the eye. No one had ever told her that pink rarely washed well, but she never touched one of those pink dresses in all the long winter that followed without thinking as she looked at the faded, slimpsey garment:

"Why couldn't some one have cautioned me against such a mistake?"

So, I say, it isn't enough to always see good judgment yourself in buying. You must teach your growing children why you select certain articles and why you reject others.

How, unless instructed, is a girl to know which dress-lining to select, when, perhaps, four kinds are spread on the counter before her? And yet upon this choice may depend the permanent fit of a dress that will, in many cases, be worn for best during two years.

Power in discrimination and comparison may be cultivated in this way at a very early age, and a child will often develop unexpected good judgment if permitted to exercise his own inclinations occasionally. Careful warnings, with given reasons, against what might prove tempting to the eye alone, should be part of such training. One wise mother said to her grocer, and to the head of the dry-goods house where she usually dealt:

"I shall occasionally send my little daughter to make small purchases, allowing her to use her own judgment. If I am in immediate need of anything for which I send her, she will bring you a note. Otherwise do not allow her to take time from your more important customers."

The dealers thanked her warmly, for there are many seasons when their time is altogether too valuable to permit of their turning the business into a training-school for young shoppers. So in this way the child had a chance to learn without defrauding others.

She was sometimes sent to "buy some suitable buttons for this gingham apron, dear," or some like instance, and although only ten years old, she showed considerable good taste and judgment.

She would occasionally beset to the grocery store to order vegetables for dinner, and was teasing hard to be taught all about meat, so she "could order papa's Sunday roast."

Not a precocious child, my reader. Only one whom a very conscientious mother had been training in this direction for several years.

Nor were other things neglected for this "fad" do you call it? Instead, all possible means were employed to develop all qualities into a perfect and harmonious character.

PHOTOGRAPHER—Your son, the student, had half a dozen photos taken a long time ago. Here is a proof I happen to have by me—a capital likeness, don't you think? But the young gentleman hasn't paid for them yet, I am sorry to say. Father—H'm! That's a good deal more like him.

### Shall the Producer Forbear?

EDITORS PRESS:—Your constituency should now certainly be smiling and complacent after such general and abundant rain. And as an interested reader of your entertaining and instructive columns, I extend the band of congratulation.

As pleasing as the crop prospects are, however, it was not of these I came to talk. Rather, I have been thinking along a line decidedly somber, induced in part by a newspaper reference to the raising of opinion in Southern California. True, the experiment was only on a small scale, still there seemed sufficient in it for encouragement, and quite enough to disturb every sincere sentiment of our public safety.

So this question most naturally presents itself: Will organized agriculture feel called upon to place its hands patronizingly upon the head of everything emanating from the soil?

Already it is finding serious problems, and one might heartily wish it freedom from foes of its own household.

But be that as it may, in all seriousness, if we must have drinks and opiates, by both production and importation in the name of our common humanity, ought it not to follow that the moneyed return from the traffic should be invested in institutions for the reclaiming of its victims? As an army in numbers, they stagger, swagger, maudlin and imbecile, to dishonored graves. And is this slaughter to forever continue and our humane, generous and strong Government to take no cognizance of and make no effort to save this diseased and pitiful class of its citizens?

Paved streets, or even electric lights and schools, are a mockery as any sort of substitute or honorable reparation for this destructive invasion of the bone and sinew of our land.

And whether the angels would sing for joy or no, this one thing is certain, benedictions innumerable are in waiting for the man or men who will invoke science in our behalf; and the ambition is little short of holy that aspires to have our great State inaugurate a pronounced and successful initiative. Know you of any law, written or unwritten, prohibiting California from establishing institutions for the care and cure of its inebriates? "VENTURA."

### Training Girls for Housekeeping.

There are the studies that must not be interrupted—social exchanges to be duly met; a certain amount of sewing and reading to be accomplished; out-of-door life in abundance, and enough sleep to insure health to be secured.

The most efficient, ambitious mother is often necessarily absorbed with other interests than adapting her spare moments to the intervals of her daughter's leisure; and the completion of house duties is imperative and cannot wait for the hand of a novice.

How would it do to begin the housekeeping lessons when the daughters are five and six? Teach them to handle their toys nicely and to arrange their playhouses conveniently for dolly's comfort. As they get older, show them how to dust and how to sew, using doll's patterns; and, when the study hours begin to grow longer, let them, once or twice a week, do some genuine housework, like the thorough sweeping of their own room; or making a certain kind of bread; the coffee for breakfast; from time to time a staple dish—desserts will easily follow. During vacation (with lots of fun in between), let them make out the program of two or three days' work, submitted the day before to the mother, to be carried through by them, with the exception of emergencies.

Let them contribute a share in the hospitalities of their home. Who is a more attractive hostess than the accomplished daughter, gracefully and intelligently entertaining guests in the home of her parents? And how easily and naturally all her growing duties will fall into line, in the home that follows that of her maidenhood.—L. H. Trivett in Rural New Yorker.

### An Enterprising California Woman.

Mrs. H. J. Langdon of Weaverville, Cal., the only woman mail contractor in the United States, is in Washington and has considerable business with the Postoffice Department. She is known to all the stage-drivers and mail-carriers in the West as "The Little Boss." She tells a reporter how she came to be a mail contractor: "It happened rather strangely. My first husband had been a large contractor and I was familiar with his business affairs. At his death he left a will bequeathing me twenty-five unexpired mail contracts and made me sole executrix of the will. I at once assumed control, and after they expired I began to bid on my own account and was successful in obtaining contracts. It is now nearly twelve years since I began to work for myself, and now that I am married again I have to bid in my husband's name. I am the only woman who carries the Wells-Fargo express, and from July 1 to the time the snow shut in we carried \$100,000 in gold dust. We have nineteen agents under our control. At present the longest route we have is 115 miles long, from Weaverville to Susanville, and 250 miles, or one-quarter of all the contracts, is under my personal supervision. "Black Bart" made his maiden effort at stage-robbing on one of her routes.—N. Y. World.



## Lost, Outside the Golden Gate.

[Written for the RURAL PRESS by M. F. ROWE.]

Lost! lost! oh, terrible fate!  
To be lost just outside the Golden Gate,  
Mid the furious, fearful tempest's roar  
To be driven helpless upon the shore,  
Engulfed in the waves, in the dark'ning night,  
With the beautiful harbor just in sight.

What tho' the voyage had prosperous been,  
With favoring winds and sky serene,  
What tho' the journey was almost o'er  
And just beyond was the dear home shore?  
Oh, it was sad—so near to come,  
And yet to be lost in sight of home.

Fellow-voyager over Life's sea,  
Little, oh little, it matters to thee  
Whether thy skies are bright and clear,  
And thou sail'st now without thought or fear;  
The storms will come, and alas, too late,  
Thy bark may go down outside heaven's gate.

Only one Pilot can steer thy bark  
Through the storm-tossed sea and the night so dark;  
Only one Hand can surely guide  
Through the breakers' roar and the swelling tide;  
One, only One, with His strong right arm,  
Can land you safe where no storms alarm.

Wilt thou let Him guide through the Golden Gate,  
To the Home where many loved ones wait?  
Or, all alone, wilt thou stem the tide,  
And vainly try the storm to out-ride?  
Then, alas, too surely 'twill be thy fate  
To be lost just outside the Golden Gate.  
Alameda, Feb. 27, '91.

## Chaff.

HENRY—Yes, I called to see Sickem's daughter last night, Harry, and I found it hard to tear myself away. Harry—She had such a hold on you, eh? Henry—No; it was the dog I had to tear myself away from.

WATTS—Now, if I understand correctly, the first principle of socialism is to divide with your brother man. Potts—Then you don't understand it correctly. The first principle of socialism is to make your brother divide with you.

"Oh, children! You are so noisy to-day. Can't you be a little stiller and better?" "Now, grandma, you must be a little considerate and not scold us. You see, if it wasn't for us you wouldn't be a grandma at all."

"Is he honest?" inquired a hanker of a friend who recommended a man for a porter. "Honest?" he echoed. "Well, I don't know what you call it, but he returned a borrowed umbrella to me yesterday." The man was engaged as cashier.

HIS ERROR.—Pedlar (in a conciliatory tone): I presume those lovely children in the yard are yours, madam? Madam (frigidly)—I have no children. Pedlar—Pardon me; since I see you more closely I see that the brats could not possibly be yours.

THEY were from Chicago, and rich. The daughter was taking lessons in coyness and social small talk. "A penny for your thoughts," she archly remarked to an abstracted visitor, and then felt from the look of horror that over-spread her parent's face, she must have been guilty of a false step. "Why don't you offer him a dollar?" was that lady's criticism after the visitor's departure. "We've got money and you mustn't be afraid to let folks know it."

GREAT EDITOR.—I advertised for a private secretary, whose chief duties will be to sit in the ante-room and keep poets, bores and other undesirable persons at bay. The position requires something of a diplomat as well as a fluent linguist. You would not do at all. Rickets (who stutters a trifle)—That's where you make a m-m-m-m mistake, equire! As sus-sus-son's a hub-bore cuo-cuo-cue in I'd hug-bug-beg-in to tell a l-l-long e-s-story, and before I'd gug-gug-get half through, bnb-hub-between w-hu-wh-what I'd sus-sus-say and w-wh-what I'd tut-try to sus-say, I'd have him cuc-cuo-completely tut-tled out. I ain't mnm-much of a dud-diplomat, perhaps, but as a l-l-linguist I'm a cuo-cuo-caution!

A GOOD USE OF ALLIGATORS.—Louisiana planters are finding that the slaughter of alligators has allowed muskrats, the great enemies of levees, to increase at an alarming rate. South Florida people have discovered that the rapid decrease of alligators in the peninsula has been accompanied by a corresponding increase in the moccasin, the most venomous of American snakes, and the alligator's choicest food. The saurian isn't pretty, but he is a friend of humanity, nevertheless.

TO CURL FEATHERS.—After the curl has come out of them by washing the feather or getting it damp, place a hot flatiron so that you can hold the feather just above it while curling. Take a hone or silver knife, and draw the fibers of the feather between the thumb and dull edge of the knife, taking not more than three fibers at a time, beginning at the point of the feather and curling one-half the other way. The hot iron makes the curl more durable.

APPLE BLOSSOMS IN WINTER.—Perhaps every one does not know how easily fresh apple blossoms can be had in winter. Get the ends of branches with plump flower buds and place them in water in a warm, sunny window and they will soon bloom. No doubt many other kinds of trees and shrubs will give as good satisfaction as the apple. Here, says *Vick's Magazine* for January, is an interesting field for experiment.

## YOUNG FOLKS' COLUMN.

### Grandma's Story.

"Just one more story, grandma, about when you were a little girl and lived in the woods," said Frank.

And grandma drew off her spectacles and shnt her book. She leaned her head back against her large easy-chair and shut her eyes, thinking.

"I remember as if it were only yesterday," she said, raising her head and looking at the children who had gathered around her. "I was only seven, and my baby brother wasn't a year old."

"I'm going to the spring-house," said mother, "and you must stay in the room and rock the baby if he wakes." So I took my knitting; for I had learned to knit, and was very proud of the stocking which was growing under my hand.

"It was a cold day late in the fall, and the doors were all shut. Baby slept, and I knitted for half an hour. As I got down from mother's great easy-chair, where I had been sitting, I thought I heard a strange noise outside. It wasn't Lion, for he had gone off with father to the mill. Something rubbed against the door and made the latch rattle. I felt afraid, and went to the door and fastened the bolt. I stood still, listening, with baby in my arms—he had stopped crying—and I could hear my heart beat, thump, thump, thump!

"All at once there came a short, cruel kind of a bark, and then a snap. A moment after, the window broke with a loud crash, and I saw the long head, open jaws and fierce eyes of a wolf glaring in upon me. An angel sent by our good Father in heaven must have told me in that instant of terror what to do. The wolf was climbing in through the small window, and to have lingered but a second or two would have been death. Moved as if by power not my own, and without thinking what was best to do, I ran, with baby held tightly in my arms, to the stairs that went up into the loft. Scarcely had my foot left the last step when the wolf was in the room below. With a savage growl, he sprang after me. As he did so, I let the door fall over the stairway; it struck him on the nose and knocked him back. A chest stood near, and something told me to pull this over the door. So I laid the baby down and dragged at the chest with all my strength. Just as I got one corner on the door, the wolf's head struck it and knocked it up a little.

"But before he could strike it again, I had the chest clear across. This would not have kept him back if I had not dragged another chest over the door and piled ever so many things on the top of these. How savagely he did growl and snarl! But I was safe.

"And now I grew frightened about mother. If she should come back from the spring-house the wolf would tear her to pieces. There was only one window or opening in the loft, and that did not look toward the spring-house, and so there was no way in which I could give her warning, or let her know, if she had seen the wolf, that we were safe.

"For a long time the wolf tried to get at us, but at last I could hear him going down the stairs. He moved about in the room below, knocked things about for ever so long, and then I heard him spring up to the window. At the same moment I heard my father's voice shouting not far off. Oh, how my heart did leap with happiness! Then came Lion's heavy bark, which grew excited, and soon I heard him tearing down the road in the wildest way. The wolf was still in the window. I could hear him struggling and breaking pieces of glass. Lion was almost upon him, when my father called him off in a stern command. All was silent now; but the silence was quickly broken by the crack of a rifle which sent a bullet into the wolf's head, killing him instantly.

"Father! father!" I cried from the loft window. He told me afterward that my voice came to him as from the dead. He ran around to that side of the house. Mother was with him, looking as white as a sheet. I saw them both clasp their hands together and lift their eyes in thankfulness to God.

"When I tried to pull the chests away, I could not move them an inch. In my great danger God had given me strength to drag them over the loft door; but now that the danger was past, my little hands were too weak to remove them. So father had to climb up by a ladder in the loft window and release baby and me from our place of refuge.

"Mother did not know anything of our danger until she had finished her work in the spring-house. Just as she came out, she saw the wolf's head at the window, and at the same moment father and Lion appeared in sight."—*Children's Hour.*

### Frisky and Her Rival.

[Written for the RURAL PRESS by R.]

Some time before our cat, Frisky, finally deserted her home, she had been away several days, and as our girl opened the front door one evening to take in the paper, lo and behold, there stood on the steps a black cat, the counterpart of our Frisky, with part of its tail cut off. So Emma exclaimed, "Oh, here is our cat, but somebody has cut off its tail." So the children all left their dinner and went to see pus-

sie and pity her. We coaxed her into the hall, but she seemed timid and had a scared look, and was so frightened that she ran upstairs and hid under one of the beds. So mamma was obliged to catch her and take her downstairs. Then she fed her and gave her a nice saucer of milk, for which she seemed to be very grateful, and settled down contented. All said, "Poor Frisky," and sympathized with her about the loss of her tail.

In the morning our oldest boy, Allan, heard a familiar "meow," and looking out of the window exclaimed, with great astonishment, "Holy Moses" (a favorite expression just then) "there's our Frisky with all its tail on!" Mamma laughed and said it was scarcely possible that the cat's tail contracted at night and elongated in the morning, and then remembered hearing cats quarreling in the night in the yard, and it was easy to understand that the bona fide Frisky had returned during the night and driven the intruder away. We had all been deceived, for she certainly bore a great resemblance to our cat, who soon afterward deserted us forever. Her place is now filled by a very pretty black and white "Topsy," as the children call her. Should anything remarkable occur during her residence with us, we will chronicle it for the readers of the PRESS.  
San Francisco, Feb. 27th.

## GOOD HEALTH.

INFLUENCE OF THE WIDTH OF STREETS ON PHTHISIS.—According to an American contemporary, remarks the London *Lancet*, Dr. Anders has been making certain inquiries in Philadelphia as to the influence of the width of streets on the mortality from phthisis, the wasting away of bodily tissue, and as the result of examining into the localization of 1590 deaths, he has arrived at the conclusion that the number of phthisis deaths is smaller in proportion to the population in wide streets than in narrow ones, and that in narrow streets the mortality is greatest where they are long, or where they form cul-de-sacs; in other words, complete movement of air about dwellings is a point of great importance in connection with the question of pulmonary phthisis. It is on this principle that all modern by-laws as to open space about houses are based, and it is as important to have wide, open spaces behind houses as well as in the streets in front, so as to secure a proper through current of air. There is, as a rule, not much difficulty in getting a reasonable width of street in the case of newly laid out areas for building, but there is a constant tendency to put an undue limit on the needed area behind dwelling-houses, although this is a matter of the first importance as regards the promotion of health and the prevention of a certain class of diseases. The observations from Philadelphia deserve the consideration of such sanitary authorities in this country as have not yet acquired proper control over the open spaces to be provided about new domestic buildings.

HOW VARIOUS NATIONS SLEEP.—In the tropics men sleep in hammocks or upon mats of grass. The East Indian rolls his light portable charpoy or mattress, which in the morning is again rolled together and carried away by him. The Japanese lie upon matting with a stiff, uncomfortable wooden neck-rest. The Chinese use low bedsteads, often elaborately carved, and supporting only mats or coverlets. A peculiarity of the German bed is its shortness; besides that, it frequently consists in part of a large down pillow or upper mattress, which spreads over the person and usually answers the purpose of all the other ordinary bed-clothing combined. In England the old four-posted bedstead is still the pride of the nation, but the iron or brass bedstead is fast becoming universal. The English beds are the largest beds in the world. The ancient Greeks and Romans had their beds supported on frames, but not flat like ours. The Egyptians had a couch of a peculiar shape, more like an old-fashioned easy-chair with hollow back and seat.

CURING COLDS.—A contemporary gives the following suggestions for curing colds: 1. Bathe the feet in hot water and drink a pint of hot lemonade. Then sponge with salt water and remain in a warm room. 2. Bathe the face in very hot water every five minutes for an hour. 3. Snuff up the nostrils hot salt water every three hours. 4. Inhale ammonia or menthol. 5. Take four hours' active exercise in the open air. A ten-grain dose of quinine will usually break a cold in the beginning. Anything that will set the blood actively in circulation will do it, whether it be drugs or the use of a backsaw. The following has been tried with very beneficial results for cold in the head: One teaspoonful of mustard dissolved in a tumblerful of cold water, and used as a gargle three times a day, will often effect a speedy cure. In more obstinate cases, equal parts of loaf sugar and pulverized alum, used as snuff, it is stated, will give instant relief.

THERE is to be a food and health exposition held in New York in March, its projectors wishing to teach the lesson that if people had proper food far less money would be needed for physicians and hospitals.

THE use of glycerine on a dry skin does not agree with it.

## DOMESTIC ECONOMY

### The Farmer's Version.

I hear the bell from the farmhouse—  
What a pleasure to note its glad peal  
And I turn from my toil in the corn-field  
To partake of my noonday meal.

Come bring to me some beefsteak  
Or a juicy and well-done roast—  
Some cabbage and turnip all steaming—  
Some coffee and well-buttered toast.

Not from the grand old kitchens,  
Not from the tables of wealth;  
For the consequent gout and dyspepsia  
Are known as despoilers of health.

Let the dinner be wholesome and hearty,  
A sweet smiling face at the tea;  
And I'll grant to the nabobs their splendor,  
For this is the dinner for me.

Saticoy, Cal.

H. F. C.

### Uses for Stale Bread.

[Written for the RURAL PRESS by F.]

I have been visiting a young friend who has just commenced housekeeping, and it was with regret I noticed the unintentional waste of stale bread and other nice scraps of which not enough remained to put on the table again, and which just a little extra work might have been utilized in making many palatable dishes. So, for the benefit of other inexperienced cooks who wish to practice economy, I insert the following reliable and palatable recipes, hoping they will meet with favor by those who try them:

For breakfast, a very quick and easy way of using the unbroken slices that may have become a little dry is to simply toast them and serve with coffee or ham and eggs, or the bread may be fried in slices in a little lard until nicely browned on either side, or it can be crumbled into a frying-pan containing a little hot lard, and after frying a few moments, turn over it a little boiling water, covering it well so as to steam it, salt and pepper, then dish.

Another way of making a dish for breakfast is to break and beat one or two eggs in a deep dish, adding a half-teaspoonful of sweet cream (or milk, if the cream is not to be had); now put in a little salt and black pepper, stir well and dip the pieces of bread into it, then fry a nice brown. When fried in a little bacon or ham grease, the flavor is improved.

Steamed bread is very nice for breakfast. Any one who has a steamer can steam it in a very short time. Do not steam it too long, as it will become clammy or too wet.

When a whole loaf becomes too dry, wet or rather dip it quickly into cold water, then put in a quick oven for a few minutes, and it will be almost as good as when fresh baked.

Pieces of stale bread, laid in a bake-pan and allowed to remain in a slow oven until dried and browned (then tied up in a sack until needed), are very nice to use in soup, putting it in just before the soup is dished, in order that it may become soaked a little.

To make a dish to be eaten with a roast of pork, beef or mutton, place the stale bread in a pan, cover it with sweet milk, add one or two eggs (well beaten) and an onion chopped fine, some salt, pepper and sage; mix well and bake until browned. The pan it is baked in must be well greased; also spread a little butter or lard over the top before baking.

A nice pudding may be made by taking two or three eggs, and beat well; then add to two pints of sweet milk and a half-cup of granulated sugar a little nutmeg and half a spoon of extract of lemon, and a piece of butter the size of a walnut; then put in the bread and bake until thickened. A half cup of dried currants and the same quantity of raisins improve it very much. Sweet cream and sugar make a nice sauce for this pudding.

Unbroken slices make nice toast. For cream toast, place a slice of toasted bread in a deep dish, then cover with sweet cream and a tablespoonful (even) of white sugar; then another slice of toast, adding cream and sugar as before until the dish is full. Buttered toast is made the same way, with the exception of butter being used instead of cream.

Celery and mushroom toast are often very appetizing to invalids, and are made by placing stewed celery or mushrooms and sweet milk or cream, salt and pepper between each layer of toasted bread. A wholesome and good dish for the children's supper is to take a couple of pints of sweet milk, seasoned with a little salt and black pepper and a small piece of butter; allow to come to a boil, then add the bread and let simmer a moment before dishing. Some children of older growth are also very fond of this dish.

Had I the time I could perhaps tell of a dozen more ways of using this oftentimes-deplored article, "stale bread," and perhaps may some time send some more.

Hollister.

A CREAM DRESSING FOR SALADS.—Beat up two eggs with four tablespoonfuls of good cream, two tablespoonfuls of melted butter, small teaspoonful of salt, same of mustard, and half of black pepper and a small teaspoon of beet vinegar. Beat and mix all these up well together; put it into a saucepan and stir over the fire till it thickens. Do not let it boil or the dressing will curdle. Let it cool, when it is ready for use.





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W. B. EWER.

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(NEW THIS ISSUE.)

Orchard and Vineyard Tools—Truman, Hooker & Co.

Dairy Machinery—G. G. Wickson & Co.

Sale of Trotting Stock—Killy & Co.

Combined Harvesters—Holt Bros.

Spray Pumps—Bean Spray Pump Co., Los Gatos.

Cravon Portraits—E. W. Melvin, Sacramento.

Drifted Snow Flour—Central Milling Co.

Holstein Cattle—J. A. Scholfield, Hollister.

Sheep Dip—Cotton, Bell & Co.

Thoroughbred Jacks—L. U. Shilpee, Stockton.

Clydesdale Stallions and Mares—H. P. Mohr, Mount Eden.

Farmers' Agent—J. G. H. Lampadius.

Threshing Outfit for Sale—Mrs. A. Hook.

Timber Land—Story & Cutting.

See Advertising Columns.

## The Week.

Continued showers have convinced people that the weather is safe for the present at least, and attention can be given unreservedly to public affairs of an engrossing character.

All that is mortal of Senator Hearst seek repose in the soil of the State which honors him, while the Legislature at Sacramento is eagerly engaged in the effort to fill his vacant seat. Seven days of discussion and three of halloping bring us to Wednesday evening, with no indication of in whose hands the credentials will fall.

Early talk was of corruption of a most outrageous kind, but even so adventurous a thing as the "sack" seems for the time being at least to have been frightened away. May it never summon courage to appear. Amid

the throng of politicians, the manly form of Senator Johnston appears, and he scored five votes on Wednesday. In all, a round dozen of candidates were voted for, and as but one can succeed, the contest is apparently only beginning.

## University Equipment and Farmers' Institutes.

According to a report presented and adopted at the meeting of the Regents of the University, on Tuesday of this week, preliminary steps have been taken toward the holding of Farmers' Institutes in this State under the auspices of the University. We publish this report in full upon another page of this issue, in order that our readers may understand the features of the action taken.

It will be remembered that the conditions under which the new grant of government funds were made were that the money should be expended "for the more complete endowment and maintenance of colleges for the benefit of agriculture and the mechanic arts now established, or which may be hereafter established, in accordance with an Act of Congress approved July 2, 1862."

The law also specifies that the funds shall "be applied only to instruction in agriculture, the mechanic arts, the English language, and the various branches of mathematical, physical, natural and economic sciences, with special reference to their applications in the industries of life, and to the facilities for such instruction."

The report to which we allude shows that the Regents Committee took account of the needs of the several branches of the University thus specified in the law, and have apportioned the funds now available among them.

The better equipment of the College of Agriculture is somewhat explicitly stated in the Regent's report. The provision for the holding of Farmers' Institutes will suffice to make a trial of these institutions in California, and to demonstrate the field there may be for them and their usefulness. Upon experience thus gained it will be possible to extend the work intelligently if the interest warrants it. Probably there will be an announcement made concerning the holding of Institutes after due consultation on the subject.

The importance of the assistance provided for Prof. Hilgard by the provisions just made by the Regents is very great. In spite of the most assiduous application on his part, even to the utmost limits of his physical strength, he has not been able to keep abreast of the work, both in investigation and report, which is constantly crowding upon him. The new assistant in agricultural geology and chemistry, Dr. R. H. Loughridge, knows California from residence and investigation here, and brings also the resources of long observation and study in other fields. He can relieve Prof. Hilgard of much of the work on soils, etc., which is now much in arrears.

The new arrangements will also enable the Experiment Station to take up another important line of work which has only been deferred because of lack of time, and that is the investigation of California food grains, forage plants, millfeeds, etc., in order that their chemical constituents may be definitely determined and our dairy and stockmen may be assisted to prepare rations for their animals with intelligent understanding of the materials which are here available. There has been demand for this work for some time, and it will be very satisfactory to the authorities at the station to be able to enter upon it.

The arrangements made for the other technical branches of the University as mentioned in the Regents' report to which we allude are understood to be provisions for which the work stands in imperative need. The report also hints at other equipments to be secured in the future, among which is a new plant-house which is greatly needed, as there is nothing at Berkeley but the little houses erected in 1874 and which could have been designed only to serve a temporary purpose, as they would not be considered adequate or respectable even for a village florist's establishment.

THE SOUTHERN CITRUS FAIR.—As we go to press, the Citrus Fair is in full and fine progress in Los Angeles. The RURAL PRESS is duly represented, and next week we expect to have interesting descriptions of the important event.

## Ramie Culture in Sonoma.

In company with several other parties, a representative of the RURAL PRESS visited the city of Sonoma on Saturday, the 7th instant, to attend a special meeting of the farmers of that neighborhood called to meet representatives of an organization in this city, which has for its object the encouragement of ramie culture in California. This company has secured the control of what is considered a very superior machine for "decorticating" or putting into marketable shape the fiber obtainable from the ramie plant. The proposition is to place one of these machines in various central localities in the immediate vicinity of which say from 50 to 100 or more acres of ramie will be planted—an acreage sufficient to make such an expenditure profitable.

The ramie, as cut in the field, is of a very bulky nature—too much so for economical transportation. Hence it is necessary that it should be put through a machine for reducing it to fiber, representing but a small portion of its original bulk, in which condition it can be readily packed or baled by a bay-press and transported to market.

As stated in our last issue, present indications promise that this plant will soon become one of California's great industries. Experiments have shown that its culture is peculiarly adapted to the soil and climate of all our great interior valleys. The cultivation of the ramie has already become a great industry in France, where it was first introduced largely to take the place of the diseased vines. The fiber also forms quite a large staple for French manufacturing industries, being mixed with cotton, wool and silk. Many of what are here considered our best silk goods are largely composed of ramie. Some 30 large manufacturing establishments are engaged in that class of manufacture in France.

In England, where this manufacture obtained its first foothold outside of the Indies, it forms a much larger share of manufacturing industry, nearly or quite double that which has thus far obtained in France.

The climate of England is too moist for its successful culture, hence the English manufacturers are obliged to look to various points in Asia and the neighboring islands for the raw material, many thousands of tons of which are annually imported.

It is to the growth of this fiber to which California should now more especially turn its attention. The superiority of our climate and the facility with which machinery may be introduced and operated here is more than an offset for the cheap labor of the Indies. It is much more easily raised than cotton and far more profitable. The demand for it is reported to be greater than the supply and rapidly increasing. Samples of the fiber prepared in this city have been sent to fiber buyers in England, France, Germany and various Eastern States, where very remunerative bids for it have been made in any quantity. For the present, however, the Oakland cotton factory offers to purchase all which may be offered, as successful experiments in working it have been made there.

Quite a number of farmers about Sonoma are making arrangements to plant ramie this season, among whom Capt. H. E. Boyes is taking a very active interest, not only for himself but also in interesting his neighbors to join him in the enterprise. Mr. C. T. Wilkinson, of the Blind Asylum at Berkeley, who owns a ranch near Capt. Boyes, is also much interested in introducing this new enterprise. Both these gentlemen were present at the meeting which was held in the Agricultural Hall on the 7th inst. and spoke in favor of the enterprise. The meeting was also addressed by Mr. W. H. Murray, of the *Journal of Commerce* of this city, Mr. Arnold Becker of Berkeley, Mr. W. B. Ewer of the RURAL PRESS and several others. An encouraging letter was also read from Prof. E. W. Hilgard, of the State University, who had expected to be present at the meeting. Our trip to Sonoma was a most pleasant and interesting one, and we propose to make further reference to it in a future issue.

BRANDING OLIVE OIL.—The Governor has signed Senator Heacock's bill requiring every manufacturer or dealer of olive oil to place upon every bottle or can filled with olive oil and exposed or offered for sale as such a label stating clearly his name and address and the

place of manufacture, and to file with the State Board of Horticulture a copy of the label, accompanied by an affidavit that the oil is pure.

## Silver Legislation.

Congress adjourned on Wednesday of last week without further legislation on silver. There is no denying that bimetallics were sanguine of passing a free-coinage bill up to the time when ex-President Cleveland wrote his short but pointed letter taking grounds against unlimited coinage of silver by this country. With the ex-President's stand against unlimited coinage of silver, under the belief that the time is not ripe for such a measure, leading bimetallics evidently did not make much of an effort to promote further legislation by this Congress, well knowing that the next Congress is pledged to free coinage, and if President Harrison vetoes a free-coinage bill they will have a sufficient majority in both houses to pass the bill over his head. Indeed, several leading bimetallic papers at the East were outspoken in advising that legislation be not forced this session, claiming that with the Grange, Farmers' Alliance and Knights of Labor working in harmony to secure the free coinage of silver, large numbers are being proselytized, which will bring about the early consummation of their efforts in that direction.

Events within the past two months have, outside of Congressional legislation, put an entirely different phase on the silver situation. The present output of the mines in this country is claimed by well-informed parties to be not more than, if as much as, the Government's monthly purchases, and with our product being cared for by the Government, foreign buyers will soon absorb the available surplus of the world, besides taking the output of other silver-producing countries. Already free buying by India, China and Japan is setting in, while two other nations are quietly securing round parcels. It is said, in well-informed financial circles, that foreign purchases this spring will be unusually heavy and in consequence prices will steadily advance.

In this city, the first time since May, 1890, foreign buyers are in the market for silver bullion. India and China have agents here securing all they can at reasonable figures—even paying an advance over Mint quotations. It is also said that there is a speculative inquiry for silver coming from parties who believe in much higher prices.

Bearing on the present status of the market, we give the following from the New York *Iron Age* of Feb. 26th:

The silver pool in New York is reported to have lost heavily from the collapse of the Anti-Free Coinage bill in Congress. At the outset of the scheme silver jumped up rapidly until it was quoted at \$1.21 1/2 per ounce, and the metal was expected to rise to \$1.29, equal to a dollar in gold. At length silver was stored in New York to the extent of about 10,000,000 ounces, including 7,333,000 in the vaults of the Mercantile Safe Deposit Co. It is said that the average cost to the speculators has been about \$1.10 an ounce. To prevent importations, they have been compelled to keep the Government supplied, and their sales have realized, on an average, only about \$1.05 an ounce. They are, therefore, out five cents an ounce on their transactions, or say \$2,500,000, including storage charges and interest.

The above indicates that the big bugaboo of large holdings at the East has dwindled, under selling, to very small proportions.

CORK WORMS.—Investigation in France proves the existence of two or three types of moths in wine cellars. The grubs feed on the fungoid growth that forms on the wine-vats and moldy corks. The insect bores and forms galleries in the cork nearest to the glass, and through the holes thus formed, air gains access to the wine, spoiling it. In corroboration of the above, it has been remarked that one of the chief difficulties in bottling wines in California has been in obtaining a supply of perfect corks. About 25 per cent of corks, after examination for fitness, are rejected. It is often found that wine after being bottled oozes through the corks. Various methods have been resorted to, to stop the inroads of these grubs. After soaking the corks in hot water and then in brandy, they are dried, and when they are put into the bottles the tops are coated with a layer of paraffine wax previous to sealing them with ordinary wax. Neither the grubs nor the insects feed upon the wine, but simply use the cork as a place to deposit their eggs, and the coating may possibly prevent their entrance.



## ARBORICULTURE.

## Notes on the Eucalyptus.

(Written for the RURAL PRESS.)

The prediction was recently made by Dr. Mayr, an eminent German forester sent here by his Government to study our forests, that "In 50 years it will be inconceivable that California, the beautiful fruit garden of the Union, was once treeless. Amid magnificent forests of Australian eucalyptus and acacias, the visitor will be inclined to doubt that he is really in America."

This may be over-sanguine with regard to time, but these two genera contain many remarkable trees, some of which are certain to have a great influence on the future tree-planting of the State.

As this is now the planting season, your readers may perhaps be interested in some extracts from a Memoir\* upon the different species of eucalypts grown in Europe by the learned and distinguished botanist and acclimatizer, M. Chas. Naudin, director of the Gardens of the Villa Thuret near Nice, where the French Government has the largest collection of dry, country plants in the world.

M. Naudin speaks of the difficulty of determining many of the species on account of their resemblance to one another, especially after they have reached maturity and have dropped the leaves of their youthful state. In the same species also there is often much variation. A large part of the Memoir is therefore devoted to rules and descriptions for the determination of species of which over one hundred are at present known, a number of which gives the intending planter much room for choice according to the purposes for which the trees are destined.

The greater part are essentially forest trees, and their principal interest the production of timber of all dimensions, but their value for fuel is also great, and should be appreciated in those countries where the absence and dearth of coal are an obstacle to many industries and to the use of steam engines. Vast plantations of eucalypts could, in a measure, remedy this.

Two species of eucalypts, says M. Naudin, are distinguished above all others for the rapidity with which they form trees of the largest size; these are the *E. globulus* and *E. Mulleri*.

Others, without growing so fast, are still remarkable for the short time in which they may be utilized by carpenters, joiners, and wheelwrights, and as railroad ties and telegraph poles. These are among others—*E. diversicolor*, *marginata*, *corynocalyx*, *crebra*, *botryoides*, *robusta*, *leucocylon*, *Gunnii*, *viminialis*, *rufidis*, *rostrata*, *gomphocephala*, *cornuta*, *amplifolia*, *tereticornis*, *polyanthema*.

There are other products, secondary, it is true, to be obtained from the eucalypts.

All the species contain in their wood in different degrees kino resin which is extracted by distillation. Their barks are more or less charged with tannin, and in certain species (*E. leucocylon* and *viminialis*) the proportion is large enough to admit of their being used to advantage in the tanning of hides. The leaves have long been distilled to obtain antiseptic oils which have numerous uses in medicine. One other use of the eucalypts, even of those which retain the form of small trees or shrubs, is to furnish, by their abundant flowers, provision for the nurture of bees which extract therefrom a honey endowed, perhaps, with special hygienic properties.

From an esthetic point of view, continues M. Naudin, one may say that all the eucalypts of large size are decorative when developed under good conditions of soil and climate. Their elegant port and rounded or pyramidal head, according to the species, their flowers white or sometimes purple, their foliage so varied in tint, make them, in the opinion of those who know them, handsome ornaments for park, avenue and landscape. Those most to be recommended in this respect are *E. botryoides*, *diversicolor*, *polyanthema*, *amygdalina*, *robusta*, *calophylla*, *resinifera*, *urnigera*, *corynocalyx*.

The soil which in general seems best suited to the different species is sandy or granitic. What is indispensable to them is sunlight and a free circulation of air, two conditions necessitated by the great evaporation of water of which their leaves are the seat. It is known that the eucalypts exhale a considerable quantity of water taken from the soil which they drain in this way. Some of them, particularly those inhabiting very arid regions, lay up a store of water in their roots and in the lower part of the trunk, which is often swollen into a sort of bulb where they keep a sufficient supply to preserve them through long periods of drouth. This water in the root is sometimes abundant enough to refresh the Australian natives when suffering from thirst.

I might add that in my own collection in Santa Barbara a year-old specimen of *E. polyanthema*, less than an inch in diameter, has such a swelling just below the surface of the soil as large as a teacup.

It would be a mistake, says M. Naudin, to count upon reforesting with the aid of the giant eucalypts, arid and rocky hills almost denuded

of vegetable soil, and quickly dried by the sun, though some of the scrubby species, such as those which form the "mallee scrub" of Australia, might perhaps be made to succeed.

The proper time for cutting these trees should be when vegetation is suspended either by the low temperature of winter in some species, or in others by the dry season. Many interesting notes regarding the different varieties are given.

Of *E. globulus*, he says it was introduced into Algiers in 1854 by Ramel, at the instigation of Baron von Muller, who sent the first seeds. Its marvelous rapidity of growth made it quickly popular and it was soon cultivated in the south of France, where it is now common. Cut off at the base, *E. globulus* sprouts vigorously and the leaves of the young shoots take the youthful form and yield in the greatest abundance the eucalyptus oil now made in France. This oil has numerous uses as an antiseptic and is beginning to be employed for subcutaneous injections in various diseases, in rheumatism, in neuralgia, and even in pulmonary consumption. With respect to hardiness, *E. globulus* may be expected to withstand the climate wherever the orange can be grown out of doors.

A hardier species is *E. viminalis*, which endures a passing temperature of 12° or 14° Fah. and makes a good avenue tree 100 feet in height and of very rapid growth.

*E. urnigera* is the hardiest species yet known. It flowers and fruits at Brest, and what is more surprising, even in Scotland. In the Whittingham Gardens near Edinburgh, there is a large specimen (sometimes wrongly described as *E. viminalis*) which however has often been injured by frost, notably in the winter of 1860, when it was frozen to the level of the ground. It put forth a new stem and is to-day a tree 60 feet high.

Of *E. rostrata*, M. Naudin says it is tending to supplant *E. globulus* in Algeria on account of the superiority of its wood, which is of straighter fiber and easier to work, not liable to check, and great durability under ground and in sea-water, where it is not subject to attack by the teredo. In California there is much difficulty in getting trees or seed of this species true to name. I have no less than three distinct kinds all obtained from dealers as "red-gum," and all quite different from specimens obtained from the State Board of Forestry as the *E. rostrata* of Von Muller.

*E. marginata* is also famed for resistance to the teredo, impregnated as it is with kino resin and valuable wherever the wood is to be exposed to the action of sea-water. In Southwest Australia it forms vast forests and is the subject of considerable export. Some of the streets of London have been paved with this wood, an employment, says our author, which should be extended to other species.

*E. amygdalina* and *diversicolor* are referred to as making trees of the largest size, reaching, according to Von Muller, a height of 400 feet, taller, perhaps, than our sequoias, though not so great in diameter.

*E. corynocalyx* is a handsome tree from Southwest Australia, attaining a height of 125 feet and a diameter of four or five feet. It seems to delight in the most arid locations and to resist the most prolonged drouth, and appears indifferent to the nature of the soil. Baron Von Muller has repeatedly advised its use in reforesting parts of the Algerian Sahara. It grows rapidly and its wood is remarkable for its density and durability underground and for its adaptability to carpenter's use. In Santa Barbara this tree has done well in dry, stony places, where cultivation is impossible, as has also the following:

*E. polyanthema*, another species of great drouth, resisting power and of much beauty. The wood is perhaps denser and harder than that of any other eucalypt, and is highly prized by carpenters and especially by joiners.

*E. citriodora* has been much planted in Southern California on account of the pleasant odor of its leaves when the tree is young. M. Naudin praises it for its elegant shape, abundant flowers and excellent wood. It is the only eucalypt which I have observed in Santa Barbara to be troubled by any disease, its leaves being often spotted with a reddish fungus resembling that which infests the leaves of the almond in this locality.

From Prof. Malden of Sydney I have received a classification of eucalypti according to the humidity of the soil in which they are to be planted, which may be of use to some.

For moist situations, *E. rostrata*, *robusta*, *tereticornis*, *saligna*, *botryoides*.

For drier land, *E. maculata* and *longifolia*.

For high and very dry situations in poor soil, *E. Siberiana*, *paniculata*, *Maideni* and *corynocalyx*.

Santa Barbara.

SNOW WORMS.—A puzzling phenomenon has been noticed frequently in some parts of Valley Bend District, Randolph county, Va., this winter. The crust of the snow has been covered two or three times with worms, resembling the ordinary earthworms. Where they come from, unless they fall with the snow, is inexplicable. The snow is two feet deep, and the crust is too strong for them to have come up out of the ground. A square foot of snow can scarcely be found some days without a dozen of these worms on it.

HENS worth \$2000 apiece attracted corksightseers at a recent poultry show in New York.

## FLORIST AND GARDENER.

## California Plants for California Gardens.

EDITORS PRESS:—Some of these days the thought that has occurred to a few, that the proper plants to grow in any given place are those native to it, may perhaps spread widely until it finally reaches popular acceptances. Heretofore it has been the custom in most places to fill the garden with exotics—in fact anything not indigenous to the locality has always been considered the most correct thing to give space to and grow if possible. The more care and labor required to make the said vegetation succeed, the nearer right has been thought the choice made.

To speak squarely and to the point, all this is a mistake. The proper plants for California gardens are California plants. Have we any lack of attractive things? All the rest of the world answers that question with a most emphatic no. Look ye at the foothills! Behold the sandy fields by the seaside and the sheets of gold, of pale yellow and blues and most lovely harmonious grays that cover them over. Could anything be finer? Is anything more brilliant ever seen in gayest garden or the most extravagant roadside park-border elsewhere?

We have had but a single view as yet—the show is varied with every move we make in foothill land northward or southward or eastward over the flanks of two ranges.

What we need to do is simply to bring together the splendid collection Nature offers us and that is now so widely scattered over the State. These things she has planted where they are likeliest to succeed, in stony and sandy soils upon which the grasses and civilized weeds that love rank feed are not disposed to intrude and choke them out. We will not, we cannot, bring these all into one garden, but we may into any one town or county.

Each garden could show a different group. The annuals I would place in the wide depressed gutters at street sides, but the bulbous plants and more striking perennials in the borders against and around the house. The shade-lovers, that is to say, the violets, trilliums, the actaeas, the thalictrums, the anemones, the tritillaries, and all such modest things in size and dress, not to forget the ferns, would find room out of the sun's way, on the house's north side.

If need be, and very properly, as I think, the town trustees could furnish the seed for the gutter plantation, and the town marshal could vary his usual round of duties by filling a gardener's plot for awhile. Very agreeable recreation, one would think, for such an official, and a kind of recreation, only in largest measure, that we hope may be in store for all such people in a future not very distant. The gray-garbed hoarhound that we have given so much space to from the very beginning of things here, will, perhaps, feel out of place amid so much gayety and move to other and distant quarters.

The true California flower season lasts from March to mid-June, inclusive, though afterward here and there a bright spot lingers where some perennial possessed of deep-feeding roots and a longer or later flowering period has established itself. These are candidates for the garden I have in mind, its fixed features.

The practice of irrigating garden ground in summer should be abandoned, not only because unhealthy, as all confess it to be, but for the added reason that it will give relief from, frequently, an unpleasant bit of work and freedom as well, to betake oneself to other scenes at day's end, if desired. Our new scheme for the garden makes this *shelving of the hose* not only a possibility but a desirability, as the plants we are about to adopt know only a continuous dry summer, and, furthermore, have learned by long practice where to find all the water they need.

If the householder craves exercise, he can dig with the little three-tined fork—nice, pleasant work, too—and this will not only not harm his pets but will greatly help appearances. It would be well to say, perhaps, that there are many exotics whose proper season to be in slight closely corresponds with that of our California plants, as, for instance, many of the perennials called Dutch bulbs, such as crocuses, tritillaries, ixias, babianas, freesias, the narcissus, the tulips, winter aconite, some of the anemones, the showier buttercups and others. The two last named are not bulbous-rooted, but go with that class as florist's stock. These Dutch bulbs require no care and no handling after once placed in the ground. Indeed, they especially desire not to be touched—not oftener, at least, than once every third or fourth year—and ever thereafter with each recurring season they appear to slight the pleasant of pleasant things. These are really late winter and early spring bloomers, many disappearing before the native exhibition begins; but for them, as for our own flowers, Nature furnishes the needed moisture.

It is to be hoped Senator Stanford will bring together within the ample grounds of the University at Palo Alto the entire flora of California, so that we may all see just what may be done in the way of furnishing well a series of gardens with native plants only.

Santa Clara.

## Heteromeles Arbutifolia.

EDITORS PRESS:—A. L. Lance, your Gonzales correspondent, asks if any one has cultivated our California Holly or Toyon. I will answer yes. In my yard there is a handsome cultivated specimen, not yet to fruiting size, however. It is in a very dry place and has had little care, but holds its own well. With good care there would be little difficulty in growing this shrub, and it will stand much dryness. It ought to find its way into many California yards.

CARL PURDY.

Ukiah.

## THE BOTANIST.

## Monterey County Blossoms.

EDITORS PRESS:—On Feb. 21st, wild turnip was in blossom near Salinas, and an occasional "Spring Beauty" (*Calandrinia Menziesii*), near Chualar; also a few *Sidalcea humilis* in the same vicinity.

On the 23d, in a pasture-field just south of Soledad, a profusion of "Cream Cups" (*Platystemon Californica*), was in blossom. A few beautiful clusters of "Baby Eyes" (*Nemophila insignis*) bloomed by the roadside, and Pepper grass, Johnny-jump-ups, Forget-me-nots, Spring Beauties and an umbelliferous plant were plentiful.

Along the road leading to the Palisades a shrubby Lupin was in full blossom, and near by, in a magnificent cluster of *Cheiranthus asper* (Wallflower) was an annual Lupin, just opening.

A short turn in the road exposed a cluster of *Amsinckia spectabilis*, one of our "Fire Weeds," set in a border of white Forget-me-nots, and supporting several festoons of "Big Root," *Megarrhiza Californica*, in blossom. Why would not this plant make a good vine for summer shade, or covering unsightly objects? Its immense perennial roots give the vines a large and rapid growth, and its flowers and fruit are odd enough to make it more desirable than many so-called novelties.

Feb. 28th, near Salinas, a large-flowered species of *Zygadenus* was in blossom, and just across the road, on a low embankment thrown up for a fence, a row, many rods long, of *Oenothera ovata*, yellow primrose, was blossoming profusely, forming a beautiful golden edging for the entire distance. It was very suggestive, and for any but the more moist sections of our State, this plant would probably prove far more acceptable than the Irish or other European primroses. *Fritillaria biflora* and *F. liliacea* were in blossom in the heavy soil of the Gabilan mountains north of Salinas, and *Peony Brownii* and *Oenothera thyrsiflora*, California lilac, on the higher sandy hills. *Sanicula* (*Sanicula laciniata*) was plentiful in the same vicinity.

Near Natividad, on the old Los Angeles stage-road, a number of a dwarf, small-flowered *Zygadenus* were in blossom.

At San Miguel, March 1st, *Claytonia perfoliata*, commonly called California lettuce, was in blossom, and on the 4th at Gonzales.

## Correspondence.

Notes from San Miguel, San Luis Obispo county, mention Yellow Violets, Baby Eyes and Spring Beauties on the 21st.

Feb. 23d, Bert L. Hickok of Tancred colony, Yolo county, sends a "Lousewort" (*Pedicularis densiflora*), and a "Shooting Star" (*Doctea theon media*). He asks, what is the best botany I can get to study?

As far as his own benefit is concerned, let him examine the outlines, texture, arrangement and stems of the leaves of the plants around him—their location, the different organs of the flowers, the different fruits, seed-vessels, seeds, etc., and compare them; in short, learn to know them.

Any elementary work will give all the terms required till the observation has been sufficiently trained, and then we have "Rattan's Flora of California," which would be a very material aid in determining a large number of species. If I am not mistaken, it also has an elementary preface.

Bert Hickok of Caspar Valley, Yolo Co., under date of March 2d, sends California poppy, *Brodiaea capitata*, an annual lupine, forget-me-nots, an umbelliferous plant, and a buttercup. The species of the latter four cannot be determined without more perfect specimens including fruit, seeds, etc.

Dr. L. D. Morse of San Mateo writes that the Toyon does well as a hedge plant in that vicinity and stands trimming. He also mentions *prunus ilicifolia* (holly-leaved wild plum) as more useful for the same purpose. He also thinks *penstemon centranthifolius*, our flame-colored penstemon, worthy of cultivation. It surely is, as is also *P. heterophyllus*, with its showy rose-purple flowers. More of these two later.

Let me again remark that postage on pressed botanical specimens is but one cent for 2 ounces, and by numbering specimens and inclosing an addressed card the sender can have the names of specimens that can be identified returned at once. The writer would like to hear from the foothill regions of the Sierras and the Coast mountains.

A. L. LANCE.

Box 90, Gonzales, Monterey Co.



# AGRICULTURAL NOTES.

## CALIFORNIA.

### Butte.

**BUG INSPECTOR INTERVIEWED.**—Chico *Enterprise*, March 5: E. B. Stuckey having been appointed bug inspector by the Board of Supervisors for this section, is now at work inspecting all the trees in this vicinity. He informs us that there are yet plenty of hogs on the trees in the yards of Chico, but not near so many as there were two years ago. The San Jose scale is the only bug doing material damage. The red spider, which was so plentiful here years ago, has entirely disappeared.

### El Dorado.

**TO LICENSE SHEEP AND GOATS.**—El Dorado *Republican*, March 5: The ordinance exacting the payment of a license tax on sheep and goats was adopted by a unanimous vote of the Board of Supervisors this week. It requires the payment of \$5 per hundred animals from every person engaged in the business of "raising, grazing, herding, or pasturing sheep or goats, or sheep and goats" in this county. The money will be collected by the License Tax Collector, who will retain ten per cent for collecting and pay the remainder into the General Road Fund. The intent of the ordinance is to collect revenue from non-residents who pasture goats and sheep in the county and pay their taxes outside of it, thus deriving benefit from and also injuring our roads and pasturage without paying anything toward county revenue. In order to reach this class of stock-owners, however, the license was levied upon all, as no legal discrimination can be made.

### Humboldt.

**TREE PLANTING BOOM IN HUMBOLDT.**—Roberville *Herald*, March 4: The fruit-growing boom has commenced in earnest in this valley, and we are glad to know it. It is destined to be an important factor in connection with our material interests a few years hence. People generally lose sight of the idea that "one tree" or an orchard, in growth, will be a benefit to whoever may succeed him, and the thanks of their successors in life will fall thick and fast. Throughout Southern Humboldt more trees are being planted this year than in any previous one. The experience of cautious fruit-growers and packers within the last two or three years is becoming infectious. Darling the present season thousands of trees will be planted where no one ever thought of planting them before.

### Los Angeles.

**ORANGE YIELD AND PRICES AT RIVERA.**—L. A. *Evening Express*, March 7: E. A. Coffman of the Rauchito ranch says the growers near Rivera are picking oranges now as rapidly as possible and they are shipping as fast as they pick. The winds do not shake down any fruit to speak of, and the trees are laden with as fine fruit as they ever bore. This season is an "on" as contradistinguished from an "off" season, a season when the bearing is plentiful. The market is ready and prices are good. Buyers are paying \$1.25 per box, which is a big price for seedling oranges. The Rauchito ranch is 17 acres, all of oranges, and the yield will be 10,000 boxes, which are sold for \$12,500. The oldest seedling trees will yield from 600 to 800 boxes to the acre. George W. Maxon of that place sold from 3½ acres for \$2500; he sold the oranges on the trees, the buyer doing his own picking. Garrett Wich sold \$865 worth of oranges off of 103 trees that were not full grown.

**CALIFORNIA LEADS FLORIDA IN EARLY VEGETABLES.**—L. A. *Express*, March 7: S. A. Butler, of the Wells-Fargo Company, says that there are many calls from the East for California tomatoes. Strawberry shipments will commence in about ten days. There have been a great many green peas shipped lately; the demand in Eastern cities is active and prices are good, \$3.50 being paid for a 20-pound box of peas. Mr. Butler says he has positive advice that California vegetables rank ahead of those from Florida. This he considers important, as Florida is the only competitor California has in the Eastern vegetable market. Mr. Wisendanger, a farmer, has just tried the experiment of sending out samples of California-raised early radishes to Eastern points in hope of orders. He believes there will be big money in this. Mr. Butler believes that the success of shipping winter vegetables East via express has been satisfactorily demonstrated during the season, and he expects to sell a large amount of winter-grown vegetables shipped East next season.

**FLORIDA SCALE.**—L. A. *Herald*, March 7: Yesterday, Bug Inspectors Kercheval and Weiss brought to the Herald office a few leaves of an orange tree and an orange that were badly infested with the Florida purple oyster-shell scale. The pest looked very healthy on both leaves and fruit, which upsets a theory advanced by some that the Florida scales all perish in our climate. This tree is found in an orchard south of the city. It came from Riverside, where it was imported from Florida four years ago. It has been in the place where it now stands for two years.

**SOUTHERN PART OF THE STATE WILL BE BENEFITED BY THE STORM.**—Alhambra *Review*: The severe storm which commenced on Saturday morning and continued until Tuesday noon, seems to have been quite general throughout the State. Here in the south the storm has been one of the heaviest for several years.

San Bernardino county, as usual, on account of its exposed position, comes in for a full share of damages. On Tuesday there was not a bridge left over the Santa Ana river except that of the Santa Fe between Riverside and Redlands; many houses and barns were swept away and all the rivers were reported higher than for many years before. Los Angeles county has suffered less, and the practical loss as compared with that of last year is not great. The Alhambra valley has been especially fortunate. The gain which the storm has brought to the south is almost immeasurable. A bounteous harvest is assured, and prosperity is certainly ours for another year. Plowing will be prosecuted in earnest, and a larger acreage will be put under cultivation than ever before. Prospects are very bright, and comfort and plenty seem to have taken up their abode with us.

### Mendocino.

**HOP-KILN INCUBATOR.**—Ukiah *Dispatch*: D. G. Pitner has now 6000 eggs hatching in his hop-kiln, which he is using as an immense incubator. He is adding more eggs every day, and expects to have 8000 in before the kiln is full. Everything has gone on nicely so far, and the indications are that this novel hatching project will be a success.

### Nevada.

**SEVENTEENTH AGRICULTURAL ASSOCIATION FAIR.**—Grass Valley *Tidings*, March 6: The Board of Directors of the Seventeenth Agricultural Association met at Nevada City Saturday, for the election of officers for the ensuing year and the transaction of general business. After the reading and approval of the minutes of the last regular and special meetings, the election of officers was held and the following chosen: President, M. L. Marsh; Vice-President, John F. Kidder; Treasurer, E. M. Preston; Secretary, I. J. Rolfe. On motion it was resolved to hold the annual fair commencing on Tuesday, Sept. 1st, and continuing for five days, on the exhibition grounds at Glenbrook Park and in the Pavilion at Grass Valley. Directors Fletcher, Granger and Jacobs were appointed a committee to arrange a speed program, to report at a special meeting to be called by the president. The president was authorized to have such repairs and improvements made at Glenbrook Park as might be found necessary, and make arrangements for having the racetrack put in order previous to the holding of the fair.

### Plumas.

**WINTER IN THE MOUNTAINS.**—EDITORS PRESS: Our winter in this mountain region began with the first days of December. A night of rain followed by a day of rapidly falling snow caused us to remember with apprehension the terrible winter of a year ago. We do not usually have much snow here till Christmas or after; some seasons very little during the winter months. The December storm being one of unusual severity for the season, we naturally feared as to what the elements would have in store for us. The snow, however, melted and settled until the teams from the mining towns, which were from home when the storm came, were able to get home with their loads of freight, and other needed supplies were freighted to points distant from railroads. There was much threatening of storms, the snow laid but a very thin covering over the meadows, but not until Feb. 14th and 15th did the storm come, a two-days' fall of rain and snow, which wound up with a heavy southwesterly wind giving promise of more storm, which began again Feb. 22d and continued Feb. 23d and 24th, clearing off in the night, causing us to feel that the weather was still unsettled, and the evening of Feb. 25th more rain began to fall, which again changed to snow. The ground is thoroughly wet and the prospect for a good season seems assured. The storm through which we are passing is warm for the season, and consequently easier on stock. Having had very little cold weather, there has been less hay consumed than some other years, and last summer's hay crop being so abundant, there is a good deal left over in this section. *Two days later.*—Weather still unsettled, a little snow falling, with warm, thawing weather between the occasional snowfalls.—M. P. A., Beckwith, March 4.

### San Luis Obispo.

**GRAIN CROP PROSPECTS.**—Fawcett *Grove Cor. San Miguel Messenger*, March 6: I have not seen in the last 14 years grain look as well as it does now at this time of the year. I have always been taking note of the amount of grain sown in this part of the country. Calling San Miguel the northwest corner of a township, or six miles square, I find that there is in so small a space 11,000 acres of grain up and growing and it looks very well. At a low estimate it will yield 110,000 sacks of grain.

### San Diego.

**SANTA MARIA.**—EDITORS PRESS: We are having an abundance of rain now, as there has fallen in the past week over six inches and it is still raining. There is an average acreage of grain sown, which is in good growing condition, with but few exceptions where it is covered by water. There will probably be many more acres sown as soon as the ground dries enough to permit it. There are many orchards being planted in the valley and its environment—mostly peaches and prunes. Mr. J. Sherman, the largest planter, intends to finish putting out 90 acres that was commenced last year. Meeker & Chapin of Poway furnish him with home-grown trees. They have supplied several others in the valley with thousands of trees. Others

have planted quite extensively trees from the Phoenix nursery of Illinois, received through Mr. S. P. Layne of this valley. I am much pleased with the people of this vicinity. Most of them are "rustlers" who have come to stay and are not afraid to make improvements, whether done by their own or hired hands. There are hundreds of acres of brush land being cleared and planted to fruit trees and vines, which seem to give better satisfaction than that which is already clear, although the fruit and tree pests are more troublesome.—S. D. KIRKMAN, Nuevo.

**SAN DIEGO COUNTY SHEEP INDUSTRY.**—Bob Weyms in *Otay Press*, March 5: I will proceed to give you the names of the most prominent sheep-raisers in the Otay Valley and the surrounding country in its immediate vicinity. A. Schneck & Bros., Otay Valley, 2500 ewes, increase 2000; Andrews & Co., 3500, increase fully 3000; S. Schneck & Bros., 2800, increase 2400; Gambette & Co., 2000, increase 1800; Casarat, 2000, increase 1600; John Saeraval, La Jolla, 3000, increase 2500; Pedro Deleval, 1500, increase 1200. On the San Bernardo Rancho there are fully 10,000 head. At Temecula there are fully 20,000 head. At El Cajon there are 5000 wethers owned by Schneck Bros. At San Jacinto there are 12,000 head all told, and scattering in the county there are 9000 head. The above only includes old sheep. Excepting the 5000 wethers at El Cajon, the aggregate number of sheep now will come up to 70,000 head. The spring shearing will be much later than heretofore. The clip in the county will be a very large one, and I can safely say that the clip in the Otay for cleanliness cannot be surpassed, as the sheep are all in a fine, healthy condition.

**VINE AND TREE-PLANTING IN SPRING VALLEY.**—San Diego, Feb. 26: Estimating the land under cultivation in Spring valley, County Horticultural Commissioner Jones and his deputy, James F. Brooks, show that there are 14 people owning a little over 2465 acres. These have 900 acres in nursery stock, 141 in olives, 66 in mixed fruits, 57 in oranges and lemons, with 3375 trees additional, 45 in vines with 1200 additional vines, 20 in almonds, 13 in figs, 5 in guavas, 5 in blackberries, 4 in English walnuts, 3 in peaches and apricots, with 100 apricot trees, 75 prune trees, 70 lime trees, 25 apple trees and 7000 head of cabbage. There are also yet to be planted 5 acres of oranges and lemons; 3 acres to vines and 400 orange trees.

**NEW HAY.**—San Diego, March 3: New hay was brought in yesterday from W. R. Rea's Spring valley ranch. The crop of wild-oat hay now maturing will be of short cut and not heavy, but it will tide over until the later crops of barley and wheat hay are harvested. The price of hay is liable to drop from now on.

**GLOWING ACCOUNTS FROM THE BACK COUNTRY.**—H. F. Norcross in S. D. *Union*: The rain has been a glorious one—the best that has fallen, they all say, in six years. It soaked right into the ground, without any washing whatever, and the precipitation was very general and uniform. I was at Bear Valley, San Pasqual, Fallbrook, San Marcos, Escondido, etc., and everywhere I found things in most excellent shape. It was simply astounding to me to see the amount of planting that is going on—trees and vines of every kind and description, and in quantities that make a man feel good all over. Another encouraging feature of the situation is that fully 80 per cent of the season's plowing is done. Last year, you remember, people held off to await the rains, which, when they did come, continued so incessantly as to prevent plowing, the consequence being a small crop acreage. This year, however, every one pitched right in after that November rain, with the result indicated. We will have fine crops, and if planting keeps up for a few more years like it is now doing, the "back country" of San Diego will no longer need any foresight to defend it.

**RAISINS GOING EAST.**—San Diego, Feb. 26: The first carload of raisins to be shipped this year by the Producers' Union started for Chicago with about 11,000 boxes. They are mostly Three Crown raisins, with a few boxes of London Layers. Dr. Hillary's Poway vineyard furnished the fruit. The other carload which followed contains raisins from Frank Stephens of Ballena, J. M. Asher of Cajon, and several others. The raisins have been held at the union since December to wait a return to better prices, which now offer.

### Santa Barbara.

**THE OLIVE-OIL MILL RUNS NIGHT AND DAY.** S. B. *Press*: The olive-oil mill at Elwood has been kept going this year night and day, but has been unable to crush all the olives grown on this side of the mountains. It is estimated that at least 40,000 pounds of olives were wasted this year because of insufficient facilities for manufacturing. This represents about 10,000 bottles of oil, worth \$1 a bottle.

### Santa Clara.

**FRUIT-GROWERS COMBINE.**—Cupertino *Cor. San Jose Mercury*, March 5: The fruit-growers have combined for mutual support and protection, and now I hope to see the grape-growers follow their example. As our new hall was the meeting-place of the fruit-growers, now let it be the meeting-place of a viticultural combine.

### Shasta.

**RAMIE-PLANTING IN SHASTA.**—Redding *Free Press*, March 7: Arnold Becker of Berkeley will plant next month on the Howard ranch, owned by Mrs. Ella Pond, 60,000 roots, occupying 20 acres, and next year 300 acres will be

planted. As each root multiplies from 10 to 30 times in a year, and as three cuts can be made each year, by irrigation, giving from 2000 to 3000 pounds of product, it will be seen that this is a profitable plant to grow.

### Solano.

**PLANTING MUSCAT GRAPEVINES.**—Dixon *Tribune*, March 7: J. R. Bloom has prepared ground to put out 15 acres of Muscat vines. The vines are well rooted and were selected with great care. As soon as the soil is dry enough, they will be put out.

### Sonoma.

**RAMIE CULTURE IN SONOMA COUNTY.**—Sonoma *Democrat*, March 7: Captain Boyes of Sonoma valley has ordered 10,000 ramie plants which he will plant on his ranch in that valley. An acre of land will carry about 3000 plants. Captain Boyes has seen the plant growing in its native India, and seems to understand its adaptation to our soil and climate.

**TO ERADICATE SORREL.**—J. H. Close, Mark West Springs, in San Francisco *Alta*, March 8: Apropos of sorrel, it is rightly estimated when it is pronounced a difficult customer. Its presence always indicates an excess of oxalic acid in the soil. Hence in the same field there will be some spots where it will flourish much more luxuriantly than others. An acquaintance of more than 30 years with the pest has convinced me that digging and cultivating only tend to spread and foster the evil. But there is a remedy that in Pennsylvania, Ohio and Michigan, to my certain knowledge, has proved efficacious. Take slack lime and scatter not less than 25 pounds on every square rod, and you will see the pest vanish as if by magic. This would be a trifle expensive only on small areas. But when it is taken into account that the lime will double and sometimes treble the yield of other crops, it will be found a mitigating circumstance.

### Sutter.

**SALES OF WHEAT.**—Yuba City *Farmer*, March 6: The wheat market has been quite brisk here lately. G. W. Peacock last week bought over 700 tons in the Farmers' Co. Union warehouses, paying in the neighborhood of \$1.30 per cental. The following parties were concerned in the sale: J. A. Onstott 300 tons, B. F. Frisbie 100, J. C. Gray 130, Jas. Littlejohn 50, M. Kerns 133. W. T. Ellis & Son also bought 40 tons of Mrs. Mary Webber for \$1.30 per cental.

### Tulare.

**PRICE OF SHEEP.**—Porterville *Cor. Tulare Register*, March 6: Stock is doing well and the sheep-men are selling off the surplus stock in their flocks at good figures. C. T. Brown sold 175 young lambs at \$2 per head. Four dollars per head for full-grown mutton sheep has been the price.

**CENTRAL FARM NOTES.**—Central, March 5: J. J. Cairns has in 19,000 acres of grain and it is all up and looking fine. He is getting ready now to level 70 acres on his home place for orchard, vineyard and other purposes. There is a number of small vineyards being planted. Grape-raising is in its infancy here, but it is a thoroughly demonstrated fact that no trees are healthier, grow faster and bear better than the orange and lemon.

**ORCHARD NOTES.**—Phil Snyder, West End, in *Register*, March 6: Several fig orchards are being planted here. It is not an experiment in figs, as your correspondent brought over five fig trees and gave them to a neighbor two years ago. The first year, fine figs matured on one tree. Last year there was a nice crop for two-year-old trees. They have done extremely well and we are willing to try fig-raising.

**FIRST RABBIT-DRIVE.**—Porterville *Farm View*, March 6: There was a rabbit-drive at Dawey's ranch last Sunday, and over 500 pests were slain.

**CROP PROSPECTS IN 76 COUNTRY.**—Traver *Advocate*, March 5: The prospects for a bountiful harvest were never better in the history of the 76 country than at the present time. The rains during the past two weeks, followed by warm days, have caused the wheat, which had done nothing in the way of growth, to shoot forth its verdure very rapidly, and land which but a few weeks ago was almost as bare as fresh-plowed ground is now almost hid from view by the growing grain. The pruning of vineyards and orchards is nearly completed and the cultivation of the land has been commenced, and it will not be a great while until we shall see fresh fruit in our market.

**A SPLENDID IRRIGATION SYSTEM AND WHAT IT HAS DONE.**—Farmerville, March 5: The farmers here early learned the fact that irrigation was necessary to insure crops, and the Consolidated People's Ditch Co. was the outgrowth of a ditch right that was established as far back as 1860. The ditch is one of the best irrigation systems in the county, and carries enough water to irrigate at least 100,000 acres of land. There is no such thing as failure of crops on lands that are under this system of irrigation, and in fact the land is so well watered that irrigation would not be necessary for alfalfa, were it not for the fact that the lands have to be flooded each season to drown out gophers and squirrels. The richness of the soil is attested by the fact that Chinamen pay large rental for lands to be used for garden purposes. Corn grows on this land to a height of 12 to 14 feet, and produces from 60 to 80 bushels to the acre. Alfalfa yields from eight to ten tons to the acre annually. Fruit trees grown on these lands have the appearance of two-year-old trees in one year's growth, and for prune and peach trees no richer or better section can be found.



The farmers are just opening their eyes to this fact, and extensive orchards will be planted there in the future, the industry having a fair start this season.

How to GET RID OF ALKALI.—Visalia, March 5: T. J. Brundage states that when he located at Farmersville, the property where his house now stands was an alkali-bed, but like other alkali lands in that vicinity, the alkali was mostly on the surface, never reaching a depth of more than 12 or 18 inches. He now has a thrifty orchard on his property, and has no trouble whatever in growing trees or ornamental shrubbery. He got rid of the alkali by plowing trenches, in which he planted his trees, and turning the water into these trenches, the land was soon leached of alkali. Mr. Brundage is confident that the worst piece of alkali land in all that section can be "cured" by the method he followed. At times he allowed water to stand in these trenches for weeks, and says that though his trees were in pools of water, they suffered no injury, as the land was cool and did not bake.

NEW ORCHARDS AROUND FARMERSVILLE.—Visalia Times, March 5: The Giant Oak Fruit Co. is an organization composed of gentlemen from Vacaville, Solano county. Their property was purchased of ex-Sheriff D. G. Overall during the past summer. T. H. Thompson is foreman of the place, and he has had a large force of men employed in cleaning up the place and planting it to orchard. Two hundred and forty acres have been planted this season. The company took its name from an oak tree in the road near their place that measures over 11 feet in diameter. The same company purchased the W. G. Pennekaker ranch, but do not take possession of the property until next July. The Robert Broder ranch was purchased by a syndicate of San Jose gentlemen last spring. There are 271 acres of the property, and 240 acres of this have been planted to trees this winter, and the remaining 30 acres will probably contain fruit trees before the season for planting is over. George T. McLoughlin of San Jose, an experienced orchardist, is superintendent of this property. The Spear Bros., Henry and Jacob, have planted six acres to prunes. The Strong Bros. have leased a portion of the Hulse place for a term of ten years, and are this season putting out ten acres to prune trees. J. A. Hulse himself is putting out five acres. J. W. Mathewson has prepared 15 or 20 acres for trees, to be planted this season. W. G. Garland of Oakland, who owns a portion of what is known as the Bacon land, is planting 40 acres to vines and trees. W. Lytle of Tulare is superintending the work. Lewis Rice is planting 10 acres to vines. Mrs. N. Lawless is putting out trees and vines. J. F. Sullinger is devoting 10 acres to vines. H. T. Anderson is putting out peach and prune trees. McCutchan & Doty are putting out nursery stock and orchard. Parker & Rich are planting seven acres to peaches and prunes. W. A. Sims is preparing ground for orchard, to be planted next season. Fred Creighton is planting peaches and prunes. Yolo.

DAMAGE BY A BREAK IN THE YOLO LEVEE.—Sacramento Record-Union, March 5: News reached the city yesterday forenoon that the levee on the Yolo side of the river had given way below Reed's orchard. The course of the water inside the broken levee was turned mostly up toward Washington through C. W. Reed's pear orchard. There were no houses or barns in the direct line of the crevasse, and most of the stock had been removed, so that no particular damage will result to improvements except that of the loss of crops which were in. The current in the river set in strongly toward the break, which occurred in a sharp bend in the levee, and the river water was running up stream as well as down, toward the new outlet. Reed's fine orchard will be completely submerged. It was in fine condition and the trees (mostly pears) had been lately sprayed. If the water recedes before the weather gets warm, it is thought the trees will not be greatly damaged, as they will stand the water better than most other varieties of fruit trees. [The water has receded.—EDS. PRESS.] All crops of potatoes, beans, vegetables, alfalfa, etc., will of course be a total loss. The levee opposite the lower portion of the orchard is low and weak, and the sillage is causing it to slip on the inside slope. The water at this point is higher than the levee and is kept out with sacks filled with earth.

NEVADA.

OLIVE GROVES FOR NEVADA.—Virginia Enterprise, March 6: There is no reason why we should not have many great olive orchards in Nevada. It is well known that olive trees flourish finely in the southern part of the State. There are now in the country along the Rio Virgin many olive trees that were planted some 20 years ago when the Mormons were in possession of that country. The olive could probably thrive in places far north of Rio Virgin.

SHIPPING HAY TO CALIFORNIA.—Silver State: The ranchers of Lovelock are kept busy haling hay and shipping it to California. Last year it was different, Nevada was buying hay in California and shipping it to this State to feed the starving cattle.

PARTIES DESIRING IN GOOD FAITH, to purchase from the U. S. Quarter-Sections of Sugar Pine Timber Land, should write or apply for information to STORY & CUTTING, Surveyors and Land Agents, Rooms 26 and 27, No. 420 California St., San Francisco. Best of references furnished.

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and strength. The rapidity of the cure astonished me, as I expected the process to be long and tedious."—Frederico Mariz Fernandes, Villa Nova de Gaya, Portugal.

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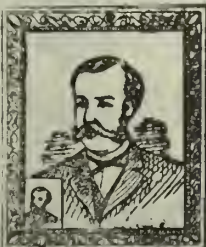
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Red soil, superimposed upon upturned, friable, decomposing slate, yielding iron and alumina, thus furnishing a soil which, as Prof. Hilgard said after his analysis, will retain moisture, will not require irrigation, and will not allow the vegetable mold to leech away; thus suited to the growth of fruit trees, especially the olive, as has been demonstrated both by the remarkable growth of the tree and the yield and the quality of oil.

It is situated only 15 minutes walk from Auhurn Station—the C. P. R. R. passes along one side—and is a less distance from the Court House. Thirty acres improved and planted to olives, set at long distances for permanent growth, and other fruits planted between the rows for temporary profits, mostly peaches of three best varieties, ripening in succession; prunes, mostly Petite; plums of several varieties, as Kelsey, Japan, Shropshire Damson, etc.; figs of several best varieties; a few apples, nectarines, blackberries, etc. Two acres of table and raisin grapes, never irrigated, the vines remarkably vigorous and in full bearing. The trees, especially the 1500 olive, have all been planted with regard to permanency. About one-half of them have an orchard growth of seven years; fruited last year 300 pounds, this year nearly one ton. They are mostly Mission and Picholine, with a few trees of other choice varieties. Two crops of the olives have been pressed. The yield has been, for the first press, 14 per cent of very clear delicious table oil, and four per cent from the second press—the Picholine yielding this, of a peculiarly clear, nutty oil.

There is on the ranch a few acres of grain sown for hay; two acres of well-set alfalfa, below the Auhurn ditch, which crosses one corner of the property; also a small house of four rooms and a kitchen; a well of good water; a small barn; a strong, permanent spring of soft, cold water, which wells up through the slate; a two-inch iron pipe connects the spring with an iron-hooded 20,000-gallon tank, situated on a beautiful pine clad hill, 40 feet above the spring, a point which overlooks the town and gives very charming distant views, and is one of the most lovely sites for a residence to be found. The water is pumped to the tank by a duplex pump; the power, a four-horse steam engine, which furnishes power sufficient to pump, saw wood, run an olive crusher and do all needed shop work.

The land is all suited to fruit, excepting along a rocky ridge, which furnishes three very desirable residence sites, and the olive, set promiscuously, thrives finely among the rocks. The property can be conveniently divided along a sag which separates two of the high knobs, and water from the spring can be pumped to each of them.

This desirable property is now offered for sale for less than the improvements cost. The land is fenced, the title good and unencumbered. It is connected by a roadway, which is one of the improvements made, with one of the principal streets of Auhurn.

The sale will convey the entire plant, furniture in the house, all utensils, etc. If sold before April 1st the sale will include the coming crop. If later, the crop will be reserved, unless otherwise by special agreement. If desired, one-half the purchase money can remain five years, secured by mortgage at eight per cent. For price and any further information desired, address

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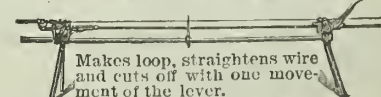
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## THE VINEYARD.

### The Sweet-Wine Investigation.

Prof. Hilgard and assistants concluded on Friday of last week the experiments relative to the methods of determining the alcohol in sweet wines and the discussion of results. The record and discussion of this work was mailed to Commissioner Mason on Saturday.

The document is too lengthy and abstrusely technical for republication in a newspaper, but the following may be given as its main points:

In his letter to Prof. Hilgard, received on February 27th, the Commissioner assigns as the reason for the adoption of the "saccharometer method" that has given such alarmingly discrepant results with our sweet wines, that it

the distillation method is applied to sweet wines of high sugar contents, it is shown that the error in ports and sherries will not usually exceed six-tenths of one per cent, and by the government's own showing is therefore neglectable, and is ordinarily neglected in commercial transactions. But if it is desired to make the correction, it can readily be done without elaborate calculation by a "subtraction coefficient," dividing the sweet wines into three classes according to their sugar contents and using for each a corresponding correction, by simple subtraction. The percentage results thus obtained are shown in parallel columns and prove such close approximations, that outside of an analytical laboratory a better agreement would not be looked for. Prof. Hilgard therefore concludes that while there is every reason for the rejection of the saccharometer method, no valid objection lies against the well-understood "Salleron," and he accordingly hopes that the Commissioner will consent to the substitution.

The table below gives, in an abridged form,

#### Comparative Observations on the Determination of Alcohol in Sweet Wines.

##### 1.—OBSERVATIONS AT INTERNAL REVENUE OFFICE, SAN FRANCISCO.

GROWER	Variety.	3.		5.	6.		7.
		U. S. Tables.	Salleron Test.		Corrected by Formula.	Corrected by Constant.	
I.—Sierra Madre Co., Landa Park.	Port.	19.29	21.99	2.70	20.71	21.09	
II.—H. C. Fingers, Fresno.	Port.	17.98	19.59	1.61	18.78	18.69	
III.—P. O. Burns, San Jose.	Port.	16.10	19.28	3.18	18.48	18.38	
IV.—Baron Estate Co., Fresno.	Port.	20.64	22.18	1.54	21.19	21.98	
V.—Roscoe Winery, Los Angeles.	Sherry.	17.23	20.24	3.01	19.69	19.64	
VI.—P. O. Burns, San Jose.	Angelica.	16.48	19.28	2.80	18.45	18.38	
VII.—C. G. Anderson, Fresno.	Angelica.	16.67	20.24	3.57	19.39	19.64	
VIII.—H. R. Wagoner, Livermore.	Port.	20.45	21.19	.74	20.43	20.59	
IX.—J. P. Smith, Livermore.	Angelica.	15.00	17.70	2.70	16.43	16.70	

##### 2.—OBSERVATIONS AT UNIVERSITY LABORATORY.

GROWER	Variety.	3.		5.	6.		7.
		U. S. Tables.	Salleron Test.		Corrected by Formula.	Corrected by Constant.	
X.—Gallegos Winery, Irvington.	Port.	16.15	19.49	3.34	19.08	18.80	
XI.—Gallegos Winery, Irvington.	Port.	13.77	17.20	3.43	16.60	16.60	
XII.—W. A. Son & Co., Oakland.	Port.	15.73	18.22	2.49	17.59	17.62	
XIII.—H. W. Crabb, Oakville.	Malvoisie.	10.87	13.00	3.03	13.00	12.90	
XIV.—H. W. Crabb, Oakville.	Malvoisie.	10.87	13.80	2.93	13.01	12.90	
XV.—University Cellar, 1889.	T. Madeira.	16.29	16.43	.14	16.63	16.82	
XVI.—University Cellar, 1890.	T. Madeira.	17.98	18.78	.80	18.43	18.8	
XVII.—University Cellar, 1889.	T. Amarella.	14.65	17.17	2.52	16.61	16.50	
XVIII.—University Cellar, 1889.	Trousseau.	16.10	18.25	2.15	17.62	17.65	

was "desired to embody in the regulations some simple and approximate means for Internal Revenue officers to use in ascertaining roughly the alcoholic and saccharine strength of the wines the fortification of which they would be called upon to supervise." Elsewhere he states that the Department chemists "have not, by this rough method, found a difference exceeding two per cent, and in most cases the results of the rough method are less than one per cent lower than by analysis."

In his reply, Prof. Hilgard calls attention first to the fact that a much more accurate method, viz., that of distillation (by the "Salleron" still), is in common use in every important winery in California, and to a considerable, perhaps excessive extent forms part of the basis of bargain and sale of wines. That to put on record, officially, any widely discrepant determination of the alcoholic strength of a man's wines will disturb this basis and open the door to endless worry, contention, and possibly even legal difficulties, should any purchaser, or even a Government gauger, be disposed to harass the producer. He therefore concludes that the Government gauging ought in this, as in other respects, to be done with the utmost accuracy practically feasible.

That in its application to the young sweet wines at the time when fortification or refortification is called for, the government method does not even approximately come within the limits of accuracy required, is then shown by a tabulated statement of the results of eighteen tests made by both methods, partly conjointly with the Deputy Collectors at the Internal Revenue office, San Francisco, partly at the University Laboratory. Of the eighteen samples, one shows a difference of 3.6 per cent too low as compared with the "Salleron"; six show differences of over three per cent; thirteen show differences of over two per cent; and only three of less than one per cent. According to the accepted schedule, the wine-maker would, if these figures be admitted, have to make up such amounts by further fortification before his wines would be salable. It is true that, as stated by the Commissioner, the determinations of the deputies are not to be final, and doubtful cases would be referred to Washington for revision by the chemists. But under the showing made, the government method should possess very great advantages, not realizable by any other feasible one, to justify its retention.

This point is next taken up by Prof. Hilgard; a number of causes of inaccuracy are shown to be irreducible in the application of the saccharometer method to young sweet wines, and also that no uniform coefficient of correction is applicable to all cases, although that of division by .8 applies to a great many. The Commissioner's objections to the "Salleron" or distillation method are then discussed, his letter claiming it to "involve much more elaborate manipulations and calculations" than the saccharometer method. The fact that it is in general and satisfactory use by cellar foremen throughout this State, that students learn to carry it out correctly in the laboratory within a single day, and that Deputy Collectors are not likely to be less intelligent, is adverted to; and as to the brevity claimed for the government method, it is shown by actual timing to be far behind the still, at least two to one. In regard to the complex calculations claimed to be required when

the data upon which the discussion is based. Columns 3, 4 and 5 show the discrepancies resulting from the use of the government method; an inspection of columns 6 and 7 shows the close approximation that may be reached under the method recommended by Prof. Hilgard.

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THE ANNUAL MEETING OF THE STOCKHOLDERS of the Grangers' Business Association, a corporation, for the election of a Board of Directors, and for the transaction of such other business as may properly come before it, will be held at 108 Davis street, San Francisco, at 10 o'clock A. M., Wednesday, April 8th, 1891.

I. C. STEELE, President.

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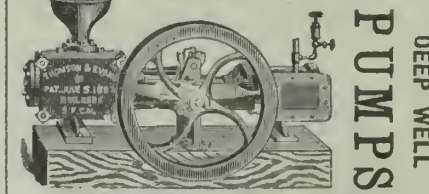
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## HORTICULTURE.

## State Horticultural Society.

The February meeting was held in this city on the 27th, President Hilgard in the chair. H. A. Baird of San Jose was proposed for membership.

Mr. Smith, from the committee appointed to tender an invitation to the American Pomological Society to hold their next meeting in this State, reported the receipt of a letter from President Beekman stating that the large expenses incident to the journey would prevent the holding of the meeting on this coast.

A. L. Bancroft tendered his resignation as director, which was accepted, and Emory E. Smith was elected to fill the vacancy.

The committee appointed at the December meeting to report upon observations by Prof. C. H. Allen on fraudulent sales of alleged California fruit at the East, submitted their report, which was published in full in last week's RURAL. The report was adopted.

President Hilgard announced the death of W. G. Kiee, an old and esteemed member of the society, and upon motion the following committee was appointed to draft a memorial expressive of the society's esteem of his valuable work and of honor for his memory: Dr. Edwin Kimball, Leonard Coates and Emory E. Smith.

Mr. Wickson asked for experiences regarding the cutting back of tree roots at transplanting. One member told of success in trimming roots to within a foot of the tree.

Dr. Kimball said he had had success with root-pruning orange trees the year before transplanting. From experience in raising orange trees in the nursery he was satisfied they would do better if the roots are cut off about a foot below the surface. He has some 12,000 trees which he proposes soon to treat in this way by running under the row with a tree-digger. A system of fine young roots develops after the deep-growing roots are cut off.

Mr. Mosher spoke of apricot trees girdled by gophers. He found a way to save such trees is to pack earth about the girdled part, wetting it and packing hard about the tree. His method had been successful in a great many cases, and he is now convinced that he could have saved trees which he had formerly dug up. If the wounded part is kept moist, a new bark will appear.

## Winter Spraying for Scale Insects.

Howard Overacker Jr. read an essay on Winter Spraying, which was published in full in last week's RURAL.

Prof. Hilgard remarked that winter washes must be much stronger necessarily than summer washes, and there seemed to be a disposition to depend more upon summer treatments. He had used a dilute solution of the Ongerth wash successfully in summer, and had also used coal-oil emulsion.

Rev. A. T. Perkins of Fruitvale remarked that his experiences with the Ongerth wash had been very disastrous, a great many trees being killed.

Mr. Bancroft thought growers should always make their own washes, because they could know the components, and not depend on any proprietary wash.

Mr. Mosher of San Jose, Commissioner of Horticulture, said he had done little or no spraying in his orchard. He thought he had realized great benefit from coating the trunk and main branches with lime, salt and sulphur, put on with a brush late in the spring.

Dr. Kimball remarked that the most successful fruit-raiser around Haywards is a modest man—Judge Blackwood—and he has for years done little or no spraying. Dr. Kimball confessed that after repeated experiments he had come to have little or no faith in any scale wash, and, like many others, he is now waiting for the discovery of a parasite that will destroy the scale.

Judge Blackwood remarked that he formerly sprayed his apricot orchards, but since he has abandoned the practice his trees have apparently done as well as ever, though, of course, he could not tell what the future would be. His theory generally is that nature supplies a remedy for nature's evils.

Prof. Hilgard summed up the discussion by urging the need of careful experimentation in the matter of spraying. There are beneficial washes and hurtful ones, and the careful grower must find by experience that which does his trees the most good. It certainly is a step backward to advocate no spraying, for its efficacy in many instances has already been shown.

Mr. Lelong distributed copies of a recent bulletin of the State Board of Horticulture, giving an account of the parasite of the orange scale discovered by Mr. Craw. This account was in the RURAL PRESS of February 28.

## Apple-Growing.

Mr. Leonard Coates read an essay on apple-growing, which was published in last week's RURAL.

Judge Blackwood expressed the opinion that the best apples of California will be produced above the snow line in our mountain valleys.

Dr. Kimball also advocated the highlands for apples and outside the Sierra the apple will not do well. If the ravages of the codlin moth could only be kept from the orchard he would

rather have a bearing apple orchard than any other orchard property. He recited several instances of California apples being received with delight by Eastern residents.

R. C. Kells of Yuba City spoke enthusiastically of an early apple raised near his home, known as the White Astrakan. Strong & Co. buy these every season, paying about \$1 a box, and ship them to Denver.

## Observations at the East.

Rev. A. T. Perkins of Fruitvale, who has just returned from a trip East, said he had found a general desire on the part of all residents to know more about California. A well-informed man told him that he never heard of the State except when there is a great storm or a failure of the fruit crop. A close search for dried fruits revealed to him in the markets a shocking lot of poor fruit, or better samples for which very high prices were asked. Peeled peaches in Baltimore were retailing at 50 cents a pound. Canned fruit is much cheaper and better, but apparently the interests of dried fruits have been very much neglected. Opinions concerning our fresh fruits differed widely in different places. All observations convinced Mr. Perkins that there is a steady demand for our fruit products in all Eastern cities, providing it can be sent there without too great a cost for transportation and marketed at a reasonable figure. He told of a pleasant visit at Washington with Secretary of Agriculture Rusk and his assistant, Mr. Willits. Secretary Rusk was found to be very cordial and expressed the greatest interest in all matters relating to California fruit interests, especially that of plant registration and nomenclature, which the society has lately been considering.

The subject chosen for the next meeting was spring and summer spraying for codlin moth and other pests, to be opened with an essay by Capt. Brainerd of San Jose. On motion the society adjourned.

## Shade Trees Beside Orchards.

EDITORS PRESS:—Along the east side of my prune and almond orchard in Santa Clara Co., there is a row of large eucalyptus and cypress trees, and the orchard trees near do not do well. Is it on account of the shade or the roots of these large trees robbing the soil of fertility? Which does the more harm, the eucalyptus or the cypress, and is there any remedy other than sacrificing the ornamental trees? Are there any other fruit trees that would do better there?—T. D. McADAMS.

It is usually considered that it is the theft of moisture rather than of fertility which makes adjacent trees suffer so severely from eucalyptus and cypress. The loss is felt probably in both directions, and the trouble may be attributed to the marvelous root extension of the border trees rather than the shade. We do not know of any fruit tree which will thrive when thus completely run under. Commonly the grower has to choose between the two rows which he prefers to save, fruit or shade. A temporary purpose may be served by deep trenching along the orchard side of the shade trees, cutting off all roots encountered. This operation will partly alleviate the trouble, but will have to be repeated at intervals.—EDS. PRESS.

Miss Bessie H. Badloe, of Burlington, Vt., had a disease of the scalp which caused her hair to become very harsh and dry and to fall so freely she scarcely dared comb it. Ayer's Hair Vigor gave her a healthy scalp, and made the hair beautifully thick and glossy.

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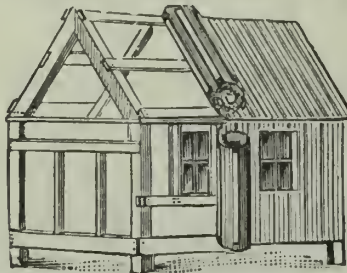
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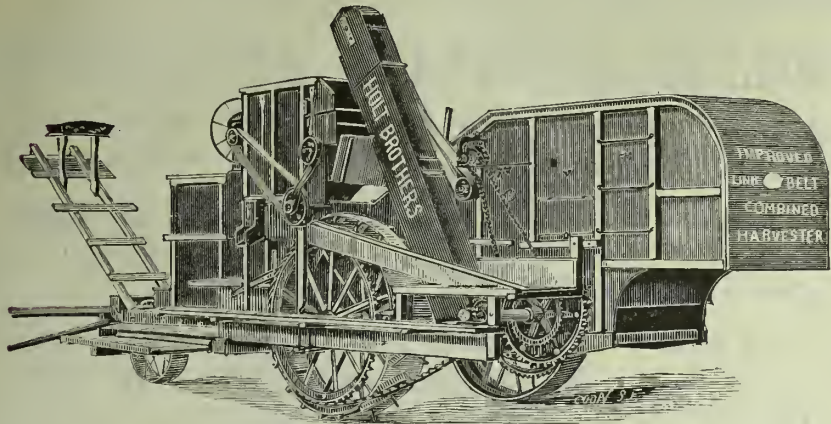
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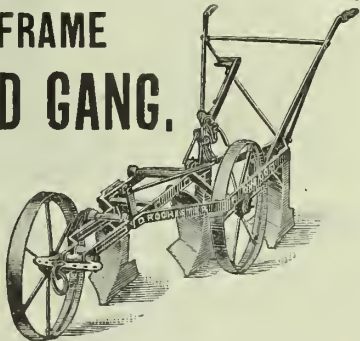
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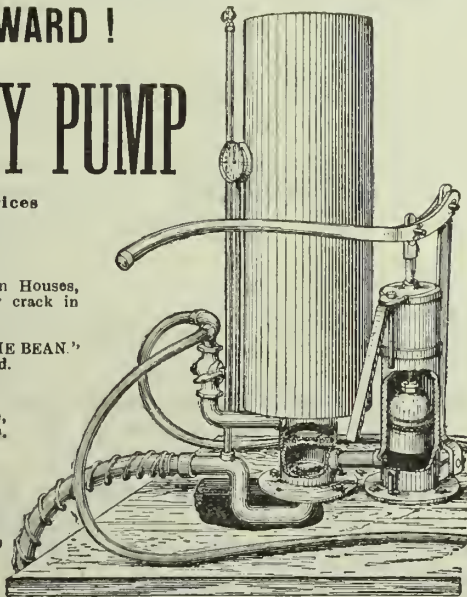
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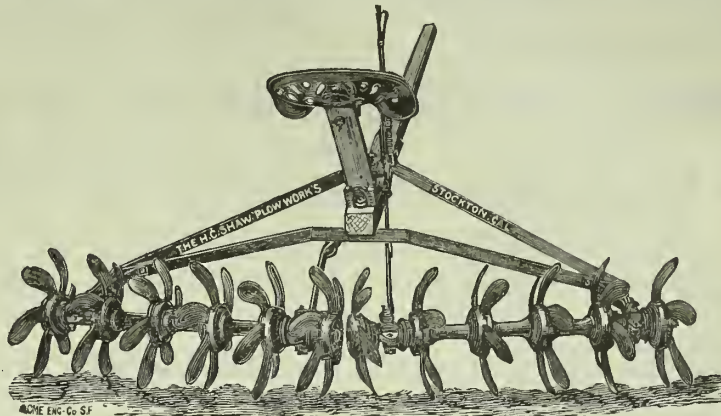
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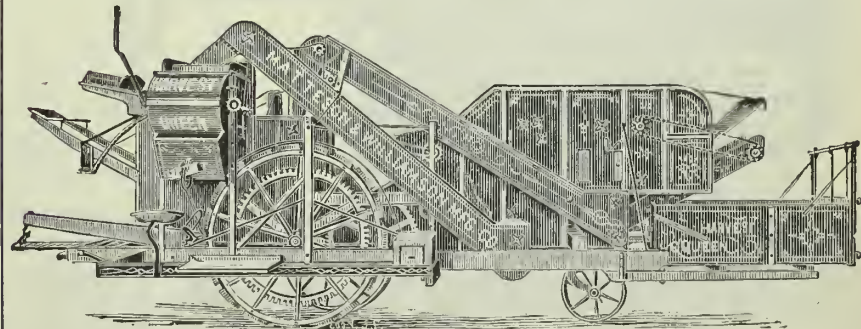
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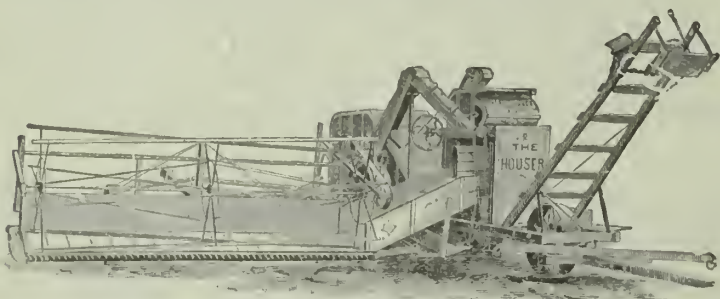
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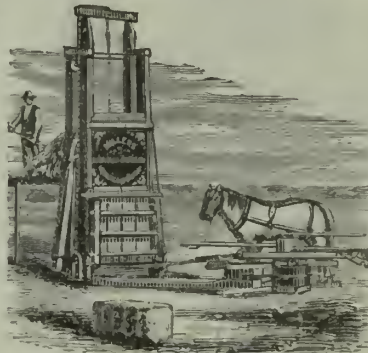
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10 TONS

IN A CAR.

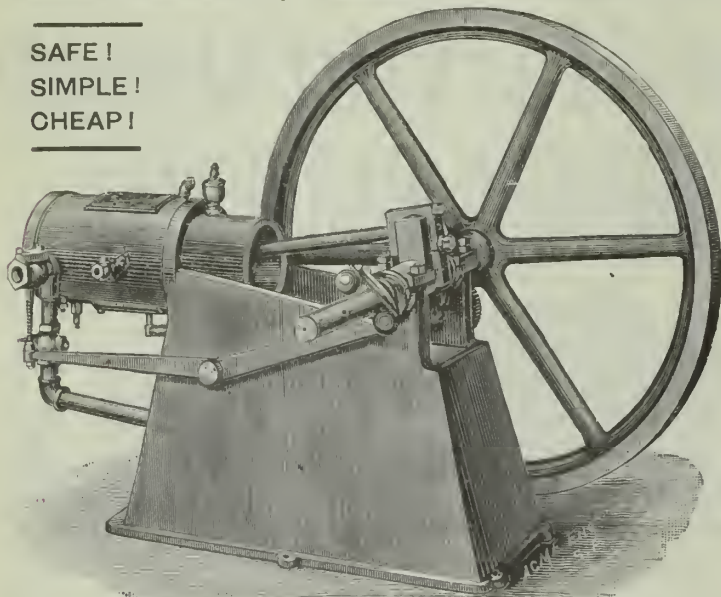
## CARS OF EVERY DESCRIPTION.

STEAM,  
ELECTRIC, CABLE,  
AND HORSE.

PASSENGER,  
BAGGAGE,  
AND FREIGHT  
CARS.



SAFE!  
SIMPLE!  
CHEAP!



## REGAN VAPOR ENGINE.

NO BOILER. FIRE, EXPLOSION, STEAM,  
ASHES OR ENGINEER.

Started Instantly Without Even a Match. Will Run on Natural or Manufactured Gas or Gasoline. The Moment Engine Ceases to Run, all Expense Stops.

Upright and Horizontal, Stationary and Marine Engines from 3-4 Horse Power, Upward.

Our Engines are especially adapted for Pumping and Irrigating and Spraying Fruit Trees; in fact, for any use where power is required.

OVER 400 IN USE.

POPE & TALBOT, LUMBER, Office, 204 California Street.  
SAN FRANCISCO, Feb. 25th, 1890.

REGAN VAPOR ENGINE CO.—Gentlemen: The 4 H. P. Vapor Engine I bought of you last May has been in constant use ever since, and has given me entire satisfaction. I have found the engine to be all that you claimed for it, and more too. You can use my name for reference if you so desire. I am, yours truly,

H. TALBOT.

We Carry Thos. Kane & Co's Famous Racine Launches, fitted with our New Compound Engines.

Send for Circular.

## REGAN VAPOR ENGINE CO.,

221-223 First Street, San Francisco, Cal.

## Cheaper Than Windmills for Farmers!

Our Perfected "Safety" Engines Cost to Run only 1-8 Gallon of Gasoline per Horsepower per Hour. No Boiler, Fire, Smoke, Steam, Ashes or Heat. No Engineer, No License, No Danger. Single and Double Acting. 1/2 H.P. to 20-H.P.

GENTLEMEN—The 2-H. P. Engine received and set up yesterday. We attached it to part of the machinery in my shop, and it ran my Drill Press, a small Lathe, a large 24-inch by 14-foot Lathe, and a set of Emery Wheels, all of which it handled easily, to our great surprise. Yours very respectfully,

SAN BERNARDINO, CAL., January 10, 1891.

J. B. HENDERSON.

GENTLEMEN—I am satisfied, after running for over a month my Bean Cleaner, etc., with the 4-H. P. Engine you sent me, that it is much the best Gas Engine I have seen. The electrodes are certainly superior to all others; also your safety rotary slide-valve, which is the personification of simplicity, positiveness and durability; I am satisfied it will develop much more power than we have need for. I also want a 1/2 or 1-H. P. for my wife and daughters to use about the house; we have a rotary clothes washer, can also do the churning, etc. I do not know of any better recommendation than to order a second engine. Respectfully yours,

CARPINTERIA, CAL., January 12, 1891.

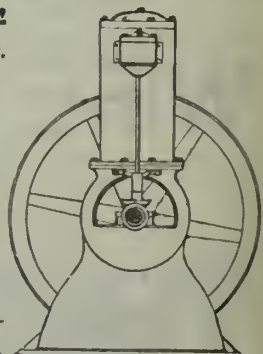
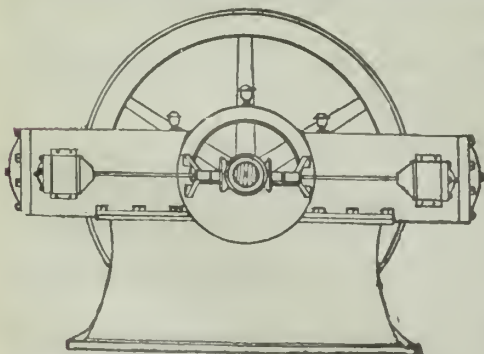
P. C. HIGGINS.

NOTE.—Both of these Engines were shipped to the parties named, and were set up by them solely by the diagram and printed directions we sent them.

Pumping Plants, Yachts & Launches,  
Street Cars, Fire Engines, Water  
Works, Etc.

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Complete Plants of all kinds, Stationary or Mounted on Wheels  
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**T. W. JACKSON & CO.**  
Manufacturers' Agents,  
410 Market St. and 8 California St., S. F.



List of U. S. Patents for Pacific Coast Inventors.

Reported by Dewey & Co., Pioneer Patent Solicitors for Pacific Coast.

FOR THE WEEK ENDING MARCH 3, 1891.  
447,551.—CLOTHES-DRIER—Ansley & Boyd, Medical Lake, Wash.  
447,423.—WINDOW SCREEN—Benoit & Pillot, San Jose, Cal.  
447,746.—ELECTRIC ARC LAMP—L. H. Buchanan, Pasadena, Cal.  
447,747.—ICE-CREAM FREEZER—J. A. Buffer, S. F.  
447,737.—CAR COUPLING—R. McMahon, Seattle, Wash.

The following brief list by telegraph, for Mar. 10, will appear more complete on receipt of mail advices: California—Benjamin B. Allen, assignor to himself, W. H. Wilson and E. Weishaupt, Hanford, whiffletree; A. B. Frederiek Babbie, S. F., bed; Louis M. Erh, S. F., assignor to Reversible Chair Company of California, coin-operated reversible-seat chair; Henry C. Forgason, assignor of one-half to H. G. Comstock, Oakland, electric arc lamp; David W. Gish, San Jose, bale tie fastener; Edward Hardee and M. P. Fleichman, S. F., cane music stand and music holder; Clement Hazard, S. F., cable grip; David Johnson, S. F., basket hamper; Truman D. Keith, South Pasadena, wrench; John C. Ludwig, assignor of seven-eighths to H. T. Compton, L. F. Montague, L. Paige, G. H. Roe, S. F., A. T. Ayers, W. C. Mason, Oakland, and H. J. Ayres, Akron, O., apparatus for intensifying electrical undulations; Charles E. Mason, S. F., lock valve and faucet; James G. McAlpine, assignor of three-fourths to J. G. and G. S. McAlpine, Bakersfield, wheel; Ernest L. Ransome, S. F., manufacture of bricks; William Stephens, Santa Rosa, current wheel; William Stephens, Redding, and J. Mott, Siskiyou county, Cal., car replacer; Edward B. Strong, S. F., case for maps or sheets; Amos Westwood and P. S. Mallon, Oakland, said Westwood assignor to said Mallon, decorating glass and porcelain; Benjamin P. Whitney, assignor of one-half to W. F. Welkenden, Los Angeles, cultivator; William H. II. Wright, S. F., assignor of one-half to G. W. Lewis, Oakland, spring seat for vehicle.

Oregon—John N. Bunch, Eugene, waebing machine; John Dahlquist, Portland, and O. N. Dahlquist, Tucker, Wash., water-power wheel; Mathias Jensen, assignor of one-half to Jensen Can Filling Machine Company, Astoria, can-capping machine; Tice S. Riddell, Eugene, fence post; Harold A. Salisbury, Vinson, clasp for connecting timbers.

Washington—Willis and W. Carter, Spokane Falls, rotary engine; Frederick E. Lux, Walla Walla, self-cleaning weed cutter.

NOTE.—Copies of U. S. and Foreign patents furnished by Dewey & Co., in the shortest time possible (by mail or telegraphic order). American and Foreign patents obtained, and general patent business for Pacific Coast inventors transacted with perfect security, at reasonable rates, and in the shortest possible time.

RAMIE.—The California Ramie Co. has incorporated. Directors—William and R. Lichtenberg, William H. Murray, H. Francis, Arnold Becker, J. W. Lucas and Joseph F. Forderer. Capital stock, \$100,000, of which \$75,000 has been subscribed. Its object will be the cultivation of the ramie plant, reducing its fiber and preparing the same for market.

Let Us Know

If you fail to get this paper. We prefer to send missing Nos. Write soon and to the office direct. It is important that we should know when the paper miscarries.

BACK FILMS OF THE PACIFIC RURAL PRESS (unbound) can be had for \$2.50 per volume of six months. Per year (two volumes) \$4. Inserted in Dewey's patent binder 50 cents additional per volume.

The Scientific Kit of Tools

FOR THE FARM, DAIRY, ORCHARD OR SHOP.



EVERY TOOL GUARANTEED. And we offer this

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Which is hardly half the regular prices, and none can afford to be without this set. Orders by mail promptly filled. Address

G. G. WICKSON & CO., Nos. 3 & 5 Front St. San Francisco. 346 N. Main St., Los Angeles. 141 Front St., Portland.

SHEEP AND WOOL.

The Tariff on Mohair.

EDITORS PRESS:—A very important decision has been recently rendered by the Board of General Appraisers regarding goat hair.

The old tariff had a duty upon mohair, i. e., fleece of the Angora, and also upon alpaca and similar animals, but there was no duty upon the common goat hair.

Under the reading of the new tariff, all goat hair must pay a duty of 12 cents a pound, and naturally, the importers of common goat hair made a protest against this. It was necessary for the appraisers to decide that either all goat hair was dutiable at 12 cents a pound, or else all goat hair was free. This latter would have affected mohair and was of vital interest to the mohair industry.

The decision has just been rendered (as we have previously said) which makes all goat hair dutiable at 12 cents a pound, and while this is unquestionably very unjust to the importers of common goat hair, yet it removes a great danger to the mohair industry.

Manufacturers have been staying out of the market waiting to see the outcome of this controversy, and the result has been a weakness in prices.

The decision just rendered will strengthen values again, and we expect to see a better demand for mohair in the next 60 days than we have had during the 60 days past.

The grower should bear in mind that the foreign market has dropped, and this has its effect, but there still exists a good demand for domestic mohair at remunerative prices.

Our market is firm on your wools, and the stock considerably depleted. Our arrangements for the handling of next season's clip of wool and mohair are complete, and we have reasons to anticipate an active market and substantial prices, as the present outlook is not favorable to any declining tendency in values.

We will write you from time to time on any important topic relating to wool and its dependencies which may interest you.

New York. WM. MACNAUGHTAN'S SONS.

A GIGANTIC ENTERPRISE.

The Central Milling Company of San Francisco.

There is at least one industry in this State that has been thoroughly developed by the aid of immense capital, coupled with energetic enterprise, and that is our flouring-mills. No State in the Union can surpass California in the manufacture of flour, and in the front rank of our representative establishments is the Central Milling Company, with its thirteen fine mills and a cash capital of half a million dollars. This company was incorporated Nov. 17, 1886, with that well-known and enterprising capitalist, the late C. L. Dingley, Sr., as its president. Eleven mills were purchased outright, and since that time two were bought and transformed into a fine plant at Paso Robles, while within the past year the fine large mill at Gridley has been added to the list, and the combined daily capacity of these mills is something enormous. At a recent date the extensive manufacture of "Drifted Snow Flour" has been engaged in by the company and already has not only become a household word, but a household necessity. It is something of superior excellence, purity and sweetness, where once tested always desired. Every good housewife is anxious to present a tempting loaf at her table. With "Drifted Snow Flour" this is invariably accomplished.

The Board of Directors of this company are H. M. Leonard, F. E. Spencer, D. B. Moody, John R. Cross, Moses Hopkins, R. M. Shackelford and C. L. Dingley, Jr., the latter being the manager of the large supply house, No. 29 Steuart street, and inheriting the sterling qualities of his father, will continue to achieve the marked success of the past.

Among the stockholders are some of the wealthiest and most influential residents of California, who take a special interest in leaving nothing undone, financially or otherwise, to extend the fame of California flour to the other ends of earth. It is the enterprising development of such resources as this that brings wealth, happiness and prosperity to every commonwealth, and were our diversified industries only half so well fostered and developed, California would occupy a far more advanced position in the commerce of the world than she does at the present time.

Dispersion Sale.

Owing to the death of one of the partners, we will sell our herd of

THOROUGHbred HOLSTEIN CATTLE

At Less than Cost Prices.

Easy terms will be given with approved security, either for the entire herd or for individuals. These animals are ALL REGISTERED, and were especially selected for their superior breeding.

No better opportunity has ever been offered than this for any one wishing to engage in the business of raising Holstein Cattle.

For price list and particulars, address

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"Bonnie Brae" Farm, HOLLISTER, CAL.

JAMES M. HAVEN. THOMAS E. HAVEN,

Notary Public.

HAVEN & HAVEN,

ATTORNEYS AND COUNSELORS AT LAW,

No. 530 California Street,

Telephones No. 1746. SAN FRANCISCO, CAL.

Prang's Easter Cards and Souvenirs.

Regarding Prang's new line of Easter goods, it may be safely asserted that the refined taste, chaste and delicate designs and appropriate selections, which in the past have secured their productions such pre-eminent and popular favor, will be found even in a greater degree in the line they are just presenting for the coming season. In variety, beauty and richness of design, their list reflects the best thought and care of American artists of recognized standing.

This is expressed not alone in the cards but also in the handsomely and tastefully gotten-up tokens for Easter in books and booklets, in hand-painted and decorated novelties, in satin art prints made up in silk, satin and plush, including novelties in sachets, easel scarfs, mouchoir cases, portfolios, realistic shape mounts, etc., in all of which their line is unsurpassed, presenting a full variety of prices from the comparatively inexpensive to the costliest.

We have received from their local agent, Mr. Joseph H. Dorey, 527 Commercial St., S. F., a handsome collection of Messrs. Prang & Co.'s Easter publications, and can commend them both for sentiment and beauty.

NEWSPAPER AGENTS WANTED.

Extra inducements will be offered for a few active canvassers who will give their whole attention (for a while at least) to soliciting subscriptions and advertisements for this journal and other first-class popular newspapers. Apply soon, or address this office, giving address, age, experience and reference. Special inducements to old agents.

DEWEY & Co., Publishers,  
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9	10	11	12	13	14	15	16

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25	26	27	28	29	30	31	32

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In 5, 10, 20 or 40 acre tracts, one-half mile from city limit of Tulare, one of the most prominent-growing towns in the State, at prices ranging from \$40 to \$80 per acre. The land lies in the northerly limit of the Artesian Belt, and is also easily supplied with ditch water. Soil, good and favorable for vines, fruit, vegetables, etc. Good surface water at 10 to 12 feet.

Liberal terms of payment to those who build or plant at once.

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OF CALIFORNIA,

SAN FRANCISCO, CAL.

INCORPORATED APRIL, 1874.



Authorized Capital.....\$1,000,000  
Capital paid up and Reserve Fund 800,000  
Dividends paid to Stockholders.. 627,500

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I. C. STEELE.....Vice-President  
ALBERT MONTPELLIER.....Cashier and Manager  
FRANK McMULLEN.....Secretary

General Banking. Deposits received, Gold and Silver. Bills of Exchange bought and sold Loans on Wheat and country produce a specialty.

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## Breeders' Directory.

Six lines or less in this Directory at 50c per line per month.

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**HENRY HAMILTON**, Westley, Cal., breeder of Kentucky Jacks and Jennies, Draft Horses and Holstein Cattle. Jacks, Horses and Mules for sale.

**J. R. ROSE**, Lakeville, Sonoma Co., Cal., breeder of Thoroughbred Devons, Roadsters and Draft Horses.

**P. PETERSEN**, Siles, Colusa Co., Importer & Breeder of registered Shorthorn Cattle. Young bulls for sale.

**WILD FLOWER STOCK FARM**, Fresno Co. A. Heilbron & Bro., Props., Syc. Breeders of thoroughbred strains and Cruikshank shorthorns; also Registered Herefords; a fine lot of young bulls in each herd for sale.

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Italian Queens, \$2.50 each; Black Queens, \$1 each. Swarms from \$2.50 each; Smoker, \$1. Comb Foundation, \$1.25 per pound; V-groove Sections, \$4 per 1000 Comb Honey wholesale and retail; Hives, etc. **W. STYAN & SON**, The Homestead Apiary, San Mateo, Cal.

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BREEDER OF REGISTERED Shorthorns, Aberdeen, Angus and Jersey Cattle. Young Stock for Sale. Correspondence solicited. **G. W. DIMICK, Hubbard, Oregon.**

## MECHAM & FRITSCH,

—IMPORTERS AND BREEDERS OF—

## Red Polled Cattle.

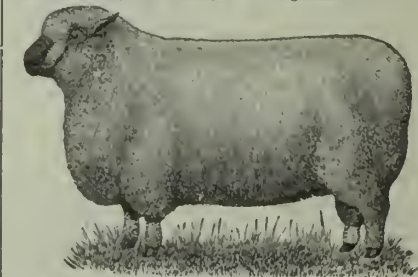
We have 19 head of Imported Stock.

YOUNG BULLS and CROSSBREDS ON DEVONS for Sale.



### H. MECHAM,

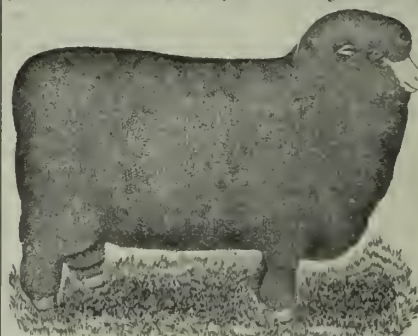
Importer and Breeder of Shropshire Sheep. They were all imported from England in '83, or bred direct from Imported Stock, and all registered.



### H. MECHAM,

Breeder of American Merino Sheep Without Horns.

The only flock in the United States. When we bought our sheep East 20 years ago, among them was a ram without horns. He grew to be a fine large sheep, shearing at 2 years old, a 12 months' fleece, 35 lbs. of long white wool.



I have bred from him and his get ever since and have never made an out-cross and never used the same ram but one year on the same flock. My rams at two years old will weigh from 160 to 180 lbs. have a strong constitution, without wrinkles, and will shear on an average about 25 lbs., a 12 months' fleece, of long white wool. Rams and Ewes for sale. P. O. Address, **Stony Point, Sonoma Co., Cal.** R. R. Station, Petaluma.

## THOROUGHBRED JACKS!



A FEW MAGNIFICENT JACKS BRED FROM THE finest strains of blood from Kentucky. Correspondence solicited. **L. U. SHIPPEE**, Stockton, Cal.

## DR. A. E. BUZARD, VETERINARY SURGEON,

Member of the Royal College of Veterinary Surgeons, London, England.

GRADUATED APRIL 22, 1870.

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Veterinary Surgeon. Hospital—510 Golden Gate Ave., bet. Polk St. & Van Ness Ave. Telephone 2287. The latest improved Price Operating Table at the Hospital.

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To find out how she did it send 4c in stamps for 30-page colored catalogue of Incubators, Thoroughbred poultry and Poultry appliances to the  
**PACIFIC INCUBATOR CO.,**  
317 Castro Street, Oakland, Cal.

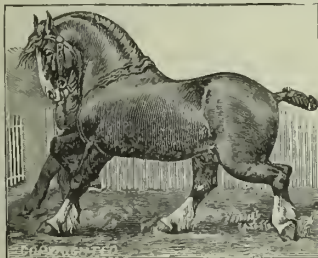
## DROP IT

If you are in any business not paying you, drop it, and buy a Petaluma Incubator. **PRICES REDUCED.** A large 32-page Illustrated Catalogue describing Incubators, Brooders, Brooding Houses, How and What to Feed, How Long to keep them in the Brooder, Drinking Fountains, Diseases and their Cures, Egg Testers, Bone and Shell Mills, Wire Netting, Thermometers, Lath, Fencing, Flood's Roup Cure, "Cresosone," the only thing that will exterminate vermin among chickens, in fact, more information than is given in many 25-cent books. Sent to any address on receipt of four cents in stamps.  
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ALWAYS ON HAND AND FOR SALE, IMPORTED home-bred registered Clydesdale Stallions and Mares, weighing from 1600 to 2000 lbs. each, from the most noted families. Largest and finest Stud of Clydesdales west of the Rocky Mountains. Also Holstein Friesian Cattle and Dish-faced Berkshire Pigs, all registered, at figures 50 per cent lower than any other in the State for the same quality. All open to Veterinary's examination. Stock all acclimated.  
Call on or address **H. P. MOHR, MOUNT EDEN,** Alameda Co., Cal., 20 miles southeast from San Francisco. Take train for Haywards Station on broad gauge or Mount Eden on narrow gauge railroad. Gentlemen met by appointment at either station. Telegrams, "Mohr, Mount Eden."

**H. E. CARPENTER,**  
Veterinary Surgeon,  
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RESIDENCE AND VETERINARY INFIRMARY:  
331 Golden Gate Avenue, San Francisco  
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No risk in throwing Horses. Veterinary operating table on the premises.

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A **SPLENDID OPPORTUNITY** IS OFFERED TO A respectable gentleman who wishes to acquire a thorough knowledge of the Veterinary Profession in all its branches. For terms apply to **DR. A. E. BUZARD,** M. R. C. V. S. L., 11 Seventh Street, San Francisco.

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Short Horn Cattle and Draft Horses.  
Catalogues and Prices on application to  
**ROBERT ASHBURNER,**  
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## THE SUCCESS TRAP

Will hold Animals from a Gopher to a Coyote.  
Price for 30 days, postpaid, 25 cents. One dozen, \$2.00  
**SUCCESS TRAP CO.,**  
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## THE GIANT POWDER COMPANY.

**PATENT OWNERS OF**  
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Best and Strongest Explosives in the World.  
The Only Reliable and Efficient Powder For Stump and Bank Blasting. From 5 to 20 pounds blows any Stump, Tree or Root clear out of ground at less cost than grubbing. Railroaders and Farmers use no other.  
As other makers IMITATE our Giant Powder, so do they Judson, by Manufacturing a second-grade, inferior to Judson.  
**BANDMANN, NIELSEN & CO.,** General Agents, San Francisco.

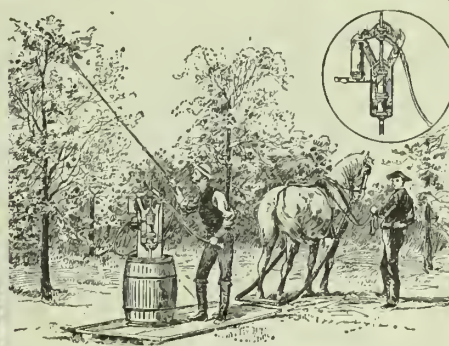
## GRANGERS' BUSINESS ASSOCIATION, SHIPPING AND COMMISSION HOUSE.

OFFICE, 108 DAVIS STREET, SAN FRANCISCO, CAL.  
Warehouse and Wharf at Port Costa.  
**CONSIGNMENTS OF GRAIN, WOOL, AND ALL KINDS OF PRODUCE SOLICITED.**  
Money advanced on Grain in Store at lowest possible rates of interest.  
Full Cargoes of Wheat furnished Shippers at short notice.  
**ALSO ORDERS FOR GRAIN BAGS, Agricultural Implements, Wagons, Groceries and Merchandise of every description solicited.**  
**E. VAN EVERY, Manager.** **A. M. BELT, Assistant Manager**

## SPRAY PUMPS!

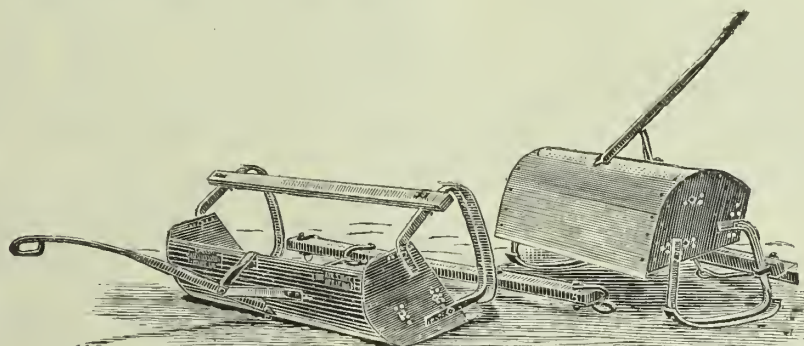


**Star Spray Pump.**  
WITH BAMBOO EXTENSION ALL FITTED UP, COMPLETE WITH HOSE, BARREL AND SPRAY NOZZLE. These cuts show in faithful operation our Gould's and Star Spray Pumps. They are utilized for spraying fruit Trees, Orange Groves, Vines, and in fact, all trees or shrubbery infested with the destructive insects which infest and do so much injury to Orchards, Vineyards, Orange Groves, etc. They are made entirely of brass, with the exception of frame and handle, and are strong and heavy; the valves being made entirely of metal and rubber, and will not be affected by the corrosive solutions such as Caustic Soda Acid, Lye, or any other solution that may be used to kill the destructive insect. Send for Special Circular and Prices of Spray Pumps.  
**NOTICE.**—ONGERTH'S LIQUID TREE PROTECTOR is the best Spray for killing Red Scale, Black Scale, White Cushion Cottony Scale, San Jose Scale, or any other insect. Send for Special Circular.



**The Goulds Spray Pump.**  
312 and 314 Market Street, junction of Bush, **SAN FRANCISCO, CAL.**

**WOODIN & LITTLE.**

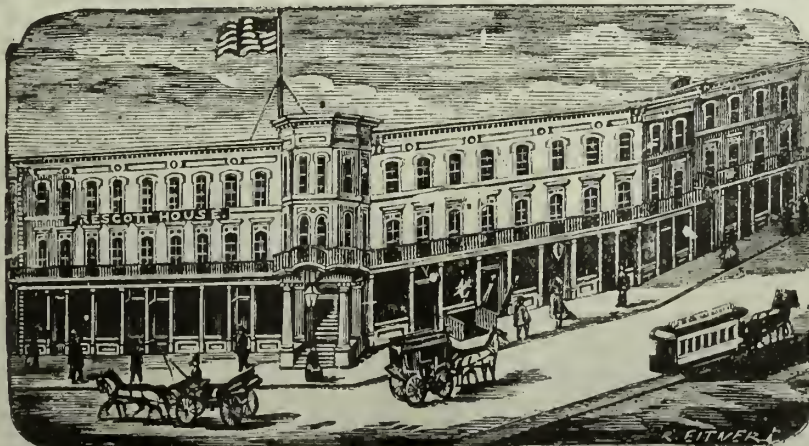


## FRESNO CANAL, DITCHING AND LEVELING SCRAPERS.

**FIREBAUGH, CAL. (Poso Farm), November 8, 1889.**  
MR. JAS. PORTEOUS, Fresno, Cal.—DEAR SIR: In answer to yours of 6th inst., will say that I have found your new style four-horse Scraper the best all-round Scraper I have yet tried. Respectfully yours,  
**J. W. SCHMITZ, Supt. Miller & Lux.**

SEND FOR CATALOGUE AND PRICE LIST.  
**FRESNO AGRICULTURAL WORKS**  
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**S. W. Corner Kearny and Montgomery Avenue, San Francisco.**  
Free Coach to and from the House. **J. W. BECKER, Proprietor.**

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## WETMORE BROTHERS, Commission Merchants.

**GREEN AND DRIED FRUIT, NUTS, PRODUCE, POULTRY, EGGS, HIDES, PELTS, ETC.**  
CONSIGNMENTS SOLICITED. PROMPT RETURNS.  
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## MOORE, FERGUSON & CO., WOOL, GRAIN, FLOUR

General Commission Merchants,  
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Members of the San Francisco Produce Exchange  
Personal attention given to Sales and Liberal Advances made on Consignments at low rates of interest.

## DALTON BROS., Commission Merchants

—AND DEALERS IN—  
**CALIFORNIA AND OREGON PRODUCE,**  
Green and Dried Fruits,  
Grain, Wool, Hides, Beans and Potatoes.  
Advances made on Consignments.  
308 & 310 Davis St., **San Francisco**  
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Consignments Solicited.

## ALLISON, GRAY & CO.

—SUCCESSION TO—  
**LITTLEFIELD, ALLISON & CO.,**  
501, 503, 505, 507 and 509 Front Street  
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**GREEN and DRIED FRUITS.**  
Poultry, Eggs, Game, Grain, Produce and Wool.

(ESTABLISHED 1854.)  
**GEORGE MORROW & CO.,**  
**HAY and GRAIN**  
COMMISSION MERCHANTS,  
39 Clay Street and 28 Commercial Street  
**SAN FRANCISCO, CAL.**  
SHIPPING ORDERS A SPECIALTY.

**EUGENE J. GREGORY, [Established 1852.] FRANK GREGORY.**  
**GREGORY BROTHERS CO.,**  
Commission Merchants,  
PACKERS AND SHIPPERS OF  
**CALIFORNIA FRUIT AND PRODUCE.**  
126 and 128 J St., - **Sacramento, Cal.**  
San Francisco Office, 313 Davis St.

**EVELETH & NASH,**  
COMMISSION MERCHANTS  
And Dealers in Fruit, Produce, Poultry, Game, Eggs  
Hides, Pelts, Tallow, etc., 422 Front St., and 221, 223,  
225 and 227 Washington St., San Francisco

**WITTLAND & FREDRICKSON,**  
Commission Merchants.  
All kinds of Green and Dried Fruits  
Consignments Solicited. 324 Davis St., S. F.

## Go to American Exchange Hotel.



The above Hotel is situated in the midst of the Banking and Commercial houses of the city, and is by far the most home-like and desirable Hotel to stop at.  
**CHAS. & WM. MONTGOMERY, Prop'rs.**

## HORTON & KENNEDY still continue to supply the famous ENTERPRISE WINDMILLS.

These Windmills have been advertised in and known by the readers of the PACIFIC RURAL PRESS for over 20 years. The Best is the Cheapest. Write for circulars and prices.

**HORTON & KENNEDY,**  
Livermore, Alameda Co., Cal.  
San Francisco Agency, JAMES LINFORTH, 87 Market St.



## S. H. MARKET REPORT

## Market Review.

## DOMESTIC PRODUCE, ETC.

SAN FRANCISCO, March 11, 1891.

The weather continues favorable for growing crops, which is gradually restoring confidence. This feeling is strengthened by the higher ranges of values for all kinds of cereals. The ranges are the highest since the disastrous wheat deal nearly four years ago. The Eastern and foreign wheat markets show quite an advance the past week. The following is to-day's cablegram:

LIVERPOOL, March 11.—Wheat—Firm. California spot lots, 85 3/4d; off coast, 41s 6d; just shipped, 40s 6d; nearly due, 41s 3d; cargoes off coast, firm; on passage, quiet; Mark Lane wheat, firm; English country markets, generally 6d to 1s dearer; French, firm; wheat and flour in Paris, quiet; weather in England, thawing.

## Liverpool Wheat Market.

The following are the closing prices paid for wheat options per cwt. for the past week:

	Mar.	April.	May.	June.	July.	Aug.
Thursday.....	71 1/4d	80d	80 1/4d	71 1/4d	71 1/4d	71 1/4d
Friday.....	80 1/4d	80 1/4d	80 1/4d	71 1/4d	71 1/4d	71 1/4d
Saturday.....	80 1/4d	80 1/4d	80 1/4d	80 1/4d	80 1/4d	80 1/4d
Sunday.....	80 1/4d	80 1/4d	80 1/4d	80 1/4d	80 1/4d	80 1/4d
Monday.....	80 1/4d	80 1/4d	80 1/4d	80 1/4d	80 1/4d	80 1/4d
Tuesday.....	80 1/4d	80 1/4d	80 1/4d	80 1/4d	80 1/4d	80 1/4d

The following are the prices for California cargoes for off coast, nearly due and prompt shipments for the past week:

	O. C.	P. S.	N. D.	Market
Thursday.....	40-00	38-00	33-00	Held high
Friday.....	40-00	38-00	33-00	Held high
Saturday.....	40-00	38-00	33-00	Held high
Sunday.....	40-00	38-00	33-00	Held high
Monday.....	40-00	38-00	33-00	Held high
Tuesday.....	40-00	38-00	33-00	Held high

## Eastern Grain Markets.

The following shows the closing prices of wheat at New York for the past week, per bushel:

	Mar.	April.	May.	June.	July.	Aug.
Thursday.....	110 1/2	107 1/2	106 1/2	102 1/2	98 1/2	95 1/2
Friday.....	112 1/2	109 1/2	108 1/2	104 1/2	100 1/2	97 1/2
Saturday.....	112 1/2	109 1/2	108 1/2	104 1/2	100 1/2	97 1/2
Sunday.....	112 1/2	109 1/2	108 1/2	104 1/2	100 1/2	97 1/2
Monday.....	112 1/2	109 1/2	108 1/2	104 1/2	100 1/2	97 1/2
Tuesday.....	112 1/2	109 1/2	108 1/2	104 1/2	100 1/2	97 1/2

The closing prices for wheat have been as follows at Chicago for the past week, per bushel:

	Mar.	April.	May.	June.	July.	Aug.
Thursday.....	99 1/2	99 1/2	99 1/2	99 1/2	99 1/2	99 1/2
Friday.....	100 1/2	100 1/2	100 1/2	100 1/2	100 1/2	100 1/2
Saturday.....	100 1/2	100 1/2	100 1/2	100 1/2	100 1/2	100 1/2
Sunday.....	100 1/2	100 1/2	100 1/2	100 1/2	100 1/2	100 1/2
Monday.....	100 1/2	100 1/2	100 1/2	100 1/2	100 1/2	100 1/2
Tuesday.....	100 1/2	100 1/2	100 1/2	100 1/2	100 1/2	100 1/2

NEW YORK, March 11.—Wheat—\$1.12 1/2 for March, \$1.09 1/2 for May, \$1.04 1/2 for July, \$1.01 1/2 for August, and \$1.03 1/2 to \$1.03 1/2 for December.

CHICAGO, March 11.—Wheat—\$1.01 1/2 for May and 97 1/2 for July.

## Eastern Peach Crop Prospects.

New York Fruit Trade Journal, Feb. 28: We have received the following from a leading Baltimore house:

There is considerable uneasiness manifested in this locality concerning the peach crop of 1891. We have had excessively warm weather and the past week has been more like June than February. It is safe to say that so far there has been no damage whatever done to the peach crop, but if we have a continuance of such weather for a week or two longer, serious damage will undoubtedly result. What we want is cold weather and plenty of it to insure a good peach crop this season. It would be an almost fatal blow to Maryland and Delaware peach-growers to have another failure this year. Every one connected with the dried fruit and canning industries is aware of the necessity of a full crop, and it would be a bitter disappointment if their hopes were not realized.

## Raisins.

NEW YORK, March 4.—The Commercial Bulletin says: Reference has been made in this column lately to sales of California bag raisins for seemingly low prices. This plain statement appears to have aroused some criticism. We find, however, the reports have correctly reflected the actual transactions. It would appear, moreover, the evidences of undercurrent weakness to the market were not misleading. To the contrary, we learned Tuesday of sales of boxed fruit at prices relatively as low as any that have been quoted for sound raisins in bags the past week. Strictly standard 3-crown loose are held laterally at \$1.65 per box, to the extent of several hundred boxes at \$1.55, and are now offered at the latter price. A brand of 2-crown that would compare favorably with some goods of the 3-crown mark were disposed of at \$1.20 per box. We find evidence of indiscriminate forcing of goods upon the market, but it is patent that some holders have become wearied and are inclined to exchange their raisins for current funds. As a matter of fact we hear from a reliable source that some packers have withdrawn the limits on goods in stock here.

NEW YORK, March 8.—Raisins go out freely at easy prices. Two crown bags 3@4c; three crown 4 1/2@5 1/2c; latter extreme fancy; boxed three crown 5 1/2c; others 4 1/2@4 1/2c. Useful twos can be had \$1.10; selections \$1.20. Layers nominal. There are over 200,000 boxes Valencia in the market entirely neglected by the run of California sacks. The advertisement is an expensive one for the owners, but the low prices have introduced our rich-fleshed bulk Californians to a large line of new buyers, who now comprehend their merits and will retain their use, and it is not likely that quotations will be always in the muddled situation that attends this season's unusually large supply of wide-range quality wherein good grades suffer for bad.

## Eastern Wool Markets.

NEW YORK, March 6.—Bradstreet's will say: All the leading wool markets have been comparatively quiet during the past week. Manufacturers are well supplied with stock and are prepared to wait for lower values. It is generally expected that with the arrival of the wool bought at the London wool sales, choice domestic fleeces will weaken. There is still a fair demand for good staple lots, particularly Territories. Large sales of Australian wools have caused a quiet feeling in X and XX fleeces, and buyers can now secure slight concessions in these grades. Pulled wools are still in active demand and

stocks are said to be much reduced since the beginning of the year. The supply of these wools is not as large as it has been in previous years and values are higher in consequence. Stocks of one-quarter and three-eighths blood wools are very light and the demand continues strong. The distribution of these wools in particular, and all grades in general, has been unusually large. The mills have increased their consumption of wool to meet the greater demand for domestic goods. Carpet wools are quieter, but values are unchanged. Manufacturers are said to have an ample supply for the present.

NEW YORK, March 8.—The late character of the wool market has not notably varied. Buying has become somewhat tamer, but holders are not anxious, as stocks are small. Good mixing grades of foreign continue active. Utah lamb, 22@24c; 20,000 lbs XX Ohio, 34c; 5000 lbs extra pulled, 31c. Boston, quiet. Sales—565,000 lbs foreign and 1,521,000 lbs domestic at 19c; fine-washed fleeces, firm. Philadelphia—Trade is moderate; fair demand for delaine. Stocks and supplies are small. None were pressed.

## Decrease in the Wool Clip.

BOSTON, March 7.—The Commercial Bulletin will publish to-morrow statistical articles based upon the Agricultural Department reports, in which it is shown that the total number of sheep in the country to-day is 43,431,134, against 44,336,072 in 1890, and consequently that the wool clip will be 5,000,000 pounds less than last year, when it was 276,000,000 pounds.

## Dried Fruits.

NEW YORK, March 6.—Recently there were reports of inquiries from Chicago for California peaches. Yesterday a Chicago firm offered a line at prices on a parity with those current here.

NEW YORK, March 8.—Sack prunes, 10@10 1/2c; boxes, 10 1/2c obtained, seventies and eighties; no small in stock. Apricots are dull, 16c for best boxes. Choice bleached peaches declined to 15c; Chicago lots seeking market here. Dried apples tending lower offerings; sun-dried irregular in quality; best have to be toned up with State for use; this causes slow buying of Pacifics.

## Southern Fruit Crops Ruined.

NEW ORLEANS, March 9.—A freeze on the 26th of February did considerable damage to prospective fruit crops in this State. On Saturday afternoon hail fell, and Saturday night rain fell in torrents, causing greater damage by washouts and overflowing low lands than has been done in many years. Last night there was another freeze, this time preceded by rain, which finished up the peach-blossoms, and very few peaches, if any, will be produced this season.

## Peanut Prospects East.

New York Fruit Trade Journal, Feb. 28: In reply to a request we receive the following from a leading firm of cleaners in Virginia: "They have reached the lowest prices ever known for hand-picked goods and at present prices it is safe to speculate, as they are below cost of production, that there is an abundant supply in farmers' hands this season; the low values will increase the consumption enormously; any disaster to the coming crop would run up prices fifty to one hundred per cent. The trade is taking the goods freely."

## Miscellaneous.

NEW YORK, March 8.—Lima Beans—Abundant; all grades favor buyers; choice, \$2.70. Honey—Fairly firm. Maple Sugar—Season opened. This reduces some demand for table honey. Fair business in hops; home trade chiefly buying Pacifics. Quotations continue uniform and unchanged; 30c being the extreme for all best. There is a stronger feeling in hides. The late activity in leather brings a large attendance of tanners, but the business is mainly in cheap sorts. California dry are quoted at 13 1/2c.

## Local Markets.

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\$1.50 1/2; 200, \$1.50 1/2; 100, \$1.50 1/2; 300, \$1.50; 100, \$1.49 1/2; 900, \$1.49 1/2; 100, \$1.49 1/2. Afternoon Session: Buyer 1891—1700 tons, \$1.50 1/2; 200, \$1.50 1/2; 600, \$1.51. Buyer season—300 tons, \$1.49 1/2; 300, \$1.50. Buyer 1891, after August 1st—100 tons, \$1.46 1/2 cwt.

## Market Information.

## Produce Receipts.

Receipts of produce at this port for the week ending March 10th, were as follows:

Flour, qr. sks. ....	108,846	Middlings, sks. ....	2,365
Wheat, cts. ....	472,251	Alfalfa, " ....	143
Barley, " ....	23,103	Chicory, bbls. ....	156
Rye " ....	1,034	Broomcorn bbls. ....	10
Oats " ....	10,654	Hops, bbls. ....	10
Corn " ....	1,085	Wool, " ....	148
*Butter " ....	762	Hay, tons. ....	1,944
do bxs ....	877	Straw " ....	108
do bbls ....	607	Wine, gals. ....	186,460
do kegs ....	1,236	Brandy, " ....	7,200
do tubs ....	156	Raisins, bxs. ....	101
do 1/2 bxs ....	267	Honey, cs. ....	400
†Cheese, cts. ....	607	Walnuts, sks. ....	73
do bxs ....	267	Flaxseed, " ....	73
Eggs, doz ....	73,590	Mustard, " ....	73
do " Eastern. ....	73,590	Almonds, " ....	73
Beans, cts. ....	7,874	Peanuts, " ....	73
Potatoes, sks ....	27,417	Popcorn, " ....	73
Onions, " ....	1,236	Beet sugar, bbls. ....	73
Bran, " ....	11,833	do do sks. ....	73
Buckwheat " ....	11,833	do do sks. ....	73
*Overland " ....	11,833	do do sks. ....	73
†Overland " ....	11,833	do do sks. ....	73

## Cereals.

H. Kains Jackson in London Farmer, Feb. 16: Some rain and temperate winds have carried off the coldness of the subsoil, and evaporation and radiation where the plow has been moving, have given the land surface a nice friable tilth favorable to spring seeding. Beans, peas, oats, and barley may very likely go in well and have a good start, with the help of warm April showers; but for wheat the acreage that can now be added must only be insignificant. What the total acreage may be we ought to learn from the new Agricultural Department in June, without waiting until September. It is not even now too early to say that whatever the produce per acre next harvest may be, the crop can only be the yield on a small breadth planted with wheat. Markets, however, are scarcely affected by the prospects of the home 1891 harvest. They are under the influence of the past, and are becoming somewhat sensitive to supplies, week by week. Of course stocks are decreasing, and the estimate of last week's supply against requirements debits 70,000 qrs. as taken from granary reserves.

London Agricultural Gazette, Feb. 16, summarizes foreign advices as follows: Latest advices from the Australasian colonies give no essentially fresh information; the South Australian wheat crop is expected to be smaller than that of last year, as also that of New Zealand, while that of Victoria may be larger, and non-exporting colonies are something to be feared. Samples of the new-crop wheats of the Argentine Confederation, as received in Liverpool, are stated to be of excellent quality. The wheat crops in Chili are reported to be spoiling for want of labor to secure them, resulting from the revolution in the country. Some sales of Manitoba wheats are said to have been made for this country, because they were not expected to remain sound with the advent of warmer weather. Severe weather is again reported from South Russia. In the western countries of Europe there has been a cold spell. Crop prospects are so variously reported that they cannot, at present, be safely discounted. Grain markets are steadier, especially in France, where the comparatively small offerings cause some uneasiness to the trade and stimulate the purchase of foreign grain.

A leading New York exchange says: The scarcity of fine wheat is a feature of the season, quite apart from the small bulk of the wheat crop, the following figures in relation to which are now officially published, giving the yield and acreage for each year since 1880:

Years.	production Bushels.	Total area of crops.	Average value per acre.
1880.....	498,459,868	37,986,717	\$12 48
1881.....	383,280,090	37,709,020	12 12
1882.....	504,185,470	37,067,194	11 09
1883.....	421,086,160	36,455,593	10 52
1884.....	512,765,000	36,475,885	8 38
1885.....	357,112,000	34,180,246	8 95
1886.....	457,218,000	36,806,184	8 54
1887.....	456,329,000	37,641,783	8 25
1888.....	415,868,000	37,336,138	10 32
1889.....	497,560,000	38,123,859	9 98
1890.....	399,262,000	36,087,154	9 28
Average 11 yr's.			
'80 to '90.....	445,110,508	37,170,798	9 91
'80 to '89.....	449,695,359	37,279,162	9 97
'70 to '79.....	312,152,728	25,187,414	13 00

From these figures it will be seen that both yield and acreage are slowly declining in the United States, while the profits have fallen below \$10 per acre. With the decline in the price of silver came the large decline in the price of wheat, as the above shows.—COMMERCIAL EDITOR RURAL PRESS.

The local wheat market has held to strong, advancing prices, closing the week at higher ranges than for three years. Patrons of the RURAL PRESS, who have acted upon our repeated warnings that the market must advance to good figures, have no cause to regret doing so. Our opinion was founded on the statistical position of the world's supply and the world's consumption, and also that silver legislation would bring about a higher range of cost for Indian and Russian wheat, which naturally would react in favor of American wheat. The better informed financiers are confident that the price of silver will not only go considerably higher but that the next Congress will remonetize it. English wheat-buyers are close students of the silver market, as is shown by the following from the Mark Lane Express of Feb. 23: "The market for Indian wheat, and in a measure that for Russian wheat also, is now reduced to a position of extreme uncertainty owing to the fluctuations in the price of silver. . . . The latest news of the American silver market is a trifle more reassuring than the earlier advices, but our own market for silver is a shade worse on the week. English farmers are becoming

increasingly impatient at the dependence of English market prices for wheat on the recondite operations of speculators in the precious metals." This indicates that English farmers are beginning to agitate in favor of remonetizing silver.

By reference to tonnage movement under "Miscellaneous," it will be seen that the engaged tonnage at this port is very large, while the tonnage on the way is about 100,000 tons register greater than at the like time in 1890.

Oregon and Washington advices are confirmatory of heavy shipments from Eastern Oregon and Eastern Washington to the East. These shipments are allowable owing to the lower (comparatively) freight rates to the East than they are to Pacific Coast ports. Not only are the freights comparatively less, but the markets in the Central and Eastern States are higher than are the export markets on this coast. Shipments to the East have tended to strengthen our market, owing to their easing us of a large surplus that otherwise would have been forced on us.

The stock of wheat in Salinas valley warehouses compares as follows: March 1, 1891, 15,185 tons, against 35,067 tons on Oct. 1, 1890.

The local barley market has made quite an up move under a good demand and light obtainable supplies. The cold rains have undoubtedly retarded the growth of the plant, which is apt to cause a late season, and if so, the surplus on this coast will be used up before the new-crop season. A fair idea of how fast the supply has gone into consumption is witnessed by the returns of stocks in the warehouses in Salinas valley. Returns on March 1st of this year give the total at 525 tons against 16,146 tons on October 1, 1890. Last year (1890) on March 1st the stock was 18,241 tons.

Oats have held to strong prices during the week. The uncertainty regarding the available surplus in Oregon and Washington is a disturbing factor in the market. For fully three months advices from up north have reported a light surplus, yet free receipts are still the order. The consumption is free. Corn shows more strength at a slight advance. Receipts are light, whether from bad roads or light available supply we are unable to state.

Rye and buckwheat are unchanged.

## Feedstuff.

There is a fair demand, considering the improved pasture, for ground feed. Bran and middlings are steady, while ground and rolled barley are strong. Feedmeal is also strong.

Hay maintains the strength heretofore reported. Choice grades are scarce. Nevada continues to send us fair supplies. Crop prospects continue of a most favorable character.</



tions, but for poor keepers and defective parcels the market is weak and low.

**Miscellaneous.**  
The poultry market is a shade lower for all kinds, except ducks, which are slightly higher.  
Seeds are weaker, outside of flax, which is steady.  
English mail advices, just to hand, report a strong, growing hop market, with the supply light. At the East, and on this coast, a strong bear influence is at work. An increased acreage is planted in this State, Washington and Oregon.  
In wool there is very little doing—being between seasons. Shearing will be late.  
Beans are well cleaned up. The demand is slack. To force a consignment, a shading in prices is necessary, but forced buyers have to pay full up.  
Exports by sea the past week aggregate as follows: Wheat, cts, Cork, 113,344; Havre, 192,436; Hull, 66,446; Liverpool, 23,658; Dunkirk, 151,421. Flour, bbls, Honolulu, 1100; Sydney, 230; Liverpool, 3875; Vladivostok, 3100. Barley, cts, Honolulu, 128. Rolled barley, cts, Honolulu, 1902. Beans, lbs, Honolulu, 2375; Victoria, 10,213. Hay, bbls, Honolulu, 1055. Wine, gals, New York, 50,004; Honolulu, 1374. Brandy, gals, New York, 1060. Sugar, lbs, Sydney, 448,000. Hops, lbs, Dunedin, 2727.

From the Commercial News of March 11th the following summary of tonnage movement is compiled:  
On the way to  
San Francisco.....260,887  
San Diego.....10,905  
San Pedro.....7,529  
Oregon.....27,931  
Puget Sound.....24,519  
Totals.....334,771  
In port at  
San Francisco, disengaged.....4 038  
" engaged for wheat.....78,685  
San Diego.....2,194  
San Pedro.....2,199  
Columbia River.....19,552  
Puget Sound.....  
Totals.....106,578  
To get the carrying capacity, add 65 per cent to the registered tons as given above.

From July 1, 1890, to March 6, 1891, the following are the exports from this port:  
Wheat, cts.....8,652,236  
Flour, bbls.....822,748  
Barley.....205,916  
Totals.....9,808,687  
Wheat, cts.....8,652,236  
Flour, bbls.....822,748  
Barley.....205,916  
Totals.....9,808,687

**Domestic Produce.**  
Extra choice in good packages fetch an advance on top quotations, while very poor grades sell less than the lower quotations.  
WEDNESDAY, March 11, 1891.  
**BEANS AND PEAS.**  
Bayo.....3 65 @ 3 80  
Butter.....3 00 @ 3 30  
Pea.....3 00 @ 3 30  
Red.....2 75 @ 3 00  
Pink.....2 30 @ 2 50  
Brazil.....2 75 @ 3 00  
Lima.....3 50 @ 3 80  
Wild Peas, hky.....1 15 @ 1 35  
do green.....2 00 @ 2 40  
do Niles.....1 60 @ 1 75  
Split.....43 @ 54  
BROOM CORN.  
Choice to Extra 70 @ 90 00  
Fair to Good.....52 @ 65 00  
Poor.....42 @ 47 50  
**CHICORY.**  
California.....51 @ 6  
German.....63 @ 6  
**DAIRY PRODUCE, ETC.**  
Butter  
Cal. Poor to fair, hky.....17 @ 20  
do good to choice.....19 @ 20  
do Giltedged.....22 @ 23  
do Creamery rolls.....23 @ 24  
CREAM.  
Cal. choice mild.....11 @ 12  
do fair to good.....10 @ 12  
do Gilt edged.....12 @ 12  
Young America.....11 @ 12  
N. York Cream.....13 @ 15  
Western.....11 @ 13  
EGGS.  
Cal. ranch, doz.....17 @ 19  
do do self'st'd.....18 @ 19  
do store.....17 @ 19  
**FEED.**  
Bran, ton.....14 50 @ 15 50  
Feedmeal.....30 00 @ 31 50  
Gr'd Barley.....31 00 @ 32 50  
Middlings.....17 50 @ 19 50  
Oil Cake Meal.....26 00 @ 28 00  
Manhattan Food.....100 lbs 7 50  
**HAY.**  
Compressed.....13 50 @ 19 00  
Wheat, per ton.....13 00 @ 17 50  
do choice.....18 50 @ 21 00  
Wheat and Oats.....10 @ 17 00  
Wild Oats.....12 50 @ 15 00  
Tame do.....12 00 @ 15 00  
Barley.....11 50 @ 14 00  
Barley and Oats.....11 50 @ 14 00  
Alfalfa.....11 00 @ 12 00  
Clover.....11 00 @ 12 50  
Straw bale.....60 @ 75  
**FLOUR.**  
Extra, City Mills.....4 40 @ 4 50  
do Co'try Mills.....4 10 @ 4 50  
Superfine.....3 10 @ 3 65  
**GRAIN, ETC.**  
Barley, feed, cts.....1 40 @ 1 42  
do choice.....1 45 @ 1 46  
do Brewing.....1 45 @ 1 47  
do do Choice.....1 50 @ 1 52  
do do Giltedged.....1 55 @ 1 56  
Buckwheat.....1 40 @ 1 55  
Corn, White.....1 35 @ 1 40  
Yellow, large.....1 35 @ 1 37  
do, small.....1 37 @ 1 40  
Oats, milling.....1 90 @ 1 95  
Surplus.....1 95 @ 2 00  
Feed, Choice.....1 85 @ 1 87  
do good.....1 80 @ 1 82  
do fair.....1 75 @ 1 80  
do Gray.....1 75 @ 1 80  
do Black.....1 75 @ 1 80  
Rye.....1 27 @ 1 32  
Wheat, milling.....1 56 @ 1 58  
Gilt edged.....1 56 @ 1 58  
do Choice.....1 55 @ 1 57  
do fair to good.....1 53 @ 1 55  
Shipping, choice.....1 53 @ 1 55  
do good.....1 51 @ 1 53  
do fair.....1 47 @ 1 50  
Sonora.....1 47 @ 1 53  
**HIDES.**  
Dry light to h'vy.....9 @ 9  
Salted.....5 @ 7  
**HOPS.**  
Oregon, 1890.....25 @ 35  
Cal 1890 Choice.....32 @ 35  
do Fair to G'd.....25 @ 30  
**NUTS—JOBBING.**  
Walnuts, Cal. lb.....8 @ 9

Choice selected, in good packages, fetch an advance on top quotations, while very poor grades sell less than the lower quotations.  
WEDNESDAY, March 11, 1891.  
**FRUITS AND VEGETABLES.**  
Bananas, bunch 1 50 @ 2 50  
Limes, Mex.....7 50 @ 8 50  
do California.....4 00 @ 4 00  
do do sm'l bxs.....90 @ 1 25  
Lemons, box.....2 00 @ 3 00  
do Riverside.....1 75 @ 2 25  
do Los Angeles.....1 25 @ 1 75  
Seedling Oranges.....1 75 @ 2 25  
Navel Oranges.....3 75 @ 4 25  
do Riverside.....3 75 @ 4 25  
do Los Angeles.....2 50 @ 3 00  
do do sealy.....1 50 @ 2 00  
do Duarte.....2 50 @ 3 25  
Pineapples, doz.....4 00 @ 5 00  
Apples, com box 1 00 @ 1 00  
do good.....1 50 @ 1 50  
do choice.....2 00 @ 2 00  
do Giltedged.....2 75 @ 2 75  
do Mountain, hbl.....6 00 @ 10 00  
Okra, dry, lb.....10 @ 17  
Choice selected, in good packages, fetch an advance on top quotations, while very poor grades sell less than the lower quotations.  
WEDNESDAY, March 11, 1891.  
**FRUITS AND VEGETABLES.**  
Parsnips, cts.....1 25 @ 1 25  
Peppers, dry, lb.....12 @ 20  
do green.....12 @ 20  
Turnips, cts.....75 @ 75  
Bests, sk.....1 @ 1 00  
Cabbage, 100 lbs.....50 @ 50  
Carrots, sk.....30 @ 30  
Marrowfat, ton.....20 @ 25 00  
Garlic, lb.....3 @ 5  
Asparagus, lb.....10 @ 15  
do Bouldin.....18 @ 20  
Mushrooms.....20 @ 25  
Common, lb.....20 @ 25  
Choice.....30 @ 40  
Celery, per doz.....50 @ 60  
Cauliflower, doz.....55 @ 65  
Summer Squash.....9 @ 10  
Tomatoes, box.....50 @ 1 50  
S'm'r Squash lb.....15 @ 20  
Cucumbers, doz 1 00 @ 1 50  
Rhubarb, lb.....6 @ 10  
Peas, gr'n com lb.....3 @ 5  
do do choice.....7 @ 9  
**VEGETABLES.**  
Okra, dry, lb.....10 @ 17  
\*In quoting oranges, regular sizes are given, viz., from 112 to 176 for Navel, and 126 to 226 for seedlings; odd sizes 50 cents to \$1 per box less.

PACIFIC COAST WEATHER FOR THE WEEK.											
(Furnished for publication in this paper by officer in charge of branch Signal office, Division of the Pacific.)											
DATE.	Olympia.	Portland.	Eureka.	Red Bluff.	Sacramento.	S. Francisco.	Fresno.	Keeler.	Los Angeles.	San Diego.	
March 1-10.	Rain.	Temp.	Wind.	Weather.	Rain.	Temp.	Wind.	Weather.	Rain.	Temp.	Wind.
W.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
T.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
F.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
S.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
S.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
M.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
T.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

EXPLANATION. Cl, for clear; Cy, cloudy; Fr, fair; Cm, calm; indicates too small to measure. Temperature wind and weather at 5 p. m. (Pacific Standard time) with amount of rainfall in the preceding 24 hours. T indicates trace of rainfall. P C, partly cloudy. Rn., rain.

**Engines & Boilers**  
—ESPECIALLY ADAPTED FOR—  
**DAIRY AND FARM USE**  
These trees are original importations from Italy, all thrifty, from five to eight feet in height.  
Single trees, Five Dollars each. Larger orders at reduced price. ALSO young trees (one and two years old) propagated from the above. ALSO a few trees of the Ruhra and Mission varieties. Address  
F. S. GOULD,  
Santa Barbara, California.

**Engines & Boilers**  
—ESPECIALLY ADAPTED FOR—  
**DAIRY AND FARM USE**  
PERFECT SAFETY ASSURED.  
Strong and Reliable Steam-Driving Power  
Furnished with the Most Economical Consumption of Fuel.  
Most Improved Patterns,  
\* Both Upright & Horizontal.  
Send for Illustrated Catalogue and Prices.  
**G. G. WICKSON & CO.,**  
Dairy and Farm Machinery,  
3 & 5 Front St., San Francisco, Cal.,  
846 N. Main St., Los Angeles,  
141 Front St., Portland, Oregon.

**Little's Chemical Fluid Non-Poisonous SHEEP DIP.**  
BEWARE OF CHEAP IMITATIONS.  
One gallon, mixed with 60 gallons of cold water, will dip thoroughly 180 sheep, at a cost of one cent each. Easily applied; a nourisher of wool; a certain cure for SCAB. Also  
**Little's Patent Powder Dip.**  
(POISONOUS.)  
Mixes instantly with water. Prevents the fly from striking. In a two-pound package there is sufficient to dip 20 sheep, and in a seven-pound package there is sufficient to dip 100 sheep.  
**CATTON, BELL & CO.,**  
(Successors to FALKNER, BELL & CO.),  
NO. 406 CALIFORNIA STREET, SAN FRANCISCO, CAL.

**San Francisco Tool Co.,**  
MANUFACTURERS OF  
**IRRIGATING PUMPS**  
—AND—  
**Machinery of all Kinds.**  
—PACIFIC COAST AGENTS—  
**BABCOOK & WILCOX**  
**Patent Water Tube Steam Boilers.**  
Estimates Furnished on Application.  
Send for Catalogues.  
**WORKS:**  
**FIRST and STEVENSON STS., S. F.**  
CENTRIFUGAL PUMP.

**Seeds, Plants, Etc.**  
**OLIVES!**  
ORDERS WILL BE RECEIVED FOR A VERY limited number of choice Italian Olive Trees. Varieties:  
FRANTOIO, CORREGGIOLO, } For Oil.  
MORINELLO, MORCHIAIO, }  
CUCCO, }  
PALAZZUOLO, } For Eating.  
These trees are original importations from Italy, all thrifty, from five to eight feet in height.  
Single trees, Five Dollars each. Larger orders at reduced price. ALSO young trees (one and two years old) propagated from the above. ALSO a few trees of the Ruhra and Mission varieties. Address  
F. S. GOULD,  
Santa Barbara, California.

**100,000 OLIVE TREES!**  
IF YOU WANT OLIVE TREES, YOU CANNOT DO better than engage them at once of the  
**MONTECITO NURSERY CO.**  
OF SANTA BARBARA,  
Who have an extensive stock of large and small-sized trees, very vigorous and healthy.  
L. A. MITCHELL, 422 Twelfth St., Oakland, or  
C. F. EATON, Santa Barbara, Box 474.  
**ORANGE CULTURE IN CALIFORNIA.**  
Now that the interest in the culture of the orange is extending so as to embrace nearly all parts of the State, a book giving the results of experience in parts of the State where the growth of the fruit has been longest pursued will be found of wide usefulness.  
"Orange Culture in California" was written by Thos. A. Garey of Los Angeles, after many years of practical experience and observation in the growth of the fruit. It is a well-printed hand-book of 227 pages, and treats of nursery practice, planting of orange orchards, cultivation and irrigation, pruning, estimates of cost of plantations, best varieties, etc.  
The book is sent post-paid at the reduced price of 75 cents per copy, in cloth binding. Address Dewey & Co., Publishers "Pacific Rural Press," 220 Market St., S. F.

**3,000 TAHITI SEEDLING ORANGES!**  
FROM 2 TO 4 FEET HIGH, AT LOWEST PRICE  
Apply to  
**G. TOSETTI, NURSERYMAN,**  
San Leandro, Alameda County, Cal.  
**TO PLANTERS FRENCH PRUNES.**  
I STILL HAVE IN STOCK A FEW THOUSAND OF French Prunes on Myroholan Seedling Roots, clean and healthy, that I am offering at a modest price. Also Pears, Apples, Cherries, Peaches and Apricots. All first class. Correspondence solicited. Address D. B. DERBY, Vacaville, Cal.  
**FRANK KUNZ,**  
Proprietor of the Union Nursery, 2129 Tenth Street, Sacramento,  
**HAS FOR SALE A FINE LOT OF OLIVES,**  
Grown in the open ground, namely: Manzanillo or Queen's Olive, Nevadillo Blanco, Picholine, and a fine lot of Chamrope Excelsior, which he offers at very low rates.

**GREEN MOUNTAIN GRAPE.**  
Six days earlier than any variety tested at the Agricultural Ex. Grounds at Geneva, N. Y. Color greenish-white; pulp tender, sweet and delicious. The only grape that ranks first both in earliness and quality. Each vine seeded with our registered trademark label. Send for circulars giving further information. Agents wanted Address STEPHEN HOYT'S SONS, New Canaan, Ct.  
**Thompson's SEEDLESS GRAPE ROOTS.**  
These Grapes make the finest seedless raisins known. For sale by J. P. ONSTOTT, Yuba City, Cal.

**THE JUDSON RABBIT-PROOF WIRE & PICKET FENCE.**  
fence colored RED by boiling in a chemical solution that preserves the wood. Address JUDSON MANUFACTURING COMPANY, 14 and 16 Fremont Street, San Francisco.  
CHEAPER and BETTER than Ever. Their 2-ft. high 3-cable fence has taken the trade. Farmers put barbed wire above it and have the CHEAPEST GOOD Fence that can be made in ANY WAY. Rabbits cannot get through. Hogs cannot break it and Horses or Cattle cannot get over it. All our



## Seeds, Plants, Etc.

**TREES! TREES! TREES!**  
**FRUIT, SHADE AND ORNAMENTAL,**AT THE  
**Riverside Nursery and Fruit Farm,**  
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## Mandarin Oranges.

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We offer 5000 Mandarin trees at \$20 per 100 in lots to suit.  
We have also a large variety of other fruit trees and  
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Apply at DOMOTO BROS. CO., Japanese Nursery, 663  
Third Street, Oakland.









Vol. XLI.—No. 12.

SAN FRANCISCO, SATURDAY, MARCH 21, 1891.

DEWEY & CO., Publishers,  
Office, 220 Market St.

### Dairy Progress.

Although our dairymen have accomplished very much in the line of progress during the last few years in the introduction of better machinery and processes and the construction of better buildings and other facilities, there is still much field for improvement. It is also true that there is much to be done in educating our dairy farmers to a proper appreciation of the benefit and profit in better work and better facilities. For this reason we welcome to our columns a stirring appeal which E. W. Steele of San Luis Obispo county makes to the dairymen of his county in the interest of progressive ideas and progressive work. Mr. Steele is one of our largest dairy owners and has been in the business in California ever since pioneer days. He is also quite abreast of the youngest and brightest of our newer generation of dairymen who have come into different parts of the State, introducing the latest Eastern ideas and methods. He knows from actual trial the advantages of having the best stock and having them intelligently fed and of having the latest improved devices for manufacturing their milk.

As Mr. Steele clearly shows, the dairy business at the East has been revolutionized almost during the last decade, and the only way we can compete with the Eastern product is to turn to account every feature of Eastern application of science and invention which is adapted to our conditions.

We have peculiar conditions to deal with, it is true, and many Eastern policies are not practicable here. That can easily be ascertained, and local skill in invention and adaptation will do the rest. But first of all, it is imperative that we should all be filled with the spirit of progress, and the methods and materials of progress will be almost immediately available. We hope all our dairy readers will weigh carefully Mr. Steele's propositions. If

he succeeds in arousing the interest in his county in a general dairy fair, and possibly a sort of dairy school during the fair, it will not be long before other counties and other districts, and finally the State at large, will enlist in such undertakings and we shall be as wide awake on these subjects as we are now on fruits and fruit products. Who will take hold and help onward this movement? We commend it to the attention of our contributors.



E. M. WARDALL. JAMES MORGAN. JOHN S. DORE. DAVID REID. JESSE POUNDSTONE.

MEMBERS EXECUTIVE COMMITTEE, CALIFORNIA FARMERS' ALLIANCE.—See page 265.

### The Wool Interest.

We are glad to see indications that the sheep interest is advancing in the direction of smaller flocks on a better system of management than formerly. We are told that the price of mutton has been influenced to some extent this winter by the demand for sheep among farmers, who propose to enter upon or extend their sheep-husbandry. This is quite different from the course of events during immediately previous years, when conditions were such that the course was out of the industry rather than into it. This is the result of the restored confidence inspired by the McKinley law, and we trust all anticipated benefits will be realized.

As the business is looking up, it is interesting to note that the Government has taken measures to note its progress on this coast systematically. Mr. John Minto of Salem, Oregon, whose stirring address to the members of the North Pacific Sheep Breeders and Wool Growers' Association was published in the *RURAL* for Nov. 29, 1890, has been appointed correspondent of the U. S. Bureau of Animal Industry in the special field of sheep and wool interests for the States of California, Oregon and Washington. In a recent letter Mr. Minto writes: "I hope and desire to avail myself of the aid of your columns, both to give and receive information as to the present status and means of future benefit to the sheep and wool interests of the field assigned me. It will be congenial work, in the discharge of

**THE ENGLISH SPARROW.**—At a recent meeting the Humboldt County Horticultural Society adopted a resolution directing the secretary to call the attention of the Board of Supervisors to the injurious work of the English sparrow, and request them to offer a bounty for its destruction, and also that each member of the Society should endeavor, so far as possible, to use all of the means in his power to exterminate it.

which, I recognize the influence of the *PRESS*." We shall be glad to assist Mr. Minto in every way in our power, and trust our readers will freely respond to such requests for information as he may make.

The publication will not only be of direct value to wool-growers in their work here, but will have a general effect in sustaining the industry in the protection from foreign competition which has recently been secured for it.



## THE DAIRY.

## A Stirring Address to California Dairymen.

The San Luis Obispo Tribune of last week has the following stirring address to the dairymen of that district by Mr. E. W. Steele, one of the best known and most progressive men in the California dairy interest. His points will be read by dairymen generally with marked attention, and we should like to have discussion upon the matters involved:

To the Dairymen of San Luis Obispo and Santa Barbara Counties: Every dairymen knows by his personal experience that for several years past dairying has not paid as well as it used to do, and in fact as well as it should, to make it a desirable and permanent business. Nor indeed, from a general view of the situation, is the prospect for future profits, under present methods, flattering. Competition from the cheap labor districts of the Eastern States—to be in the near future still further advanced by cheaper freights from the East, caused by the completion of other and competing overland routes to be built—and increasing business and volume of freight are, or surely will be, constant factors regulating and controlling the prices of dairy products in the future, and will surely make the competition closer.

What shall we do in the premises? Permit me to state a few facts and offer some suggestions that occur to me.

The facts already stated lead up to the pertinent question, how can the Eastern dairymen, with long and cold winters, requiring so much feed to keep up the animal heat in his cows, for such lengthy periods of feeding to contend with, on lands equally valuable and investments relatively as large, pay a heavy percentage on his produce as freight, and still make and sell his produce at a profit, and reduce our business almost, and in some years quite, to a losing one?

I have studied this question for years, and for a time was satisfied with the answer, "cheaper labor." But for some time I have known that this did not fully answer the question; did not account for very evident facts; was not, in fact, the principal advantage of our Eastern competitors.

What are their other advantages aside from the help of their families and cheap labor?

According to the light I have, I will answer. Better oows, careful care and shelter, and plenty of good food every day, of the kind best adapted to produce butter and cheese, in which the silo is an important factor in the non-producing season; improved methods for securing the full value of the milk for making butter and cheese; for making the best and longest and best-keeping produce; organizations of the dairymen for selling at home on stated market days for cash, at least cost to them, their produce; and last but not least, the careful saving of all the valuable manure and using the same on their land to keep up its productivity.

Now what are the advantages thus gained by the intelligent Eastern dairymen by these improved methods?

Let me answer this question with all sail set and headed for the breakers ahead (if there are any) in appreciable figures. Dairymen, refute these figures if you can. If you cannot, adopt improved methods or make up your minds to be content to work for a bare subsistence and "let the fittest survive."

I affirm that this advantage is 60 per cent over our average dairy methods, and this I believe to be a very conservative statement. This to many will seem to be a startling assertion.

Now I will try to sustain this assertion by theory and facts. The estimate of the most reliable Eastern authorities is that the unregenerated Eastern dairymen milk one-quarter of their cows at a positive loss, and one-third at no profit, thus leaving the other two-thirds of the dairy for profit. So much for poor cows.

These dairymen do not use a milk or cream tester, do not know the value of the milk of each cow for butter fat or cheese, and right here lose 33 1/3 per cent of their feed and labor. Some dairymen who have never thought of the subject or made tests, may say "this is hosh," or "we California dairymen can do better." I tell you you don't. For 33 years now in the State of California, there has not been one day that dairies in which I have been interested have not made butter or cheese. Our firm started with good American cows; we have been selecting and breeding for milk and the dairy with at least usual diligence and care for this country.

Many years since I awoke to the fact that I was losing much of the butter fat by the old method of setting milk in pans, but did not know how to overcome it save by the distant reports of deep setting, cooling creamers, etc. Directly I heard of the centrifugal creamer, when it first came into use in Europe. A friend saw one work and told me that it saved the butter fat to within one-half of one per cent, and as soon as I investigated a little more, and over three years since, I purchased a centrifugal creamer, and behold, presto! I at once discovered that a saving of butter fat equal to 20 per cent was made. I soon got another. Now, brother dairymen, are not most of you

losing this 20-per-cent profit on your whole investment in the dairy business? Our Eastern dairymen are not any more, and they will cinch the life out of us if we don't quit it, unless our beautiful and productive California saves us by its natural advantages. Again, I have got a milk tester; in a few months I can tell the percentage of butter in any cow's milk. The results are perfectly astonishing—great eye-openers. To illustrate, here is a cow that gives 40 lbs. of milk daily for a good long time. This is a large milker and you regard her as a No. 1 cow; here is another that gives only 25 lbs. of milk per day, and this is not more than or hardly an average. You test the milk of the two oows for butter fat. The 40 lb. cow tests 1 1/2 per cent, so makes .60 lbs. per day, while your little despised 25 lb. cow alongside tests 8 per cent butter fat, and so makes 2 lbs. of butter per day. Now these are not fancies; I find them to be facts in my dairy selected and bred for the dairy business for so many years.

The intelligent Eastern dairymen don't milk and keep his cows without testing them, and if we do, they will, as I said before, cinch the life out of us, and if they don't, my intelligent California dairymen, those that work up in these things will drive the silliness from the field.

The possibilities of the best bred and fed milk cows are being developed daily, and the best oows of ten years since are nowhere now. The Holstein oow Pauline Paul, of the Maplewood dairy farm, Pawling, N. Y., has the biggest known butter record of any cow in the world to-day, under test conditions. Being milked for a record in the advanced Holstein Registry, she made 1091 lbs. 15 ozs. of butter in 11 months, and at the end of the tenth month was still making 2 lbs. of butter per day. Up to that time the Jersey oow Euroclama had the biggest record, to wit: 945 lbs. and 9 ozs. in one year. Aggie the Second, another Holstein cow, has a record of 304 lbs. 5 1/2 ozs. in 90 days. Princess 23, a Jersey cow, in a seven days' test for butter, made 46 lbs. 12 1/2 ozs. of butter, being a pound of butter for every 6 4 lbs. of milk.

Mary Anne of St. Lambert, also a Jersey, in a seven days' test, made 36 lbs. 12 ozs. of butter, being a pound of butter for 6.66 lbs. of milk. Many of the best butter-bred Holsteins make a pound of butter for every 14 or 15 lbs. of milk, and give enormous quantities of milk, often milking nearly the year through. I have one Holstein cow that gave 51 9 10 lbs. of milk for 341 days on an average. All the milk in my dairy was weighed for three days, and made into butter, averaged 5 63 per cent or a pound of butter for 17.75 lbs. of milk. Different cows in my dairy gave, so far as I have tested, from 1 1/2 to 7 per cent milk. The average dairy ranges from 2 1/2 to 3 1/2 per cent milk; I am speaking now of butter fat. Of some oows' milk it takes 35 lbs. of milk for a pound of butter. In ordinary dairying it is rarely less than 25 lbs. of milk for one of butter, and often much more.

The Illinois Agricultural Experiment Station, in Bulletin No. 12 says: As much as one per cent of fat may often be found in skim milk, and the milk of many cows does not contain even 2 per cent of fat, and the average is from 2 1/2 to 3 1/2 per cent fat; often from 3 1/2 to 50 per cent of the fat goes off in the skim milk.

And now comes Mr. John Gould, a celebrated authority in all matters pertaining to the dairy, and says: One of the curious facts I am finding out is the loss of butter fat in churning, not more in the home-made butter than in the creamery butter. Two pounds of unchurned butter fat is often left in 100 lbs. of buttermilk; indeed it is not unusual. In a creamery that has 500 lbs. of buttermilk there would be a loss of 20 lbs. of butter. According to this, many of the dairies in our country are throwing away 20 lbs. of butter every day in the buttermilk. And now comes into view for favor and use the butter extractor, the newest important invention in dairy tools. It is a centrifugal creamer and churn combined. Put in the milk and it comes out butter in small grains about the size of turkey shot; the butter is run into brine or cold water, all the milky substance washed away and worked and salted at once. It is a new kind of butter (sweet cream butter) and the best makes in the East are selling for 40 cents per pound, or at least some of the fancy brands.

In late experiments with this new favorite it made a pound of butter from 5 1/2 lbs. less of milk than it took of the same milk with a Danish Weston centrifugal separator and the churn. An analysis of the buttermilk of the extractor in one case showed remaining in it still .17 of 1 per cent butter fat, in the other .32 of 1 per cent, both infinitesimal. How do the Eastern dairymen find out all of these things? By experiment at agricultural fairs, dairy schools and conventions, by experiments at the agricultural experimental stations, by the use of centrifugal creamers, milk testers and butter extractors. These institutions (dairy schools and conventions) receive appropriations from the States to aid and encourage them. They are alive, awake and organized; they have their cheese factories and creameries run by expert cheese and butter makers, and make the sales of their butter and cheese directly to the shippers and jobbers for cash, the price being made on market days at an agreed percentage less than the price obtained at the moment of sale by cable and telegram to the associated dairymen from the commercial marts of the world.

Should not the California dairymen awake

and organize for mutual protection and education?

According to scientific analysis, the manure of a dairy cow, fed a properly balanced feed, when all saved, is equal to more than \$18 invested in commercial fertilizers, and with our management of our manures, such as they are, we lose three-quarters of its value even if we do use it on our lands, which we often neglect to do, thus losing them entirely.

Why do we not here in California have these dairy schools, reports from agricultural experimental stations and dairy conventions aided by the State? Because we have no organizations to ask for and push such things. We have created no demand for such legislation and such valuable experiments in our behalf. In fact, we have been so primitive that we did not know that we wanted them. I speak from personal experience. This has happened because the business was profitable without them.

The practical man will ask, how are we to learn all of these things and know ourselves if they are true.

A proposition to the dairymen of San Luis Obispo, Santa Barbara and Monterey counties and a question:

## "Question."

Shall we, the dairymen of said counties (one or all of them), form an organization for mutual protection and education, and for securing the ear of our legislators in our behalf, with an eye also on the World's Fair Columbian Dairymen's Exposition, to be held in Chicago, to determine if we shall make ourselves heard there? I would like suggestions from any dairymen, and will help to get up such organization if it is deemed best.

## A Proposition.

At the coming fair of Agricultural District No. 16, to be held on the grounds of the Agricultural Park Association, in the city of San Luis Obispo, some time in September next (announcement of the time and society's premium list to be made in due time), I will have milk testers and dairy machinery for the purpose of testing the quality of milk and making the same into butter from each oow shown upon the grounds and entered for a premium, to determine the quality of butter each oow will make during the three or four available days of the fair, and I herewith personally offer the following

## Premiums:

To the oow that makes the most butter on the fair grounds in the three or four days, under test conditions (time to be hereafter determined) of well-worked, salted butter, salted one ounce to the pound, a thoroughbred Holstein bull, two years old or more.

Second best cow for butter, same conditions, a thoroughbred and registered Holstein bull six months old or over.

The society will probably offer a cash premium for the best butter herd of oows, conditions same, to be announced in due time.

I hereby agree not to compete for any of the above premiums or allow my oows to do the same.

E. W. STEELE

## THE DAIRY.

## The California Honey Product of 1890.

The following is the sixth annual market review of the honey and beeswax business of California for 1890, by Schacht, Lamoque & Steiner, San Francisco:

As we said in our last year's review, we thought that the crop of honey for 1890 would be a good one, and we are pleased to say that we were not wrong in our prediction. Last year's honey crop was larger than it has been for several years, and although the crop of 1884 has not been reached (and probably will never again be reached in California), we nevertheless have had a satisfactory yield, sufficiently large to supply the demand. We estimate the honey crop of 1890 at 4,500,000 lbs. of extracted honey, 500,000 lbs. of comb honey, or a total of 5,000,000 lbs., against 2,200,000 lbs. for 1889, 3,500,000 lbs. for 1888, 1,200,000 lbs. for 1887, 5,000,000 lbs. for 1886, 1,250,000 lbs. for 1885, 9,000,000 lbs. for 1884. Comparing last year's yield with previous crops, more honey than the average crop has been produced.

The quality has been very choice, and we think that no finer honey has ever been produced in California nor in any other country of the world. Prices, considering the large crop we have had, have been very good—thanks to the active demand we have had during the entire season, for shipment to Europe as well, as particularly for the different markets of the United States. Larger shipments than for many years have been made by rail overland, and a good proportion of this honey went from New York to Europe. According to statistics, 2,500,000 lbs. of extracted honey and 300,000 lbs. of comb honey have been shipped East during 1890, against: 1,000,000 lbs. in 1889, 1,000,000 lbs. in 1888, 950,000 lbs. in 1887, 2,000,000 lbs. in 1886, 1,270,000 lbs. in 1885.

All exports of honey by sail went to Europe and were made from San Francisco. They were, during 1890, by sail 4972 cases; 2708 cases to England, 2064 cases to Germany and 200 cases to France. One shipment, consisting of 775 cases, made to Hamburg by the Deanfield, has been lost, while all other shipments have arrived, with the exception of 1756 cases still on the way to England, which are on the following vessels: Desdemona, to Liverpool,

700 cases; Armida, to Liverpool, 631 cases; Cloucaird, to London, 125 cases; Shandon, to London, 300 cases. Shipments from here directly to Europe overland were 650 cases to France and 311 cases to Liverpool, which arrived in good condition. In Europe the supplies of California honey are only limited and particularly choice white honey is scarce, so that good prices are being paid in Liverpool and Hamburg. Comparing these shipments by sail to Europe with previous ones, we give the following list:

Year.	Cases.	Year.	Cases.
1889.....	1,500	1884.....	15,000
1888.....	5,000	1883.....	6,700
1887.....	2,000	1882.....	3,600
1886.....	7,500	1881.....	9,600
1885.....	3,800	1880.....	9,400

Or an average of 7000 cases per year. Since the 1st of January of this year, 584 cases were shipped by sail to Liverpool, 177 cases per the California and 407 cases per the Riverside; and overland for consumption in our country, 555 cases.

Arrivals in San Francisco during the past year have been 1,425,000 pounds of extracted honey and 100,000 pounds of comb honey, or a total of 1,525,000 pounds, against:

Year.	Pounds.	Year.	Pounds.
1889.....	1,300,000	1885.....	2,000,000
1888.....	1,500,000	1884.....	3,600,000
1887.....	1,300,000	1883.....	1,400,000
1886.....	2,500,000	1882.....	1,000,000

Since the first month of 1891, we have received 1153 cases extracted and 274 cases comb honey in San Francisco.

The stocks in San Francisco, in first hands, at the present time consist of 400 cases extracted honey and 100 cases comb honey, and the demand continues to be a good one, particularly for comb honey of choice white color, in one-pound frames. In the interior very little comb honey is left, while of extracted honey hardly 600 cases could be found in the southern part of California. This stock is only a small one, comparing with previous years at the corresponding time:

Year.	Cases.	Year.	Cases.
1889.....	1,500	1886.....	5,000
1888.....	1,200	1885.....	5,500
1887.....	1,600	1884.....	15,000

In the East the supplies of honey are also limited, and as we have several good consuming months still before us, we do not doubt that all the honey of last year's crop will have been consumed before we get any new honey. The prices for extracted honey have opened at 5@5 1/2, but soon they advanced to 6c, which price has been sustained, more or less, during the entire season. As a rule, the honey was of very choice quality, as we have said already, and besides it has been put up in better shape than in previous years; but some counties are still using old cans and cases, which is much to be regretted, and honey—particularly of choice quality fit for shipment to Europe—should be in new, strong cans and new cases, having partitions between the cans.

For comb honey we have had a much larger demand than could be supplied. A great many orders from the East remain unfilled, although good prices have been offered, and at the present time there is hardly any choice comb honey left in our market. The average price for comb honey has been 12c to 13c for one-pound frame, and 10c to 11c for two-pound frame. The demand for two-pound frame honey grows less from year to year, while the same increases for one-pound frame, so that it is strongly to be advised that apiarists should put up honey principally in one-pound frames.

## Beeswax.

Beeswax has been very scarce during the entire season, and the demand has been a very good one for Europe as well as for the Eastern markets. At the present time there are more orders in the market than can be filled at prices a good deal higher than for several years, which is rather strange, as the duty on beeswax has been abolished. The production of beeswax in California is not important, and we estimate the same at 40,000 pounds for 1890, against 30,000 pounds in 1889 and 40,000 pounds in 1888. Arrivals in San Francisco during the past year have been 33,000 pounds. Exports to Europe have been 9600 pounds and 17,000 pounds have been shipped by rail and steamer to New York and other markets, against 20,000 by sail to Europe and 5000 pounds to New York, for 1889. Stocks at the present time in San Francisco are 4000 pounds, but these have already been sold to England and will be shipped in a few days, so that we find only a few hundred pounds unsold in San Francisco. It is therefore likely that prices will remain very firm or will still further advance, as the demand continues to be a very active one. We now quote 23c to 25c, against 18c to 20c in the previous year.

The prospects for the coming honey crop have been poor till the middle of February, but lately we have had very welcome rains, and in consequence the outlook for this year's crop has improved a good deal.

## Queen Rearing.

EDITORS PRESS:—As the time will soon be at hand for bee-keepers to be weeding out all poor and inferior stocks of bees, or queens rather, a short article on that subject will not come amiss.

On the queen depends all the success in bee-culture. With good prolific queens we have hives overflowing with bees at the proper sea-



son, and colonies that mean business when the honey-flows come.

Bee-keepers of experience have noticed how certain colonies in their apiaries surpass all the others in honey-gathering, prolificness of queen, etc. They should breed queens from all such colonies and have the rest of the swarms in their apiaries as near like as possible. It is also a good idea to pick out a colony with choice drones, for usually the best queens for breeding queens from are not the best drone-producing queens.

After once understood, it is not such a great trick to raise queens; but to honey-producers generally it is necessarily expensive, as in good honey-yielding seasons they could buy their queens cheaper than they could afford to use part of their apary for queen-rearing. Quite a simple and practical method of queen-rearing is as follows: Take a frame of empty comb, and with a thin, sharp-pointed knife cut out a V-shaped line as follows: Commence at one end of the comb, about three inches from the bottom, and draw the knife in a circular line so that when it is in the middle of the comb the line will be 2½ inches from the bottom, and at the other end three inches from the bottom. The next thing on the program is to have a little melted wax and a cup of hot water; your work should be done in a room at a temperature of 100°.

Now go to the colony containing your best queen, and from one of the combs select a piece having larvae in the cells not over 24 to 36 hours old. After getting the larvae to the warm room to where you are going to work, shave off the cells on this little piece of comb down to within one-eighth of an inch of the base of the cells. Cut a sufficient amount of this larvae up into small strips of one row of cells and then cross these strips up into two cell pieces. Now invert your frame of empty comb and quickly dip each little piece of comb containing larvae in the melted wax, and fasten to the edge of the V-shaped line in the empty comb. Fasten these small strips of comb about 1½ inches apart and to project slightly outward. Another row of strips can be placed on the opposite side of the comb if needed. Now take your frame of cells and insert it in a queenless hive in the space you left for it. No doubt the bees are much bewildered at the loss of their queen; but as soon as this prepared frame of cells is lowered into the hive, they will immediately commence building queen cells. It is best to give this frame of prepared cells to a colony that has just been made queenless, because they will nearly every time give a good queen cell for every egg that was put in in good condition. Large colonies will sometimes build from 50 to 70 queen cells by the method I have given. I think old, tough comb is best to graft these small strips of larvae to, because it will hear to be handled considerably and no danger of breaking.

If you wish to raise another hatch of queens, in four days time remove this frame to the top story of some hive, that is fixed with a queen-excluding honey-board. You can immediately give your other swarm another batch of eggs, and in a few days you can remove the cells again, and repeat the operation until you have all the queen cells desired. When the cells are about ready to hatch in the top story of a hive, they should be given to a nuclei or otherwise cared for. If you give them to some nuclei, it is best to protect the cells with a queen-cell protector, so as to be on the safe side. If you intend to allow all the queens to hatch in the upper story of the hive, you must have each cell protected from each other by a wire-screen partition. When the cells are starting to hatch, you must be on the lookout all day long and remove each queen as soon as hatched and place where wanted.

By all means try and raise queens from the purest and best queens you have in the apiary, either Italian or Carniolan. I have found that Carniolan bees give greater returns than Italians.

Grizzly Flats Cal., Feb. 17th.

### Honey Notes and Honey Packages.

EDITORS PRESS:—Acting upon the supposition that subjects presented in your journal are open for discussion, I wish to comment upon several recent communications.

A correspondent from Murphys appears to think that Uncle Amos is in the dark. In my opinion this is not so, for the aforesaid uncle knows full well that Nevada is not situated in California, and he also is aware of the fact that our State is far ahead of anything East for honey production, as he has visited the Southern counties and repeatedly passed judgment upon our honey as being of the best. We should in charity remember that the editor of whom the writer speaks is a very busy man, and, like the balance of mankind, is but human (to err is human); and yet it must be admitted that it was a most grievous mistake to advise a man to emigrate from the Golden State. While we remember that Uncle Amos is the proprietor of the best all-purpose bee journal now before the public, and that he is thereby doing good for himself and others, let us in charity forgive this error, but admonish him to be very careful in the future.

It is considered poor policy to paint a town red; it is also, in the opinion of progressive apiarists, not good to paint hives red or any other dark color. Light colors are said to radiate heat, dark to absorb. We also note that advanced thought recommends placing hives nearly on a level with the ground on account of ease in manipulation and accommodation of

heavy-laden bees. Who has not seen many a poor, heavily laden worker come in nearly exhausted from long and weary flight? The less elevation she has to maintain, so much the easier to alight. Does our correspondent advance the idea of permitting bees to build combs outside of the hive as in keeping with progressive bee-culture? Honey stored as above is nearly worthless for sale. In one-pound sections the price is from 12 to 15 cents per pound. The reader can easily discern the value of progressive ideas.

War is declared against second-hand cans and cases. A can once filled with coal oil is easily cleansed with a solution of concentrated lye, one pound dissolved in ten gallons of water; rinse twice with this solution and twice with water; expose the cans in the sun for two or three days and they are as good as new. Use nothing but coal-oil, gasoline or alcohol cans. It's the slovenly method of cleansing that plays the mischief.

The cost of new cans and cases to us in the interior places their use almost in the list of impossibilities. Oost per case in San Francisco, 95c, freight and drayage not less than 40c, making the cost of package \$1.35, or more than one cent per pound; yet the trade will allow no advance in the price of honey packed in them. It is a well-known fact that extracted honey does not retain the delicacy of flavor under any circumstances, also that the output is largely concerned in the various lines of manufactured food products. Hence the best we can expect to do is to put the product upon the market as cheaply as possible and still be in keeping with cleanliness and purity, which I claim can be done in the second-hand package. I will recapitulate: Let none but bright, new cans thoroughly cleansed be used. The case should be renailed and bonded with a twisted wire at each end and the marks of the oil brand removed with a plane. One often sees in the commission-house, cases broken, cans leaking, comb honey in all manner of conditions. Is it to be wondered at that the long-suffering commission-man's heart becomes hardened, and he charges shortage, breakage, (damages and various ages to shippers' account? Let all who put honey upon the market in California remember that it must be so packed as to be received in good merchantable order in New York, Liverpool, Berlin or Sydney, as the case may be. Too much care cannot be exercised in this respect. There are a thousand and one people growing at their commission-house, while the cases in a majority of cases lie with themselves. The fixing up of things just to get them off your hands will never do; be assured your sins will find you out.

Furthermore, we learn that the use of second-hand packages will knock the bottom still further out from under the price of California honey. If this be true, why doesn't the use of brand-new and tidy cases enhance the salable value? Please arise and explain, gentlemen. Remember, I do not recommend the use of filthy receptacles. Let each shipper put nothing out but first-class honey of the different grades. Let all be just what it purports to be—nothing else. Place the name of the producer upon each package as a guarantee of value.

Again, let us compare the price of California extracted with Eastern. A circular of one of the leading apiarists of the States quotes prices in a jobbing way at 8 cents New York, and other points quote California at 7½ cents in car lots. Commission-houses of Cincinnati with whom I have corresponded make no distinction between Eastern and California honey. Some time since, the writer shipped a consignment of five tons to the largest dealers in the city of San Francisco. It was immediately sold to the export trade, and an order given for a carload. So much for tidy second-hand packages.

Lastly, as the parson says in closing his discourse, nearly all of the "war to the knife" cry on packages proceeds from supply dealers or commission-men who wish to eke out their scanty incomes by 33 per cent commission on new packages. We propose to put our product out in the cheapest possible package, guaranteeing its quality and trusting to the merit of the goods and not the shimmer of a package for its sale.

Bakersfield March 1891.

## THE IRRIGATOR.

### Irrigation in Arizona.

The following is the introductory portion of a census bulletin by F. H. Newell, for which we are indebted to C. C. Babb:

The total area in Arizona on which crops were raised by irrigation in the census year ending June 30, 1890, was 65,821 acres, or 102.8 square miles, less than one-tenth of one per cent of the entire area of the Territory. The aggregate number of farms was 1448, and of these 1075, or 74 per cent, depended upon irrigation, the remaining 26 per cent being stock ranches, or farms situated high in the mountains, where crops can be raised by what is known as "dry farming." The average size of irrigated farms, or rather of the irrigated portions of farms on which irrigation was practiced, was 61 acres. In this connection the term "irrigated farm" is used to include only the area on which crops were raised by irrigation, the uncultivated portions of such farms not being taken into account. With this under-

standing the irrigated farms or areas cultivated by each person have been classified as follows: Seven irrigated farms of 640 acres or upward, 15 of from 320 to 640 acres, and 57 of from 160 to 320 acres. These 79 farms contain an average of 287 acres each, and have a total area of 22,656 acres, or 34 per cent of the entire amount watered in the Territory. The remaining 996 farms, under 160 acres in size, comprise only 66 per cent of the total irrigated area, and average 43 acres each. In other words, seven per cent of the farmers of the Territory owned over one-third of the productive land, and the remaining 93 per cent of irrigators owned an average of 43 acres each.

Counties.	Number of irrigators.	Total irrigated area in crop acres.	Average size of irrigated farms in acres.	Average value of products per acre.
Apache.....	182	5,545	30	\$13.36
Cochise.....	32	2,372	46	26.93
Gila.....	18	815	45	23.85
Graham.....	199	7,558	38	16.06
Maricopa.....	327	35,212	108	9.26
Pima.....	85	3,053	36	30.36
Pinal.....	115	6,919	60	11.25
Yavapai.....	91	3,762	41	31.00
Yuma.....	6	555	93	10.50
Total.....	1,075	65,821	61	\$13.92

Taking all the counties in the Territory, with their varying conditions, the average cost of water right was \$7.07 per acre. This includes all cases, from the one extreme, in which the farmer dug his own ditches from the river—the cost of water right in that case being the amount which the ditch cost him in labor and material—to the other extreme, in which he purchased his water right from some company, paying a certain sum per acre for the privilege of renting or buying water each year. The selling value placed upon this by the farmer, whenever his right was transferable, was \$12.58. The average annual cost for water was \$1.55 per acre, this expenditure being either in labor in keeping the main ditches and dams in repair or paid as a cash assessment or rental to an association or corporation.

Besides the first cost of the water and the annual assessment for its use, an estimate has been made of the first cost of bringing the land from a wild state under cultivation by irrigation beyond the expense for the water right. This estimate, which is \$8.60 per acre, includes the cost of plowing, grubbing sagebrush, cutting mesquite, fencing and leveling, or otherwise preparing the ground for irrigation.

Assuming, then, that the original purchase price of the land was \$1.25 per acre, the cost of preparing for cultivation by irrigation \$8.60 per acre, and the first cost of water right \$7.07 per acre, the land cost the original owners a total of \$16.92 per acre. It is ascertained, for comparison with this, that the average valuation, including buildings, fences and other improvements of the land on which irrigation is practiced, is placed by the owners at \$48.68 per acre, showing an apparent profit, less cost of buildings, of \$31.76 per acre.

In comparison with the annual outlay for water, it is found that the average annual value of farm products is \$13.92 per acre, leaving the farmer \$12.37 per acre per annum as a return for his labor and as interest on his investment.

On examination of the figures for the different counties, it will be noticed that in general the value of products per acre increases as the average size of the farm diminishes. For example, in Maricopa county the average size, 108 acres, is the greatest in the Territory, while the average value of product, \$9.26 per acre, is the least. Next comes Yuma county, with an average of 93 acres per farm and products averaging \$10.50 per acre; then Pinal, with an average of 60 acres per farm and products of \$11.25 per acre. In other words, the larger irrigated farms were not so closely tilled as were the smaller, and a lower-priced crop was the result.

Deducting the 79 large farms, on which the average value of product was \$9.05 per acre, there remain 996 farms, with an average extent of 43 acres each, on which the value of product was placed at \$16.75 per acre; that is to say, the farmers, in the main, if their statements are correct, must have supported themselves and made their profits out of gross earnings averaging \$720 per annum each.

These results have been computed from data acquired both by field work and correspondence. The enumerators in the several districts obtained the acreage and likewise the value of land and products of each farm. On the completion of this field work, a blank schedule was mailed to each farmer, requesting a more detailed statement as to the location of his land, the source of his water supply, the cost of irrigation, and also as to local customs. The replies were compared with the statements of the enumerators, and in every case of apparent misunderstanding or serious discrepancy a second letter was sent. The information thus obtained was then carefully examined in the light of personal knowledge of the climate and products of the Territory. Besides the blank schedule sent to farmers, correspondence was entered into with the owners or officers of canals, with a view of obtaining statistics as to cost of construction, etc. The result of this correspondence will be given at a later date.

The agricultural and irrigable land of Arizona is situated in the southwestern half of the Territory. If a line be drawn from the northwestern to the southeastern corner diagonally across the Territory, this line will lie for a greater portion of the distance along the face of the great escarpment which divides the high plateaus from the plains of the Gila basin.

Against the face of this escarpment the larger portion of the available moisture is precipitated, rolling back to feed the tributaries of the Gila, thus rendering possible a certain amount of irrigation in the narrow valleys, especially on the Gila and Salt river plains near the point where their waters leave the canyons. High up on the edge of the plateau country and among the mountains, at elevations of from 5000 to 7000 feet, a little agriculture is successfully carried on without irrigation, usually in connection with stock-raising or in the immediate vicinity of mining towns. The crops raised, however, are comparatively insignificant.

The acreage at present under irrigation may be regarded as approaching the maximum possible with the present supply of water and methods of using it. In other words, all the easily available water has been utilized, and expansion can come only by a greater economy in the use of the existing supply or by the adoption of systems of storage for the conservation of the flood-water now annually running to waste. The irrigators look forward to the latter alternative as the most effectual means of obtaining relief from present troubles and uncertainties. Progress in this direction will, however, be slow, from the necessity of a large outlay of capital before any return can be realized, and from the fact that the controllers of capital, whether governmental or private, have had comparatively few facts on which to base reliable estimates. The amount of water that can be reserved by storage is known from common observation to be very large, but it is usually greatly overestimated, from the fact that even a small volume of water, coming all at once and with great velocity, is often extremely destructive and creates a vivid impression, while the same amount, if distributed through as many days or weeks as it is hours, would not excite comment. Measurements have been made in a few instances by engineers and by the United States Geological Survey, but the operations of the latter were discontinued before a range of much over a year had been obtained. For example, taking what is probably the best storage site in Arizona, that on the Gila at the Buttes above Florence, the mean discharge at this place, as shown in the eleventh annual report of the Director of the United States Geological Survey, from September 1, 1889, to August 31, 1890, when operations were suspended, was 503 second-feet, averaging 1000 acre-feet per day, or 365,000 acre-feet for the whole year. Assuming a water duty of 100 acres to the second foot, this, if all the water could be stored, would irrigate 50,000 acres, instead of the 7000 acres or less now irrigated in the vicinity of Florence. A large reduction from this theoretical amount must, however, be made for losses by evaporation and seepage. Without going into a discussion of the measured water supply, this will suffice to show that it is possible to determine the volume and intensity of floods, and that when this has been done the water-storage problem will be in a fair way to solution, since only then will it be possible to prepare reliable estimates of costs and profits.

Shortage of water, and consequent loss of crops on irrigated land, are reported by the majority of farmers whose rights to water are secondary to those of the first comers. The latter, however, report that there is ample water for all their own needs, except in general from the middle or latter part of June, through July, August, and into September. Before this time, however, the cereals, with the exception of corn, should be matured and probably two or more cuttings of alfalfa made.

For the greater part of the Territory it may be said that irrigation is practiced or is necessary to successful farming throughout the entire year. In the lower plains the temperature is such that crops will grow and mature at any season of the year, provided there is a sufficient supply of moisture. Crop follows crop in constant succession, if only there is an abundance of water in the ditch or of summer rains. During the winter, and also in the early spring and late fall, water is used on the alfalfa and hay crops, from three to six cuttings of alfalfa being made annually, the average of the entire Territory being five. Usually, two waterings are given for each cutting, the total amount of water used being thus largely in excess of that required by any other crop. Later in the spring, when the rivers begin to decline, the alfalfa is neglected, all the water being needed for the cereals and vegetables, and still later, before the summer floods set in, in many places the entire flow has to be taken to save the trees and vines.

The water is, in most cases, applied by flooding, as, for instance, on alfalfa and grain, or through furrows laid off at regular intervals, no especial care being taken in the preparation of the fields. The Mexicans still practice the old method of flooding in small "pools" or rectangular areas, separated by ridges of earth. The farmers, almost without exception, look forward to better methods of distributing and applying water. Since the soil and local conditions vary so widely, there can be no absolute rule as to the number of waterings or the time required for the different products. There is a growing impression that in many cases too much water is used, and that better crops could be matured by using the water more sparingly, which would also have the effect of increasing the cultivable acreage.

The bulletin continues at considerable length with a description of the counties mentioned in the table.



## PATRONS OF HUSBANDRY.

In our Rural Press Official Grange Edition, issued every week, will be found additional matter from this and other jurisdictions, of interest and importance to Patrons. Any subscriber who wishes can change free to that edition.

## The Master's Desk.

R. W. DAVIS, W.M. S. G. OF CALIFORNIA.

In the death of Bro. Calvin J. Cressey, the Worthy Treasurer of the State Grange, the writer lost one of his truest, sincerest and most faithful friends. Though his death was not entirely unexpected, yet the announcement was all too much for physical and mental strength, and nothing but the balm which Time brings will restore to mental equilibrium. To attempt to express the real emotion and the innermost sensibilities of love and esteem for the deceased is to attempt the impossible. The farewell of sight we have said, but the farewell of memory, of love, of admiration, of devotion, of fraternity, will linger while life is spared.

Farmers should have sentiments and speak them.

The nation listens when power speaks. Tillers of the soil, you are a power in this nation. Be sure to be right, then speak, though the (political) heavens tremble.

Gardening, dairying, poultry-raising, flower-culture and housework are a few of the many employments our sisters of the farm find at this season of the year. It will soon be picnics, preserving, harvesting, and so forth. And thus one's life runs away.

If there be members in your subordinate Grange who are inclined to rule or ruin (we hope there are none so minded), ask them to commit to memory the obligation of the first degree, and to repeat the same on the way to and from each Grange meeting. Perhaps such a remedy may cure the evil, and surely 'twill not hurt any one.

How about an Arbor Day in your Grange? Why not plant a tree, rosebush, flowering shrub?

Your Grange will be a most unqualified success if each and every member will take an active, earnest, honest interest in all that tends to elevate humanity and to make the farming class the equals, and so far as possible the superiors, of all with whom they come in contact.

The members of the Grange cherish in their hearts every kind feeling toward all other Orders as associations which seek to promote human welfare, and it will work hand in hand with all who are laboring for the good of humanity.

American River Grange, Sacramento county, is having a boom. They have a class of 20 persons on the way to the Master's office. It is reported that this class will arrive at the Master's office about the last Saturday in March, but before reaching their destination, it is expected to kill the fatted pullet, pick the glorious gobbler, and steam the coffee-pot, for the Good of the Order.

What are you doing to make the next session of the State Grange a rousing success? Don't forget, there is something for willing hands to do, and active minds are just as much in demand.

Isn't it better to bear a great wrong than to commit a small wrong? But remember, two wrongs do not make one right.

A very great effort is being made, in many places, by diverse persons and on a multitude of pretext, to get the Grange into partisan politics. We both hope and believe all such efforts will be failures. The Grange has done more than well enough. Its success has been (as some think too) slow, but its results are permanent, because founded on RIGHT. No one who knows what the Grange has done need be ashamed of belonging to the Order. Stand by the Grange and it will stand by the farmers.

Does your Grange want to assist in holding a Farmers' Institute in your neighborhood? If so, communicate with E. J. Wickson (care of University) Berkeley, Cal.

This is the time of year to "plant right" in the public schools. It is more important to have a crop of good young men and young women than to have a large yield of wheat. Look well to the public school.

Do your boys know as much about their arithmetic and geography lessons as they know about baseball and the percentages of the ball-tossers?

How very few of our schools turn out good readers. Why is this? There is nothing more important than to be able to read with the spirit and the understanding.

Get an idea in your head before you try to let it out of your mouth!

A premeditated lie will travel a long distance, but the maker always has to pay the



THE LATE C. J. CRESSEY AND BABY GRANGER ROACHE.

freight. No transportation company will accept it C. O. D. Charges must be paid in advance, and no risk is assumed on the part of the transmitter.

An appeal comes from the drought-stricken portion of Nebraska for aid. The farmers in many places are without seed or feed and without money. Send money if you can spare it. But if you can't send money and have seeds (garden or field), send them to J. R. Cantlin, Sec'y State Grange, Webster, Neb. Let the sisters take this matter in hand, and then there will be something done.

## Executive Committee Meeting.

A special meeting of the Executive Committee of the State Grange was held, with all members present, on the evening of March 14th, at which Past Master I. C. Steele was elected Treasurer of the State Grange, in place of Bro. Cressey, deceased. It was also voted that E. W. Davis, Worthy Master, write resolutions of regret on the death of Bro. Cressey for publication.

The following tribute of respect was adopted by the Executive Committee:

WHEREAS, Death has invaded, unbidden, our circle, and has taken one of the strongest links in our fraternal chain; and

Whereas, The Executive Committee of the State Grange of California feels most deeply the loss of an esteemed friend, a noble Patron and a conscientious brother; therefore

Resolved, That in the death of C. J. Cressey the Order of Patrons of Husbandry has lost an able advocate, a trustworthy brother, a faithful, honest officer, a persevering citizen, a grand man among men. His labors, for the Order he loved so well, have endeared him to members of the fraternity from the Pacific to the Atlantic and from the Lakes to the Gulf. But words fail to give our grief; therefore it is

Resolved, That a copy of these resolutions be spread on the pages of our proceedings and a copy duly attested be sent to the family of our deceased brother, for whom our prayers and our tears are most freely given.

E. W. DAVIS,  
For Ex. Com. State Grange of Cal.

AT GALT AND WOODLAND.—Organizing Deputy F. B. Logan has been at Bro. McConnell's, Elk Grove, this week and will soon visit Galt, Woodland and other places in the interest of the Grange and its official organ, the RURAL PRESS. He is a good correspondent and worthy worker in the interest of the Grange and farm. We bespeak favorable consideration for him in his arduous labors.

ANNUAL PROCEEDINGS.—We acknowledge the receipt of the Proceedings of the 19th Annual Session of the Wisconsin State Grange from the Worthy Secretary, Bro. H. E. Husley; also the Proceedings of the 21st Annual Session of the Iowa State Grange from its Secretary, Bro. J. W. Murphy.

A decent man who picks up a paper to find what is being done at Sacramento and sees nothing but sack, sack, gets disgusted.—*Tulare Register.*

## The Grange and the World's Fair.

The Chief of the Department of Agriculture of the World's Fair invites the co-operation of the Granges in carrying forward his important work. We commend the subject to discussion at meetings of subordinate Granges from time to time, and such discussion, coupled with the fresh information which is promised, will, no doubt, show ways in which the agricultural features of the great occasion can be made truly representative, and reflect both credit and benefit upon the greatest industry of our great country. The following letter explains itself:

OFFICE OF THE DIRECTOR GENERAL,  
WORLD'S COLUMBIAN EXPOSITION,  
CHICAGO, ILL., March 13, 1891.

Mr. A. T. Dewey, Sec'y State Grange of California, San Francisco, Cal.—DEAR SIR:—I am greatly obliged to you for your kind inclosure of the 9th inst. containing a list of your Grange Secretaries. Information will be sent them from time to time that will, I know, be of interest to them.

In your official position you can do much for the Exposition and for the agricultural industry by impressing farmers with the benefits that can be derived by their localities and States from their becoming individual exhibitors. By sending to the Exposition, small, carefully selected specimens of the very best products of their neighborhood, the State becomes a gainer, and a larger interest is awakened through the country in this feature of the Exposition. Yours very truly,

W. I. BUCHANAN,  
Chief Department of Agriculture.

## "A Good Word," Etc.

"Give everybody their due" is a good motto. The Australian Ballot law passed by the present session of the Legislature is an Act to make every honest citizen happy over and proud of. The Governor and some of his leading friends turned in and helped secure it. We would like to see meetings of rejoicing held as soon as the Governor signs the bill. Its passage is real encouragement. It took hard work to squeeze it through the present Legislature, but the members have passed it. This one Act, we personally believe, will be of greater benefit to the State of California than the whole legislation enacted at any one session of the past five years.

All honor to Bro. J. D. Huffman, ex-Congressman Berry, the Legislative Committee of the State Grange and Federated Trades, and ALL who have worked for the passage of this all-important bill. Let their work be well remembered. Now let us prepare for more good accomplishments in legislative reform.

WATERTOWN GRANGE, Jefferson county, N. Y., is the banner Grange of the United States as far as heard from. It now reports 583 members and 40 applications.

PAST MASTER J. V. WEBSTER says some very plain things about Government ownership of railroads which should be read by all and candidly considered.

## Funeral of C. J. Cressey.

The funeral of Bro. C. J. Cressey at Oakland Saturday, March 14, was largely attended by Patrons and friends from different parts of the State. The address by E. W. Davis, Master of the State Grange, was an able and touching tribute to the memory of one of the best and most remarkable Patrons and farmers ever known on the coast.

The view of the several stalwart Past Masters of the State Grange as pallbearers, and other veteran Patrons assisting in calmly and tenderly laying away the body of their deeply loved companion, was a scene of lifelong impression upon the hearts of all present.

A godly band of true Patrons accompanied the remains of the deceased and family from San Jose.

The floral decorations contributed were tasteful, rare and abundant.

Seldom has any large or small memorial gathering ever evinced so universal a love and respect for a deceased friend.

Verily, his cheerful countenance, encouraging words and good deeds will ever dwell with us and their good influence bless our successors like unto a continued good life on earth.

On this page we add to the illustration and sketch of his life given last week, a later photo-facsimile view, (taken in October last by request of his friends) including the portrait of "the baby of the Grange"—"Granger Roache"—son of A. P. Roache (Overseer of the State Grange), and Sister E. Z. Roache (then Master of Watsonville Grange).

In compliment to the unusually successful efforts of Sister and Brother Roache in making Watsonville the Banner Grange of the State, and the most generous entertainment of the State Grange tendered by Watsonville, a purse of \$105 was contributed by Patrons, and presented in eloquent words by Bro. Cressey, to the parents, for the future benefit of "Baby Granger Roache."

The beautiful harp of flowers, shown at the left of the ploture, was gracefully tendered Bro. Cressey (after making his presentation), by young ladies of Watsonville.

A further description of the funeral, etc., will be found in the supplemented pages of our Grange edition this week.

## Letters of Regret, Etc.

Letters of sympathy and regrets for inability to be present were received from I. C. Steele, P. M., A. P. Roache, W. O., Sister E. Z. Roache, A. T. Perkins, W. M. of Temescal Grange, Geo. Steele, W. L., and others.

From Past Master I. C. Steele:

"Dear friends from Boston are visiting us for a day or two, and have to start on their return trip on Monday. I have not seen them before for 14 years, and this is perhaps the only opportunity I shall ever have of seeing them in this world. Brother Cressey, with all his strength of body and will, has been called to the higher life, while I, with all my weakness and accumulated years, remain in this. We shall miss his manly form and words of wisdom in our councils, and with deep regret continue to work for the right as we understand it."

By request we met Past Master Overhiser at the Kness House, Friday evening. He, with Bro. J. D. Huffman, had engaged to meet the Board of Directors of the State Prison at San Quentin, and confer with them in regard to furnishing grain sacks to farmers during the coming year. It was a trial for them to give up attending the funeral, as they finally did, believing it a matter of much importance that they attend the meeting, for the benefit of Patrons and farmers at large.

## A Noble Tribute From Pomona.

WHEATLAND, CAL., March 15, 1891.

DEAR BRO. DEWEY:—It was with feelings of deepest sorrow and regret I read your notice of Bro. Cressey's death.

We have lost one of the strongest pillars of our Order; for his life has been so interwoven with it as to become a part of its history. In enterprise, sagacity, unlimited energy in qualities of head and heart which mark a man from his fellows, Bro. C. J. Cressey has been one of the foremost whose efforts have established the Grange upon the sound foundation which it now stands.

Surely, Pomona's choicest treasure has been plucked from her orchard; not, however, in bud or blossom, but in the fully matured fruit—the fruit that has passed through storm and sunshine, darkness and light, yet ever found with its rosy tints unveiled.

Hard indeed will be the task for us to meet at Haywards without that well-known figure, whose cheery voice is forever silenced. With sorrowing hearts we shall drape his vacant chair in mourning, not only in the outer habiliments of somber hues, but with the tender thoughts of his past life among us. Truly and fraternally yours,

ROSE OSTROM,  
Pomona Cal. State Grange.

SANTA ROSA GRANGE conferred the third and fourth degrees on a class of five in a very creditable manner March 14th. Had six applications for proper credentials for the fifth degree, which is to be conferred in full at the next meeting of Pomona Grange. Had a good attendance of visiting brothers and sisters from each Grange in the county. One topic agitated was the "children's picnic" (another the "Trade-Card system").

[Such correct correspondents should give their signatures.—EDS.]



## FARMERS' ALLIANCE.

SUBSCRIBERS wishing fuller information of the Alliance can have their names changed to the Grange Edition of the RURAL PRESS free, much to their advantage, this department being continued in the same.

## The Alliance Business Arm.

Knowing that members everywhere wish to know as much as possible of the men to whom the business interests of their Order have been intrusted, we present an opportunity for all to look upon some of their faces through an accurately produced photo-facsimile engraving, which appears upon the first page of this issue. The accompanying brief life-sketches will also give further insight to the fair character of our chosen business council.

While we thus vary the official order of rank in presenting the Executive Committee at this time in our gallery of Alliance portraits, we would not by any means hold any other officers in light esteem for ability, fidelity and importance, and shall soon publish sketches of several whose engravings are already wholly or partly prepared. This feature of our issues will also be of much interest to general readers.

JOHN S. DORE.

CHAIRMAN EX. COM., CAL. S. F. A. &amp; I. U.

Bro. Dore was born at Harmony, Maine, Dec. 26, 1838. When six years of age his mother died. Then for two years he lived with his grandfather Stafford at Hartland, Maine. His earliest recollection of farm work (still clear and pointed) viz.: picking Canada thistles out of wheat cut with a hand-sickle, and barefooted. Among the delights of his two years life (in the circle of nearly a dozen big uncles) were the sugar-camp, burning coal pits, bee tree cutting, rides to school on high loads of tanbark, fishing, skating, etc. Thus surrounded by a large family of the early New England type, the foundation of a strong, self-reliant manhood was based.

His father again marrying, he returned and remained at home, and in 1850, with his parents, removed to Princeton, Marquette (now Green Lake) county, Wisconsin. His father's poor health, with a large family, and lack of school facilities in a new country, prevented the son from attending school for two years. From that on for several years, attendance during the winter terms was all the schooling secured. At 18 he began teaching, with success, near Montello, Wisconsin. From that on he worked summers and taught winters. In '59, '60 and '61, he kept the village school of Neillsville, county seat of Clark county, afterward entering the University at Galesville, Wis., intending to work his way through a thorough classical course. Although making rapid advancement and receiving the highest of testimonials from the faculty, in less than a year, he began to be restless and returned to industrial employment in Clark county, and there he resided continuously till 1883, when he came to California. He was married to Miss L. Jennie Angell in La Crosse Co., Wisconsin, Jan. 1, 1863.

During some 20 years residence in Clark county, he was for a time engaged in publishing a newspaper; superintendent of schools for five terms—ten years (there being nearly 100 teachers employed the last term); Chairman of Co. Board of Supervisors, six years; Pres. of Co. Agricultural Society, several years; member of State Board of Agriculture, four years; by State appointment, visitor to the State Normal schools for one year. The last five years in Wisconsin were spent on a farm of 320 acres, all originally heavily timbered. One hundred acres were cleared by Mr. Dore, who for two years made dairying the leading feature of the farm. He also engaged in lumbering, but unsuccessfully.

During his active life in Wisconsin, public affairs claimed his earnest attention, as attested by his aid in the construction of county and school buildings and the successful exposure of official thievery which secured over \$60,000 in judgments in favor of the county against defaulting officials and their bondsmen.

In the fall of 1883, after looking over the State several months, he decided to locate near Fresno, buying land wholly on time—he having barely money enough to transport his family and build a comfortable house—which is still his home. From 1880 Mr. Dore suffered poor health until greatly benefited by the change to Fresno climate. Nothing could induce him to try again to live in a cold or damp climate. He has accomplished good results in vineyard work, last season producing 50 tons of raisins on his own vineyard and as many more from other vines in his care.

Politically a Republican till the close of the war, he later worked vigorously with the Greenback party, and lately has been an independent voter. Having formerly belonged to the Grange, when the Alliance was organized near his home last summer he joined and was delegate to the first State meeting at San Jose. Although unknown to but few present, without evident desire for promotion, his superior and desirable qualities as a worker in the cause, like those of President Cannon, became clearly apparent, and stamped him as a most able and suitable Chairman of the Executive Committee—the business arm of the Order. Popularly elected to that important position, he has unquestionably highly honored the position.

As a presiding officer, he proves most efficient in expediting the work in a satisfactory and business-like way.

Bro. Dore is of medium size and height; has an affable, yet in a measure reserved and dignified manner in public. He is capable of leading in whatever business or social calling he may be engaged, and seems thoroughly in earnest in the cause, and for the highest interests of the Farmers' Alliance.

EDWIN MELTON WARDALL.

VICE-PRES. EX. COMMITTEE.

Bro. Edwin Melton Wardall was born in Indiana, Nov. 29, 1841. His earliest recollections of home are of a log house in the woods of Southern Wisconsin, to which Territory his parents moved when he was about a year old. Here he attended district school sixteen weeks during the winter, assisting his father on the farm the balance of the year.

In the spring of 1850 we find him mourning a boy's best friend and counselor, his mother, who died, leaving a family of small children, he being the eldest.

When 13 years of age, the family moved to Springfield, Ill. Here the children enjoyed excellent school advantages. The family subsequently settled in Iowa, the land of log schoolhouses and short terms of school.

In 1861 we find him enrolled as a private soldier in the Third Iowa Infantry. He was honorably discharged at Savannah, after the famous march to the sea. From the war he, with his brother Alonzo Wardall (now residing in South Dakota and a very efficient worker in both State and National Alliance), returned to Iowa and resumed his labor on the farm.

In 1868 he was married to Miss Abbie M. Rhamer, at St. Ansgar, Iowa. They moved to Los Angeles in 1875, since when he has engaged in farming exclusively. He is now living near Monrovia on a small fruit ranch.

During the Grange movement he was a very active member, was appointed Business Agent for a Grange Elevator Company in Mitchell county, Iowa; was one of the first, and is now one of the most enthusiastic workers in the Alliance movement of Los Angeles county, being President of Duarte Alliance No. 111 (to which 12 of his near relatives belong), an officer in Los Angeles County Alliance as well as Vice-President of Executive Board of State Alliance.

Thus it will be seen he was born, raised and educated a farmer, and thoroughly appreciates the magnitude of the issues and dangers surrounding this Alliance movement.

Much of his early life was spent with dog and gun on the frontier, which, in connection with his army training, has no doubt aided in developing him into the firm six-foot-two-inch man which the readers of this paper see pictured before them to-day. We look upon him as a man free from vice, above the average physically, mentally and morally; unselfish and always ready and anxious to work for the uplifting of humanity.

JESSE POUNDSTONE.

SEC. EX. COM., CAL. S. F. A. &amp; I. U.

Was born in Amador county, Cal., Oct. 7 1866; attended school at St. Augustine College, Benicola, and was assistant cashier of the Bank of Benicola for two years. He was married in December, 1888, when he resigned his position at the bank to engage in farming. He now conducts the well-known Poundstone ranch at Grand Island, Colusa county.

Mr. Poundstone is one of the Colusa county Board of Directors of the California World's Fair Association, and is taking an active part in having that county fully represented at the Exposition.

He recently resigned the secretaryship of the Colusa County Farmers' Alliance, and is Secretary of Grimes Grange and of the Executive Committee of the State Farmers' Alliance. His efficient labors in both are fully known to many of our readers.

Bro. Poundstone is the youngest of the elective officers of the State Alliance; is a pleasant, bright member, a good writer, and, we should judge, of brisk business qualities. He was prompt and active at the recent tri-daily business sessions of the committee. He seems evidently popular in his own community, and favorably circumstanced, with a promising career as a temperate, intelligent, progressive young man.

JAMES MORGAN.

MEMBER EX. COMMITTEE.

Bro. James Morgan was born in Columbiana county, Ohio, Aug. 7, 1832. He removed in 1844 to Marlboro, Stark county, same State, and received his education in the Marlboro Seminary, attending school in the winter and working on the farm during the spring and summer. He commenced teaching at the age of 18; and at 20 he entered the Marlboro Normal and Training School, then under charge of Mr. Alfred Holbrook, since principal of the Southwestern Normal School at Lebanon, Ohio. On completing a two-years' course in this school, he was elected principal of the Marlboro Union School and retained the place two years, then taught in Iowa, and afterward in Michigan and Ohio, and again settled down on the home farm.

Mr. Morgan served a short time in the Union army, being honorably discharged in Sept., 1864. He sold his farm in March, 1866,

and moved to the Northern Peninsula of Michigan, where he engaged in the hardware business. In April, 1868, he removed to West Liberty, Iowa, where he continued in the same business for some 13 years—most of the time owning and controlling a farm, and making a specialty of breeding and rearing pure-bred Shorthorn cattle. At the organization of the Iowa Shorthorn Breeders' Association in 1882, he was elected secretary, and retained the office until his removal to California in October, 1887.

In February, 1883, Mr. Morgan became a partner in the publication of a local weekly paper—the *Wapsie Index*—and a monthly—the *Dairy and Farm Journal*—and assumed editorial control of both. During much of the time of his residence in Iowa he was a member (and for some years secretary) of the Wapsie Farmers' Club, a real live association. He was also for 20 years connected, as director or secretary, with the Union District Agricultural Society, which allowed no liquor-selling or gambling on its grounds and always paid 100 cents on the dollar on all premiums. Mr. Morgan is a born and bred abolitionist, and was raised in a station of the underground railroad. He learned to write his name when a boy, that he might sign the Washingtonian temperance pledge, which he has never violated, having been a total abstainer from all kinds of intoxicants and tobacco in every form. He is a Republican, in full sympathy with most of the work of that party for 30 years past, especially in Iowa. He was married in 1854, and has two daughters—one married—residing in his own vicinity, near Santa Barbara.

DAVID REID.

MEMBER EX. COMMITTEE.

Bro. David Reid was born in 1832 and came to California in 1856. He spent seven years in the mines of Tuolumne and El Dorado counties, and then engaged in mining in Idaho, where he married. He went to Chico, Butte county, three years later and prosecuted the dairy and farm business up to March of last year. He was interested in the Chico water and ice works, and was one of the directors and the secretary of the O. F. B. A. from its organization. In March, 1890, owing to ill health, Mr. Reid removed to San Lucas, Monterey county, where he enjoys much better health. He has a 160-acre ranch, on which he is planting trees, vegetables and grain. He is the father of eight children. Although somewhat reserved in manner, Bro. Reid is not lacking in earnest attention in his official duties, and seems well calculated to increase in the confidence of his brethren as all become better acquainted.

## The Work in Fresno County.

Fresno County Organizer in *Central Californian*: An Alliance has been organized at Coalinga, Fresno county, with the following officers: A. R. Eckert, President; Mrs. Myrtle Douglass, Secretary; G. M. Douglass, Business Agent.

In the Lucerne valley (about Hanford, Armona and Grangeville) the Alliances are holding important conferences about establishing one or more co-operative packing-houses. Similar enterprises are being dissonsed at Oleander, Washington Colony, Fowler and Malaga. With the immense body of Alliance men in the east and south; with our facilities for direct and confidential communication with them, it will not be difficult to reach a vast number of purchasers and save many of the intermediate expenses of handling. Possibly one or more agents may be sent out to introduce the goods and stimulate consumption.

As soon as the rush of farm and vineyard work is over I shall organize several new Alliances. We must have one in every school district, for in union and numbers lies our power to make our influence felt and to secure our rights.

The regular April meeting of the Fresno County Farmers' Alliance has been changed from Malaga to Fresno, and the date from April 3d to the 2d. These changes have been made on account of the Farmers' Institute to be held at Fresno April 3d and 4th.

Prof. E. W. Hilgard of the State University, with one or more assistants, will be present to lead and have general direction of the work of the Institute.

CONVENTION OF SPOKANE COUNTY ALLIANCES. At a meeting of the Spokane County Farmers' Alliance, held at Fairfield March 7, a Committee on Credentials and Resolutions was appointed by the chair. The proposition to call a State meeting to be held at Oakesdale after some discussion was referred to the State Executive Committee, the validity of the call to be decided by the Executive Committee, the delegates from the trades council consenting. The matter of boycotting certain firms in Spokane was tabled. Farmers, unlike the labor unions, expressed themselves as opposed to the word "boycott." Resolutions were adopted in favor of free and unlimited coinage of silver, against the McKinley bill, against national banks, in favor of the sub-treasury bill, and against a third political party.

MOVING FORWARD.—Adelaida Cor. San Miguel *Courier*: Our Alliance is moving steadily forward. The subject for discussion at the last meeting was concerning the best method of serving the whole people, their general welfare, morally, socially, intellectually and financially.

## Death of Dr. W. S. Manlove.

Dr. W. S. Manlove of Brighton, Sacramento county, died March 17 of pneumonia. The Sacramento *Bee*, in noticing his death, says that Dr. William Stark Manlove came of good old Virginia stock, and was himself born at the Virginia homestead, in Dinwiddie county, on Dec. 9, 1824. He attended private schools and the University of Virginia, and graduated from the Medical Department of the University of Pennsylvania, at Philadelphia, in 1847. He practiced his profession in his native State until 1849, when, with 125 others, he organized a stock company which purchased the ship *Mary Ann*. The vessel was taken to Richmond, Va., loaded with supplies, and in March, 1849, the voyage for California was begun. After a most eventful voyage, the ship landed in San Francisco in September, 1849. The owners disposed of the vessel and cargo and the company disbanded.

Dr. Manlove remained in San Francisco six weeks, and then went to the mines in Amador county, where he remained until the spring of 1851, mining, trading and practicing his profession. He then went to Nevada City, where he located for a short time, but he finally selected this county as his permanent home. He purchased a half-section of land on the old Jackson road, seven miles east of this city, where he resided continuously up to the time of his death, with the exception of two years—1857-59—when he was sheriff of the county. He took a deep and intelligent interest in fruit culture and horticulture, and his place was in the highest state of cultivation. He was one of the first in this section to engage in grape culture, and about 100 acres of his vineyard was devoted to the finest varieties. He also had 100 acres planted to small fruits—cherries, plums, etc. He was authority on all subjects relating to fruit culture, and in 1887 was appointed a member of the State Board of Viticulture—a position which he filled with ability and credit.

Sixteen years ago he was Chairman of what was known as the Farmers' Union, which organization was succeeded by the "Grangers," Dr. Manlove being the first Master of the Sacramento Grange. He was elected President of the Sacramento County Farmers' Alliance, at a meeting held at Elk Grove on the 3d of the present month.

In politics, Dr. Manlove was a Democrat, and, up to very recent years, was prominent in the councils of his party in this State.

His wife, who was a daughter of Hon. Shubel N. Baker, a merchant in this city in early days, still survives him, as do a grown son and daughter—J. Edward and Catherine A. Mrs. Manlove, in the early years of the Grange, was elected Pomona. Dr. Manlove was well known throughout the State. He was everywhere regarded as a man of sterling worth, and one who had done much toward advancing the agricultural interests of the State.

## Farmers' Institute.

We notice that Edson Grange has requested Judge Blackwood to meet with the Farmers' Alliance of Alameda county for consultation regarding the organization of a Farmers' Institute. We take this method of notifying the Grange of Alameda County that the Farmers' Alliance would be pleased to have Judge Blackwood and a number of other delegates from the Grange meet with them at Pleasanton on Saturday, April 4, at 1 P. M., for the purpose of consultation and for organizing an Institute in our county.

GEO. W. KRAFT.

Pres. Alameda County F. A. &amp; I. U.

ALLIANCE MEETING.—The San Miguel *Messenger* says that a meeting of the Joint Committee of the San Luis Obispo and Monterey County Alliances was held at San Miguel, March 11th. They organized by electing P. T. Waggener of Parkfield president, and Mr. D. Miller of Bradley secretary. The meeting was held to discuss the mill project, and was attended by the full committee of ten. They were: Chas. A. Barlow, Chas. E. Toby, L. D. Murphy, Levi Exline and J. D. Linder of San Luis Obispo Co., P. T. Waggener, Chas. J. Lydell, S. O. Pugh, Wate Williams and David Reed of Monterey. The meeting was a very enthusiastic one, and the mill project was talked of from different standpoints, yet perfect harmony prevailed. It was deemed advisable not to give the business done publicly.

"FARMERS' ALLIANCE GIRL" writes from Melville, San Luis Obispo county: Our Alliance is still alive and having as good times as ever. At the last meeting, the Alliance was presented with a very pretty gavel by Mr. and Mrs. Hover. Bro. Waggener has been very sick with the grippe, but is better and intends to attend the meeting at San Miguel with Mr. Cole, who is chairman of the Committee on Constitution and By-laws. Mr. Waggener is chairman of the Milling Committee.

GAINING STRENGTH.—Hardscrabble Cor. San Miguel *Messenger*: The Farmers' Alliance is rapidly gaining strength in this benighted corner of the moral vineyard. The majority of the farmers belong to it, and it is to be hoped they will do a power of good, as we think there is room for a great reform. The meetings are well attended and the interest seems to be increasing.





### The Bird's Invitation.

Up in the top of a maple tree,  
A little bird sits and sings to me  
A sacred song, this Sabbath day,  
Worshipping God in his own sweet way.

And he looks at me with two pure eyes,  
Like one who is sent to evangelize,  
And seems to say, "Come sing with me,  
Just listen, and try to catch the key!"

And I have been trying to learn his words,  
And follow the play of his wondrous chords,  
And to tune my voice to the joyous note  
That swells and ruffles his gold-brown throat.

But he is beyond me! No more can I sing  
That song than fly with his dainty wing;  
And so I sit still, and let him do  
Alone, the singing service for two.

But it seems not right; I feel in me  
That I ought to sing as sweetly as he;  
That the woman's soul and the mother's heart  
Should give me in even his song apart.

But if I am silent to-day, while he  
Is splitting his throat in ecstasy,  
I know that, to me, some day shall bring  
A gift of song and a song to sing,

Which the little heart in his vest of gold,  
Is altogether too small to hold—  
A song unwritten forever more;  
No seraph even hath seen its score.

Sometimes I have felt the delicious thrill  
Of the songful tide that then shall fill  
My soul; but at best it has only been,  
As yet, a dream of what shall be then.

So, beautiful bird in the maple tree,  
You may sing and sing and laugh at me,  
As I try to mimic your song, but I  
Can afford to wait for my by and by.

—Mrs. S. M. I. Henry in Union Signal.

### Why He Turned Farmer.

[Translated for the RURAL PRESS from the French of  
André Theuriot by ALMA BLAKEMAN JONES.]

The first time that I encountered my old friend, Vital Herhelot, after a period of twenty-five years, was at an alumni banquet of the provincial lycees where we had plodded through our course. These reunions are almost always alike; hearty hand-shakings, noisy recognitions, and a jolly good fellowship that it seems strange to resume after a quarter of a century's silence; there is the melancholy perception of changes wrought by the years in faces and fortunes; and then comes the president's solemn address, followed by the toasts; and finally, the exchanging of college reminiscences, from which time has extracted all bitterness, leaving only a mellow flavor of the days when each of us held in his hand a Pandora's box full of golden hopes.

I was tolerably surprised to find this Vital Herhelot quite different from the one whose memory I had cherished. I remembered him as a slender, timid youth, looking as if he had come out of a handbox, precise and reserved, and combining all the amiable qualities of the young supernumerary who wishes to make his way in the office where his family has placed him. I now saw a jolly fellow, strong and well built, with a sunburnt neck and face, a bright eye, and the loud, clear, impulsive speech of a man who was not accustomed to weigh his words. With his hair cut like a brush, his suit of English cloth, his pepper and salt, fan-shaped beard, his easy bearing and blunt frankness, he presented no resemblance to the dapper official of other days.

"See here!" I demanded, "what has happened to you? Are you no longer in office?"

"No, my old friend," answered he; "I am a plodding tiller of the soil. Half a league from here at Chauteraine, I am farming some land, quite a patch, where I raise grain and make a little Burgundy wine—which you shall taste, if you will visit me."

"Is it possible?" I cried. "You, the son and grandson of bureaucrats, you whom they held up as the model official, and for whom they predicted a brilliant future, you have renounced your profession, have converted your gown into a scarecrow?"

"Thank God! Yes."

"How did it happen?"

"My dear fellow," replied he, smiling, "great effects are often produced by trivial causes. I threw up my commission for two peaches."

"Two peaches?"

"No more nor less; and when we have had our coffee, if you will accompany me as far as Chauteraine, I will tell you how it came about."

After our coffee, we left the banquet hall, and while we walked along the oozal smoking our cigars that warm afternoon near the end of August, my friend Vital told me his story.

"You know," said he, "that I was brought up in my father's profession, and that my

father, an old government clerk, saw nothing equal to the career of an official; also, as soon as I had taken my degree, they hastened to install me as a subordinate clerk in the paternal office. I was unconscious of any very decided conclusion as to a career and entered passively on the beaten highway of bureaucracy along which my father and my grandfather had slowly but surely advanced. I was a painstaking, well-disciplined youth, reared from the cradle with a respect for superiors and with a proper sense of the deference due to those in authority, consequently I was much noticed by my chiefs and I rapidly won my earlier promotions.

"When I was twenty-five, my chief, who had taken a liking to me, attached me to his bureau, and my comrades envied my lot. They already spoke of me as a future superior clerk and a most brilliant career was predicted for me; and then I took me a wife.

"I married a young girl, very pretty, and, what was of more importance, very good and very loving, but dowdier. It was a serious mistake in the eyes of my fellow-clerks. Of that they were very positive; they looked on my marriage as a pretty mess, and they applied the rule that 'if the husband supplies the breakfast, the wife should furnish the dinner.' Now my wife and I 'had hardly enough between us for a meager supper.' They loudly declared that I had done a foolish thing. More than one good fellow of my acquaintance rated me openly as a fool who had willfully ruined a fine opportunity.

"Nevertheless, as my wife was very pretty and a very nice little thing, as we lived modestly and by dint of economy succeeded in making both ends meet, people contented themselves with criticizing my 'improvidence' and the local society deigned to continue to receive us.

"My chief was a rich man, fond of display, and he prided himself on cutting a good figure in the world. He entertained much, gave sumptuous dinners, and from time to time he gave a ball to his officials and the noteworthy people of the town. My wife, being poorly, had to stay at home, and, as much as I would have preferred to hear her company, I was compelled to assist alone at the official receptions, for the chief would accept no refusal to his invitations, and in his service the clerks had to amuse themselves to order.

"At the very time when my wife was in a most delicate state of health, a grand ball was in order, and, as usual, willy nilly, I had to don my dress coat.

"At the hour of departure, while pretending to put the finishing touches to the knot of my white cravat, my wife gave me a great many instructions:

"It will be very fine. Do not forget to notice everything, so as to tell me all about it: The names of the ladies at the party, their toilets and the menu for supper. For there is to be a supper. It seems that they have ordered heaps of good things from Chevet's—things out of season; they talk of peaches that have cost three francs apiece. Oh! those peaches! Do you know—if you were good, you would bring me one!"

"In vain I cried out. I remonstrated with her that the thing was not to be thought of, and pointed out how difficult it would be for a gentleman in a dress coat to smuggle a peach into his pocket without the risk of being seen and ridiculed. The more I objected, the more obstinately she clung to her whim:

"On the contrary, nothing easier! No one will notice it while the guests are passing in and out for supper. You can take one for yourself and you can conceal it carefully. Don't shrug your shoulders! You may think it babyish, but I am longing for one; ever since hearing these peaches spoken of, I have had a foolish desire to taste them. Promise to bring me back at least one. Swear it!"

"How in the world can one refuse the woman he loves? I ended by murmuring a vague assent and hastened to be off, but just as I was turning the button of the gate, she called to me again. I saw her great blue eyes shining with coquetry turned toward me, and she cried:

"You promise me?"

"It was a very fine ball; there were flowers everywhere, and brilliant toilets; the orchestra was excellent. The prefect, the chief justice, the officers from the garrison, all the leaders of society were there. My chief had spared no pains to give brilliancy to this fête over which his wife and daughter graciously presided.

"At midnight the supper was served, and in pairs the dancers passed into the supper-room. With inward trepidation I forced my way thither, and had hardly entered when, in the place of honor, the center of the table, I perceived those famous peaches from Chevet's.

"They were heanties, those peaches. Rising in a pyramid from a basket of Juneville faience and tastefully arranged with vine leaves, they proudly displayed their ravishing cheeks on which a blushing red overspread the creamy white, velvety skin.

"One had only to look at them to divine the delicately perfumed flavor of that rosy, melting flesh. I eyed them fondly at a distance and thought of the joyous exclamations that would greet me on my return if I succeeded in carrying away a specimen of that exquisite fruit. They excited general admiration; the longer I gazed at them, the more my desire took the form of a fixed purpose, and the stronger grew my resolve to obtain one or two of them. But how?

"The servants on duty acted as a good guard

about the rare and costly hothouse fruit. Our host was reserving for himself the pleasure of offering his peaches to an honored few. Every now and then, at a sign from his master, the butler took up a peach daintily, out it with a silver-bladed knife and presented the two halves on a Sevres plate to the person indicated.

"Eagerly I watched these proceedings and it was with fear and trembling that I saw the pyramid lessen. However, they did not exhaust the contents of the faience basket. Whether the instructions had been cleverly carried out, or some discretion had been exercised, it chanced that when the guests, warned by a prelude from the orchestra, had thronged into the salon, there were still left half a dozen of the lovely peaches on their bed of leaves.

"I followed the crowd, but this was only a subterfuge. I had left my hat in a corner—a hat of tall shape, which had inconvenienced me considerably during the whole evening. I went back under the pretext of securing it, and as I was well known in the house, the servants took no notice of me. Besides, they were busy carrying away the plates and glasses which had served the guests; and, for a moment, I found myself alone near the table. There was not a second to lose. After a stealthy glance to right and left, I approached the basket, quickly dropped two peaches into my hat, where I concealed them with my handkerchief; then, apparently very calm and dignified, although my heart beat frightfully, I quitted the dining-hall, carefully placing the opening of the hat against my breast, and holding it thus with the help of my right hand thrust into the front of my vest, which gave me a very impressive pose, Napoleon-like, as it were.

"My object was to cross the salon quietly, to steal out unobserved, and once outside, to carry home in triumph the two peaches wrapped up in my handkerchief.

"The thing was not so easy as I had at first supposed. They had just begun the cotillon. All around the great room there was a double row of black coats and marriageable ladies inclosing a second circle formed by the chairs of the dancers; then, in the center, was a large, empty circle where the couples waltzed. I had to cross that space in order to reach the door of the ante-chamber.

"I timidly crept between the groups. I wound my way about the chairs with the suppleness of a snake. I was fearful every instant lest some brutal elbow should knock my hat out of place and cause the peaches to fall. I felt them rolling about within and I grew red up to the roots of my hair. Finally, after much trouble and many frights, I reached the clear space in the center at the moment they were organizing a new figure. A lady was surrounded by a ring formed of gentlemen who danced around with their backs toward her. She had to hold a hat in her hand, and, while they passed, to place it on the head of the cavalier with whom she wished to waltz. Scarcely had I taken two steps when my chief's daughter, who was leading the cotillon with a young member of the council, cried:

"A hat! We must have a hat!"

"At the same time she perceived me with my stovepipe pressed to my breast. I caught her eye and my very blood froze.

"Oh! said she, 'you have come just in time, Monsieur Herhelot! Quickly, your hat!'

"Before I could stammer a word, she had seized my hat so rudely that at the first touch the peaches rolled over the floor, dragging along my handkerchief and two or three vine leaves.

"You can picture the tableau. The dancers laughed behind their hands at the sight of my mishap and my rueful countenance; my chief frowned; the solemn ones whispered together, pointing at me with their fingers.

"I felt my legs tremble, and wished the floor would open and swallow me.

"The young lady hit her lips to keep from laughing and gave back my hat.

"Monsieur Herhelot," said she in a sarcastic tone, 'pick up your peaches!'

"Laughter then burst from all sides of the room. The very servants held their sides; and pale, haggard and staggering, I fled, covered with confusion. I was so overcome that I could hardly find the door, and I went home sick at heart to relate my misadventure to my wife.

"The next day the story overran the town. Upon entering the office, my comrades greeted me with:

"Herhelot, pick up your peaches!" which made the blood rush to my face.

"I could not venture into the street without hearing behind me a hoarse whisper:

"It is the gentleman of the peaches."

"The place was no longer endurable, and eight days later I threw up my position.

"My wife's uncle had a farm on the outskirts of my native village. I begged him to take me as an assistant. He consented, and we installed ourselves at Chauteraine. What more can I tell you? I resolutely took hold of the work, rising at dawn, and not complaining of hardships. It seemed that I was better adapted to farming than to scribbling, for in a very short time I became a downright farmer. The place prospered so well that at his death my uncle willed it to us. Since then I have enlarged it and brought it to the present satisfactory state in which you are about to see it."

By this time we had reached Chauteraine. There we entered an orchard full of fruit trees whose branches loaded with apples and pears

drooped to the ground. Farther on, a sloping meadow inclined to the blue river, on the other side of which rose an upland vineyard where the grapes were beginning to ripen and the thrushes were singing. To the left, behind the trees, the rumbling sound of thrashing indicated the direction of the barn; and when we had crossed the kitchen garden, we could see the white front of the dwelling-house where peach trees covered with beautiful ripening fruit were climbing on espaliers.

"You see," said Vital Herhelot, "I make a cult of peaches. I owe my happiness to them. But for them I should have remained a petty official trembling at the slightest frown of a superior, and increasing the already too numerous mob of underlings who have a hard time to make both ends meet."

At that moment I heard the joyous laughter of boys and girls within the house; and at a window, enframined in the peach-covered lattice, appeared Madame Herhelot, healthy and beautiful still, herself a ripe peach, gilded by the warm light of a magnificent setting sun.

### New Laws on Public Morals.

The following new laws have received the Governor's signature:

Amending the Gambling Act as follows:

Every person who deals, plays or carries on, opens or causes to be opened, or who conducts, either as owner or employee, whether for hire or not, any game of faro, monte, roulette, lansquenet, rouge et noir, rondo, tan, fan-tan, studhorse poker, seven-and-a-half, twenty-one, hokey-pokey, or any banking or percentage game played with cards, dice, or any device, for money, checks, credit, or other representative of value, and every person who plays or bets at or against any of said prohibited games, is guilty of a misdemeanor and shall be punished by a fine not less than \$500 nor more than \$500, or by imprisonment in the county jail not exceeding six months, or by both such fine and imprisonment.

Adding the following new section to the Penal Code relative to the sale or furnishing of tobacco or preparations thereof to persons under 16 years of age:

Every person who sells or gives or furnishes in any way to another who is in fact under the age of sixteen years any tobacco, or preparation of tobacco, is guilty of a misdemeanor, and upon conviction thereof shall be punished by a fine not exceeding \$500: *Provided, however*, that this section shall not be deemed to apply to articles furnished on prescriptions from physicians authorized by law to practice medicine, nor to persons who supply such articles to their own children, nor to sales made to such minors upon the written consent of the parents or guardians of such minors first obtained in writing by the vender.

### A Reminder of Youthful Days.

When our eyes fell upon the following clipping, it had a familiar appearance. Wonder if it has an old-time look to any of our male readers—and we also might add, to our female readers:

One of the most delicious love letters that the listener has ever read was intercepted the other day by a teacher in one of the public schools. The boy who wrote it was 10 years old, and the girl presumably of the same age. Here is the charming missive:

DEAR EMMA: I love you and I wish you would write to me I love you and I wish I could kiss you. Emma you look so rosy. I love you don't you love me? I wish you would write to me, I guess you love me. I don't care if you don't, I will write to you anyway. I want you to write to me and if you have no lead pencil I will give you one and some paper. I am so glad that you love me, Emma, did you tell that boy that lives besides your house that you was going to slap my nose? Emma, I could not help but cry when that boy told me, Emma, I thought you thought more of me. I have given you about twenty-five cents' worth of candy, and you don't treat me well, besides I give you some gum.

There is no doubt about the condition of that boy. He is in love. He may be only 15 years old, but if he lives to be 100 he will never be any more in love than he was when he penciled this letter.

IN GREENLAND, north of 75° of latitude, the entire land is covered with a sheet of ice estimated to be about 5000 feet thick over all the valley regions. So far as has been observed, no mountains are discernible above the ice, or even any elevations which can be attributable to underlying mountains. The whole is a vast plain at an elevation of from 5000 to 6000 feet above the sea level. This is probably the last remnant of the great ice cap which must, at some time in the past, have covered nearly or quite all the land from the pole to the equator.

A VINEYARDIST, that is, a will be vineyardist, put in yesterday, so it is said, hunting a Tomale tree. He was told of the wonderful profits in a Tomale orchard near Hanford, and set about at once to get a few of the trees to set out on his twenty near Selma. He could find no trees, but L. A. Rockwell says he has some fine-rooted Tomale trees in his lake warranted to grow the genuine chicken tomale. The only trouble is that the trees grow under water and the catfish in the lake eat the tomatoes before they are more than half ripe.—Selma Irrigator.

FIRST BOY (to second boy, who has been fishing)—Catch anything? SECOND BOY—I haven't been home yet.



# The Authors Unite in Acrostic

FOR THE  
Pacific Rural Press.

[Compiled by H. C. CLABBY, Cincinnati, O.]

Since brevity is the soul of wit and tediousness the limbs  
and outward flourishes, I will be brief.—SHAKES-  
PEARE.  
Use the means and God will give the blessing. It's good  
to dread the worst, the best will be the welcome.—  
PROVERB.  
Burns o'er the plow sang sweet his wood-notes wild;  
and richest Shakespeare was a poor man's child.—  
ELLIOTT.  
Sin hath broke the world's sweet peace—unstrung th'  
harmonious chords to which the angels sung.—DANA.  
Children of wealth or want, to each is given one spot of  
green and all the blue of heaven.—O. W. HOLMES.  
Religion is slow to no sect, takes no private road, but  
looks through nature up to nature's God.—POPE.  
It is the care of a very great part of mankind to conceal  
their indigence from the rest.—JOHNSON.  
Beauty is but a vain and doubtful good, a flower that  
dies when first it 'gins to bud.—SHAKESPEARE.  
Every man, however humble his station or public his  
powers, exercises some influence on those who are  
about him, for good or for evil.—SKEWICER.  
Fine thoughts are wealth, for the right use of which  
men are, or ought to be, accountable.—BAILEY.  
Oh wretched is the dame to whom the sound "Your lord  
will soon return" no pleasure brings.—MATURIN.  
Reflect upon a clear, unblotted, acquitted conscience,  
and feed upon the ineffable comforts of the memorial  
of a conquered temptation.—SOUTH.  
The idle, who are neither wise for this world nor the next,  
are emphatically fools at large.—TILLOTSON.  
He who receives a good turn should never forget it; he  
who does one should never remember it.—CHARLTON.  
Everywhere throughout all generations and ages of the  
Christian world, no church ever perceived the word  
of God to be against it.—HOOKER.  
Perseverance wins each God-like act and plucks success  
even from the spear-proof crest of rugged danger.—  
HAYARD.  
All deception is nothing else but a lie reduced to prac-  
tice, and falsehood passing from words to things.—  
SOUTH.  
Charity is a tribute imposed by Heaven upon us, and he  
is not a good subject who refuses to pay it.—FREO-  
HAM.  
If we will stand boggling at imaginary evils, let us never  
blame a horse for starting at a shadow.—L'ESTRANGE.  
Frugality may be termed the daughter of prudence, the  
sister of temperance and the parent of liberty.—  
JOHNSON.  
It is hard to jest and not sometimes fear too, which  
oftentimes sinks deeper than was intended or expect-  
ed.—FULLER.  
Common sense is a phrase employed to denote that de-  
gree of intelligence, sagacity and prudence which is  
common to all men.—FLEMING.  
Reason cannot show itself more reasonable than to leave  
reasoning on things above reason.—SIDNEY.  
Under the divine influence the weaker sex becomes ca-  
pable of the most difficult enterprises.—BURKE.  
Repentance so altereth and changeth a man, he ever  
so deified, that it maketh him pure and clean.—  
WHITFOIT.  
A good man's prayers will from the deepest dungeon  
climb to Heaven's high, and bring a blessing down.—  
BAILEY.  
Life's evening, we may rest assured, will take its char-  
acter from the day which has preceded it.—SHUTTLE-  
WORTH.  
Power, when employed to relieve the oppressed and  
punish the oppressor, becomes a great blessing.—  
SWIFT.  
Resignation casts a grave but tranquil light over the  
prospects of even a toilsome and troubled life.—HUM-  
SOLDT.  
Employment is so essential to human happiness that in-  
dolence is justly considered the mother of misery.—  
BURTON.  
Scaliger, in comparing the two orators, says that nothing  
can be taken from Demosthenes nor added to  
Tully.—DENHAM.  
Study to fill your mind. Gold and silver were origi-  
nally mingled with dirt until avarice and ambition parted  
them.—SENECA.

## Chaff.

JUDGE—What is this man charged with?  
Officer—Electricity, your honor. He stole  
a battery.  
THE difference between a starving man and a  
glutton is that one longs to eat and the other  
eats too long.  
THE cat has nine lives, which shows that  
nature had a pretty fair idea of what the cat  
would have to go through.  
CHAWLEY—Your dog won't bite me, will he?  
Farmer Spinwheel—Gosh! I hope not. It spiles  
'em for rabbits when they get dude blood in  
their veins.  
A MAN told his daughter that if she learned  
to work he would give her a surprise. She  
learned the art, and he surprised her by dis-  
charging the servant girl.  
"I DON'T know what it is, Mark, but I can't  
hit a bird to-day!" "Let's see your gun, sir.  
Ahl well, I'd try what you could do with some  
cartridges in it, if I was you, sir!"  
A WOMAN'S dress, recently invented, has no  
less than six pockets. The man who cannot  
find the one pocket in his wife's dress is going  
to have a life job when he undertakes to look  
for six.  
YOUNG WIFE—I am your treasure, darling!  
Young Husband—You are indeed. I don't see  
how I had the good luck to get you. Young  
wife—Oh, well, you know, mamma attended to  
that! It wasn't luck.  
OLD GENTLEMAN—Louie, I heard some one  
being kissed once or twice in the hall last night.  
Was it you? Louie (blushing)—Once or twice  
did you say, papa? Old Gentleman—Yes.  
Louie—Then it wasn't I.  
BRIDGET (in the witness-box)—Did he have  
an impidimint in his spach? Faith, an' that he  
had; for his false teeth were loose an' kept  
jimplin' up an' down, hitin' the words in two.  
Shure it was an impidimint he had!  
PRIVATE THEATRICALS—Fond Parent (to Pro-  
fessional Lady)—Tell me, Miss Le Vavasour,  
did my son acquit himself creditably at this  
afternoon's rehearsal? Miss Le Vavasour—  
Well, my Lord, if your son only acts the lover  
on the stage half as energetically as he does in  
the green-room, the piece will be a success.

# YOUNG FOLKS' COLUMN.

## Little "Put-Off."

"I'm going to ask Jessie to come and see me  
this afternoon after school, mamma."  
"Are you, dear?"  
"Yes; and couldn't you let us have a little  
afternoon tea?"  
"I think I could."  
"Something very nice?"  
"I'll see about it."  
"I know what that means," said Patty,  
giving her mamma a very nice, loving kiss.  
"But wait, Patty," said mamma, as the  
little girl was tripping away. "I want you to  
come straight home, so as to attend to your  
little duties before Jessie comes."  
"My darning my own room, you mean?"  
"Yes; it ought to have been seen to this  
morning, hey, Patty?"  
"Yes, mamma; but I had to study my read-  
ing lesson this morning."  
"I thought the evening was always the time  
for that."  
"But I put it off, because I wanted to play  
checkers with Jack."  
"I wonder if my little daughter will ever  
learn not to put off duties for pleasures. And  
it seems to me there was something out in the  
arbor which ought to have been looked after."  
"Oh, I remember. I was pasting scraps out  
there with May the day before yesterday, and  
I put off picking up the things till morning;  
and then I wanted to weed my flowers."  
"I hope you will do it before Jessie comes."  
"That's what I mean to, mamma. Good-  
by."  
"Where's mamma?" asked Patty, on her  
return from school after the short afternoon  
session.  
"She's gone out," said Jane, the girl.  
"Gone out! Did she say anything to you  
about a little snapper for me, Jane?"  
"No; I didn't hear anything about it."  
"That's very strange of mamma," said Patty.  
"She must have forgotten it. Oh, perhaps  
she put it off until she comes home. I wish  
she hadn't."  
The "put-off" reminded Patty of the room  
she was to dust. But as she passed a window  
she caught sight of some of her flowers which  
grew outside.  
"Oh, my pansies!" she cried in great concern;  
"they are all drying up and withering." She  
was very fond of her flowers; and everything  
else was for the moment forgotten, as she  
hurried for some water to give them.  
"You dear little things," she said, "you  
almost seem to know I am giving you a nice,  
cool drink. You look just as if you wanted to  
say, 'Thank you.' Oh, I wish I was a fairy,  
and lived in the times when they could hear  
flowers and lambs and birds and things talk."  
Walking on with her watering-pot, dreaming  
of delights of such a condition of things, she  
came near the arbor.  
"Now I must tidy up the arbor. Jessie'll  
be here in a minute, and I'd better put off my  
dusting until she's gone home. I shan't take  
Jessie up to my room; I'd hate to have her see  
how untidy it is. I do wish mamma did not  
think little girls ought to keep their rooms  
dusted and pick up their things after they're  
done playing. Ah! look at that great weed  
growing so near that beautiful white lily."  
The weed was removed with little fingers  
which took tender care not to disturb the roots  
of the queenly lily. And then Patty looked  
up and smiled a very loving greeting to a blue-  
bird, which chirped above her in the branches  
of a tree.  
"There you are, you little beauty! Are  
you singing to this lily? Of course you are.  
You sing to the flowers all day, don't you?"  
And off went the little lassie into a train of  
fancies to which flowers she would sing to often-  
est if she were a bird, springing up at length  
to say:  
"But I must be sweeping the arbor."  
Sheran for the broom; and as she hurried  
back, her little friend Jessie came down the  
garden walk.  
"Ahl! there you are, Jessie. I'm glad to see  
you. I was just going to sweep the arbor,  
but it can wait till you go."  
The sweeping of the arbor would not have  
taken more than five minutes; and Patty felt a  
little prick of conscience as she led the way to  
another part of the large, pleasant garden.  
But she quieted it with the reflection that it  
would not be polite to work when she had  
company, and that of course mamma would not  
wish her to.  
They played croquet for awhile, and then  
made dolls of daisies and hollyhocks. When  
they had a long row of the flower maidens,  
Patty thought it was full time for the treat  
which had been promised; and, excusing her-  
self to her friend, she ran into the house.  
"Hasn't mamma come yet?"  
"No," said Jane.  
"Dear me, Jane, can't you give us some-  
thing nice for a tea with Jessie?"  
"I don't know, I'm sure," said Jane, good-  
naturally. "To-morrow's baking-day; and  
there's nothing much in the house now, for  
we're to have hot hisonits for tea by and by."  
"Not a hit of that cocoanut cake?"  
"Not a hit," said Jane, going to look.  
"There was a little this morning, I know."  
Jane did what she could for her; and Patty  
returned to the garden with a piece of apple-pie,  
some crackers, and a little currant jelly—a very

poor sort of tea she thought—and wondered  
more and more how mamma could have neglect-  
ed to see to it when she had promised.  
Mamma was famous for getting up nice little  
treats when Patty's friends came, and it was  
easy to see that Jessie was rather surprised.  
Patty's mother came home a few minutes  
after Jessie was gone, and Patty met her at  
the door with a very mournful face.  
"I suppose, mamma," she said, "that you  
put off fixing my nice little tea until you came  
back. But it's too late now, for Jessie's gone."  
Mamma smiled at Patty's injured tone, and  
asked:  
"Did you dust your room, dear?"  
"No, ma'am; I went to water my pansies,  
and—"  
"Did you clean up your paper in the arbor?"  
"No, ma'am; I put it off because Jessie  
came."  
"Well, I think you had better go at once  
and do them."  
Not one word of regret for the neglected  
afternoon tea.  
Patty went up to her room and began dust-  
ing.  
What was that behind her toilet cushion?  
A game for which she had been for some time  
longing. There it had been all the afternoon,  
when it would have been such a delight to try  
it; for they had become tired of those flower  
dolls.  
She put her room in good order and then  
went down to the arbor. An unfolded napkin  
lay over something in the seat, and Patty lifted  
it up to see what it might be hiding.  
"Oh, my!"  
What a dainty lunch lay on the little tray!  
The last of the cocoanut cake was there, with  
macaroons and kisses, some cunning little  
sandwiches, sliced pineapple, and bunches of  
grapes. And Jessie was gone, and there was  
no one to see it or help her enjoy it.  
Poor Patty sat down and cried. Then she  
swept the arbor, singing to herself:  
"Oh, dear! If only I hadn't put off!"

# DOMESTIC ECONOMY

## The "Servant" Question.

EDITORS PRESS:—There is no end to the  
senseless articles that crowd newspaper and  
magazine columns on the subject of kitchen  
girls. Prominent women in New York City  
and elsewhere have formed societies, ostensibly  
to solve the knotty problem of domestic serv-  
ice, but the result has generally been to build  
the social fence higher and stronger that sepa-  
rates mistress and maid. The unconscious,  
unexpressed sentiment possessing the souls of  
these would-be helpers is that labor is dishon-  
orable.  
It is pleasant for many women to have a  
companion, a congenial, helpful friend in the  
family as well as a servant, one that children  
can safely imitate her manners and language  
and one to whom they can with safety be  
trusted in the mother's absence.  
With this thought in mind, I am thankful  
that a highly cultured gentleman of enviable  
position in the community in which he resides  
has, without making the "help" question the  
harden of his article, given a hint of the better  
way in which our family affairs may be  
managed. Mr. M. L. Ward of Chula Vista, in  
an essay on that model town read before the  
County Horticultural Convention of San Diego,  
has the following to say of the household  
service of his little Eden:  
It is a peculiarity of this country that each in-  
dividual imagines he lives in the most favored locality  
on earth. We at Chula Vista are no exception to  
the rule.  
It seems to us that we have in some respects quite  
an ideal community. We have a Union Sunday-  
school; Union church services; a literary society,  
maintained by the young people, besides our Im-  
provement Society. There is a good wholesome  
sentiment there upon some vexed social questions.  
Our wives who need assistance to do the housework  
employ the young ladies who can be spared from  
their own homes—young ladies who are educated  
and accomplished, and who would grace any com-  
pany; who would entertain perfectly in the parlor,  
and yet who are accomplished housekeepers and  
good cooks, and have the good sense not to be  
ashamed of the fact nor the foolish vanity to refuse  
to employ their talent for the good of themselves  
and others. They are made welcome as valuable  
members of our families and treated as such. At one  
of our public meetings held a few weeks ago, there  
was a paper read by one of the brightest, most in-  
telligent and wealthy ladies in San Diego county,  
being one number on the program, and upon the  
same program there was a number scarcely less  
meritorious, given by the young lady who presides  
over the kitchen in the wealthy lady's house.  
With such an advocate of manual labor, it is  
to be hoped that the influence of his words may  
awaken the minds of women and good girls to  
the fact that intelligence, education and lady-  
like demeanor are not incompatible with help-  
fulness everywhere. The kitchen and dining-  
room may be made as holy ground as the  
school-room, office or store. B. B.

# GOOD HEALTH.

## Failure of a Noted Case of Skin- Grafting.

Some two or three months since Mr. John  
O. Dickerson, a prominent Mason of Chicago,  
had a cancer removed from his person by the  
knife. The wound refused to heal, and 132 of his  
brother Masons came heroically to his relief.  
Each allowed a piece of skin to be removed from  
his person, to be transplanted upon the body of  
the afflicted brother. The victim of cancer and  
the surgeon's knife died February 24th.  
It is truly melancholy to know of the im-  
mense suffering and loss of life by this fearful  
cancer malady all over the country and the  
world. Over 2000 people are dying of this  
dread disease in the United States every  
month, and yet we have in this city a most un-  
doubted cure for it, to which we have been  
calling the attention of our physicians and the  
people generally for some four years past, with  
very little response from either the physicians  
or the press, although great numbers of the  
people are becoming interested in the matter.  
We have given masses of testimony of every  
character from patients that have been cured  
and from individual physicians who have  
watched the successful treatment of patients  
with more or less carelessness; but the faculty  
as a body have thus far refused to investigate  
or make any official report either for or against.  
We are pleased, however, to state that several  
of the more considerate are beginning to give  
the cure some attention, and are watching the  
convalescence of several very pronounced cases  
now under treatment, and it is to be hoped that  
the result in those cases will lead to an official  
investigation by our City Board of Health or  
some other official body.  
We have no interest in the matter, so far as  
the practitioner is concerned. The end which  
we desire to reach is such an official medical in-  
vestigation as will place the value of the as-  
serted remedies beyond all controversy. If  
such investigation should prove favorable,  
there are those who stand ready to do what-  
ever may be required to place the remedies in  
the hands of physicians everywhere. We hold  
that the evidence is amply sufficient to war-  
rant the Board of Supervisors in asking the  
City Board of Health to look into this matter  
officially.  
THE TREATMENT OF DANDRUFF.—Dr. Ed-  
ward Clarke, in the *Lancet*, states that he has  
had good results in persistent dandruff from the  
following treatment: The scalp should first  
be thoroughly washed with soap and hot water  
and then thoroughly dried with a warm and  
soft cloth; there should then be rubbed into  
the scalp a glycerole of tannin, of the strength  
of 10 to 30 grains to the ounce. Very obstinate  
cases will require the higher strength of tannin.  
This process should be repeated twice a week  
at first, once a week afterward. If tannin  
fails, as it will in some cases, then resort is had  
to resorcin. After the formation of dandruff  
has ceased, the head should be rubbed daily  
with olive oil containing, to the ounce, ten  
grains of carbolio acid and a dram of oil of cin-  
namon.  
THE MICROBE OF RHEUMATISM.—A distin-  
guished French physician, after much research,  
thinks he has discovered a micro-organism, spe-  
cific in character, which is the direct cause of  
rheumatism. He reports that he has isolated  
and cultivated the microbe, injected it into the  
carotid artery of rabbits, and engendered an  
inflammation which to all indications is the  
same which accompanies inflammatory rheuma-  
tism in human beings. These investigations  
will undoubtedly stimulate parallel researches  
by other investigators and may lead to import-  
ant therapeutical results.  
POISON IN WALL PAPER.—We have already  
called attention to the fact that there is danger  
of poison from wall paper, especially that which  
contains green colors, which are generally pro-  
duced by arsenic. We see by an Eastern ex-  
change that ex-Mayor Oohh of Boston is now  
suffering from what is pronounced an incurable  
illness attributed to the absorption of arsenical  
poison from wall paper in his own house.  
PEPSIN IN PINEAPPLE.—It is stated that there  
is an element in the common pineapple similar  
to pepsin, and of such remarkable strength  
that the juice of a single apple will digest ten  
pounds of beef. It is further stated that the  
juice of the fruit is a very active solvent of the  
membrane found in diphtheria.  
A DIPHTHERIA LYMPH.—The Government  
medical authorities at Washington have, after  
many experiments, announced the discovery of  
a lymph which gives immunity from diphtheria,  
and they hope to make it a certain cure for that  
disease.  
HAIR DYES should always be avoided. All  
the various "hair restoratives" are both un-  
wholesome and uncleanly. The loss of color of  
the hair depends upon constitutional causes,  
and it is rarely or never restored.  
DIED OF TOO RAPID GROWTH.—A 15-year-  
old boy has just died in Brooklyn, N. Y., of  
too rapid growth. At the time of his death he  
was six feet two inches tall, but did not weigh  
100 pounds.





A. T. DEWEY.

W. B. EWER.

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## Business Announcements.

(NEW THIS ISSUE.)

Poultry and Poultry Supplies—Pacific Incubator Co., Oakland.

Dry Goods, Etc.—Weinstock, Lubin & Co., Sacramento.

Dairy Machinery—G. G. Wickson & Co.

Sale of Trotting Stock—Killip & Co.

School Furniture and Supplies—J. Dewing Co.

Blue Ribbon Cart—Frank Brothers.

Whale Oil Soap—Arctic Oil Works.

Scales, Trucks, Etc.—C. H. Lindemann.

Mechanical School—A. Van der Naillen.

Organs and Pianos—Daniel F. Beatty, Washington, N. J.

Poultry—Woodside Poultry Farms, Danville.

Poultry and Pige—Dellwood Poultry Yards, Napa.

See Advertising Columns.

## The Week.

Showers have continued over a considerable area of the State, and the abundant moisture with a higher temperature has brought forward a growth of alfalfa and clovers which has beautified the valleys and hillsides and brought joy to the stockman. Grain is growing well and the outlook for hay and threshed crops is as good as could be asked.

The citrus fair at Los Angeles, of which we present the first installment of our report upon another page of this issue, was a notable success, and will do much to spread the fame of the State. It is announced that with the material gathered and the surplus funds coupled with private subscriptions, there will be a citrus fair opened in Chicago, which will further spread the renown of the Southern counties. The State Board of Trade also inclines now to fixed exhibits at good Eastern points, and it is likely that such displays will be set up.

The Legislature is still struggling with the

Senatorial question, and up to our going to press on Wednesday afternoon no choice has been made. The air is full of ugly rumors of corruption, but the public is awakened and it is doubtful if such measures will succeed even if attempted. It is time something were done to abolish these disgraceful Senatorial fights. Let the people elect the Senators; this seems to be the only solution of the question.

## The Eastern Corn Situation.

Although corn is one of the minor cereal grains of California, the corn situation at the East often exerts marked effects in California. When corn is abundant and cheap at the East, it is brought to this coast and largely used as a feed grain, thus taking the place of California-grown barley and reducing the market price thereof. Now that the season promises good cereal crops here, and as the barley acreage is probably considerably larger than usual because of the apprehension of a season better suited to barley than wheat, it becomes of much importance to local barley-producers to know the corn situation in the great West. We find in an interesting circular just issued by Bartlett, Frazier & Co. of Chicago, on the available supplies of corn and kindred matters, the following significant paragraph:

From the facts as above stated, we think there is but one conclusion to be drawn, and that is that never in the history of the trade in this country has there been such a small proportion of feeding grain to consumptive requirements as exists at the present time, and this we consider the true explanation of the fact that, in spite of the perfect weather conditions for the delivery of grain that have existed ever since harvest, and in spite of prices that in ordinary years would have brought the grain to market, we now enter the season of unsettled weather, bad roads and spring work, not only with the smallest visible supply of corn ever known in this country, but with the smallest amount ever known in country cribs and warehouses.

It seems that the local consumption of corn in the great producing States of the West is rapidly increasing. Hon. J. R. Dodge, Statistician of the Department of Agriculture, says in his December report:

Our annual records show that five-sixths of the crop (corn) is consumed in the country where grown, only about 20 per cent being distributed beyond county lines. This consumption on the farm is in the nature of a fixed requirement for work animals, meat production, seed, etc., and is a demand not flexible in its character. The stimulus of high prices would, of course, shorten to some extent the rations of beasts, but very high prices indeed must rule before the commercial supply would be largely augmented at the expense of home consumption.

This statement not only accounts for the small supplies of corn available in the Western centers, but it indicates indirectly the increase in the cattle census, which also has an effect upon values out here and shows that the cattle-growers in the range States and Territories must not overlook the tendency toward greater meat production in the States of the Mississippi valley. Messrs. Bartlett, Frazier & Co. cite the following figures:

On Jan. 1st, '88, there were in the United States 15,363,000 horses and mules, 49,234,000 cattle and 44,346,525 hogs. In the seven surplus Corn States of Ohio, Indiana, Illinois, Iowa, Missouri, Kansas and Nebraska, there were 4,810,000 horses and mules, 14,803,797 cattle and 20,802,110 hogs. On Jan. 1st, '91, there were in the United States 16,352,750 horses and mules, 52,895,239 cattle and 50,625,106 hogs. In the seven surplus Corn States enumerated above, there were 5,205,796 horses and mules, 17,262,112 cattle and 26,208,193 hogs. In other words, on Jan. 1st, '91, we had in the whole country 989,750 horses, 3,661,239 cattle and 6,278,581 hogs more than Jan. 1st, '88, and in the seven surplus Corn States 395,796 horses, 2,458,315 cattle and 5,406,088 hogs more than on Jan. 1st, '88.

The West evidently proposes to try the profit in condensed products. They have grown weary of producing cheap grains and are trying the experiment of turning the grain into milk and flesh and marketing such articles instead of grain. As before stated, this new direction of production has bearings upon values on this coast, and therefore we bring the facts concerning it to the attention of our readers.

CALIFORNIA WHEAT FOR FRANCE.—A feature of the wheat market this year is the heavy buying for account of French importers. Last year no cargo was cleared at San Francisco for Havre direct. This year there have been quite a number, with the clearances in this month being almost entirely for French ports.

## Water Rates in Towns and Cities.

Many readers of the RURAL live in towns and cities, and are, therefore, interested in water rates of municipalities. Even those who do not live in towns have an open eye for water prices, for the subject is of vital interest everywhere in California. For this reason we present the results of a systematic inquiry, made by one of our most progressive cities in this direction.

The Citizens' Committee of One Hundred of Oakland sent out, some time since, a number of circulars to the larger cities of the United States with a view to obtaining information as to their water supply. The questions asked were as follows:

1. Is your water supply drawn from wells, lake or stream?
2. Is water furnished you by a corporation, or does your city own the plant?
3. If water is furnished by a corporation, by whom and how often are the rates fixed?
4. If water is furnished by a corporation, what arrangements have you with them for furnishing water for public use, viz: street sprinkling, Fire Department, public buildings, etc?
5. If your city now owns its plant, but water was formerly furnished you by a corporation, what was the chief cause or causes that brought about the change?
6. Does your water require filtration, and, if filtered, by what process?
7. What proportion of your consumers use meters?
8. If city owns plant, is it a source of profit or expense?
9. Do your people appear to be satisfied with your present water service?
10. Can you send us list of rates charged or any other literature on the subject?

In response to this circular letter issued by Recording Secretary J. W. Dutton, answers were received from 172 cities, and with these answers came a mass of information pertaining to the subject, in the form of letters and reports, all of which have been carefully compiled by Prof. Frank Soule, of the State University, Corresponding Secretary of the Committee.

This compilation has not yet been published, but the following is a brief summary of the facts and figures contained in the manuscript copy now in the possession of the Committee of One Hundred.

## SUMMARY.

No. of cities answering questions of committee.....	172
No. of cities owning their own water works and water service.....	120
Of these, satisfactory.....	105
Unsatisfactory (on account of quality of water).....	8
Not stated.....	7
No. of cities in which water works were controlled by private corporations.....	52
Satisfactory.....	22
Unsatisfactory.....	30

The reports from 162 cities in the East where water-meters are used are as follows:

Average minimum price per 1000 gallons.....	9½c
Average maximum price per 1000 gallons.....	25c

## IN OAKLAND.

Average minimum price per 1000 gallons.....	30c
Average maximum price per 1000 gallons.....	65c

In 162 Eastern cities the following are the average annual rates:

Dwellings, one family.....	\$6 35
One bath-tub.....	3 44
One horse.....	2 04
One water closet.....	3 70
Lawn, 60x120 feet.....	1 35

In Oakland the annual average rates are as follows:

Dwellings, one family.....	\$27 60
One bath-tub.....	6 00
One horse.....	6 00
One water closet.....	4 20
Lawn, 60x120 feet.....	\$9 96

Other items bear the same general ratio. Except in case of replies from private water companies themselves, the opinion is unanimous that the city should own the water works and control the service through a Board of Water Commissioners.

Since the compilation of these figures, the City Council of Oakland has reduced the rates of the company slightly, especially in the case of smaller dwellings. But in the opinion of the citizens, the rates still continue much too high. The same condition exists in a number of other towns in this State.

GOATS.—A recent issue of the Statistician's monthly publication from the Department of Agriculture reproduces the greater part of the manifesto which our Angora Association recently adopted, asking that the Government assist in the securing of pure Angoras from Turkey and the keeping of the same upon proper stations where they would be available as sires to our goat-breeders. We are glad the measure is attracting attention.

PROTECTION TO MINORS.—The Governor has signed the bill prohibiting the selling or giving of liquors in any quantity to minors under 16 years of age. The bill also makes the keeper of any place where games of chance are played guilty of a misdemeanor if he permits minors to be present or take part in such games.

## The Santa Clara Fruit-Growers.

The fruit-growers of the west side of the Santa Clara valley are going ahead with their organization in opposition to the fruit-buyers' combine, although, as was stated at the meeting on March 10, the buyers have been obliged to "back down considerably."

The by-laws of the new growers' organization provide for a payment of 20 per cent of the par value of the stock at once and the balance as the directors may order; no person can own more than 25 shares, nor can any one be admitted who has not five acres of orchard or vineyard; no one can sell other fruit than he grows through the organization; no one can own stock whose interests as a buyer are greater than as a grower.

If the corporation handles only the fruit of its members, the profits, if any, shall be divided in proportion to the amount of fruit each one delivers to the association. Should the corporation buy fruit from persons not stockholders, the profit, if any, upon fruit so bought, shall be divided among the stockholders.

The following were elected directors: S. P. Sanders, Colonel E. G. Hall, S. Lydlard, E. T. Pettit, A. R. Woodhams, Philo Hersey and Captain Blake.

## Weather Injuries in Europe.

European horticultural journals have been rather dreary reading for the last few weeks. The vast losses of garden and florists' stock by the heavy winter makes one sad both for the plants and their owners. To the rich it means temporary desolation of beautiful grounds; to the poor it means want and discomfort. The fruit interests of South Europe have suffered severely. The olives and citrus fruits in their traditional homes in Spain, France and Italy have been measurably ruined. Nor did the severe December and January freezes complete the evil, for it is telegraphed this week that advices from Sorrento, Italy, say the damage to the orange and lemon crops has been enormous and was caused by a gale of wind which swept all the leaves off the trees, leaving the oranges and lemons without protection. The crop will be reduced about 75 per cent. Had it not been for the gale, Sorrento would have shipped during the spring fully 300,000 boxes of oranges. The lemon crop has suffered chiefly from the hail. Sorrento will not export this summer much over 20,000 to 30,000 boxes of lemons, instead, as formerly, about 100,000 boxes.

## The New Public Land Law.

We give considerable space in this issue to the full text of the new law concerning the acquisition of public lands of the United States. The new law should be carefully read by all intending settlement upon public lands and should be filed away for reference by all those likely to be called upon for information of this character. Since the enactment of the law a circular letter has been issued from the General Land Office to registrars and receivers concerning its execution. The office holds that all bona-fide claims lawfully initiated under the new law prior to March 31 are protected. The letter says in part: "Timber-culture applications pending before the date of the approval of the recalling Act should be passed on with reference to the special provisions therein in favor of bona-fide claims lawfully initiated, including pre-emption claims, when the settlement is alleged."

NOT FOR REFINING.—It is telegraphed from Washington that Assistant Secretary Spaulding has decided that the law which admits duty free until July 18, 1892, machinery used in the production of beet-sugar, does not apply to machinery used for refining beet-sugar. This is rather a peculiar decision. It would be no more than right, perhaps, that Mr. Spaulding should be put upon a diet of raw sugar for awhile.

SWEET WINE ANALYSES.—Prof. Hilgard has published a statement, in answer to misleading telegrams sent from Washington, that he has not retracted his charges against the defective system of analysis of sweet wines authorized by the Revenue office, and which he describes as grossly inaccurate. The full statement in last week's RURAL gives Prof. Hilgard's position and the analyses upon which it rests.



## HORTICULTURE.

## The Southern Citrus Fair.

(Written for the RURAL PRESS by CLARA S. BROWN.)

The second annual citrus fair of the Sixth Congressional District, under the auspices of the State, opened in Hazard's pavilion, Los Angeles, on the evening of March 10th. It had been deferred a week on account of the washouts that blockaded all the railways in the southern part of the State, still the large force of workmen engaged in preparing the designs of the fair, assisted as they were by many ladies, found it necessary to labor far into the night for days before the opening. The task was greater than last year because at that time most of the fruit was spread out upon tables, making a gorgeous mass of coloring as one looked down upon it from the galleries, and no attempt at elaborate designing was made. This year it was thought best to vary the character of the display, and to that end a special premium of \$400, to be paid from the gate receipts, not out of the \$2500 allowed by the State, was offered for the best design in citrus fruits. Over 20 localities responded enthusiastically, and the result forms a scene which must be gazed upon in order to be comprehended.

As one followed the crowd into the spacious building—the main room is 120x166 feet in dimensions, with an arched ceiling 57 feet in height—and stood just inside the main entrance confronted by a Turkish mosque, like concentrated and solidified sunlight in color, and beyond caught glimpses of other wonderful conceptions through the moving mass of humanity, it seemed futile to attempt a description. The task is beyond any pen to adequately portray. Bear with me, then, while I give you a bald outline of the glowing reality.

The hall is elaborately draped with strips of pink, green and orange bunting, extending from the center of the roof to the sides of the upper gallery. Both galleries are festooned with cypress and studded with rosettes of blue and orange, and under the lower gallery is a delicate tracery of ivy. Looking straight across the hall, one sees over the stage the immense arch erected by Los Angeles county (not for prize purposes, however). It is 72 feet wide and reaches to the top of the building. The effect is that of tri-colored squares and is accomplished by using oranges with red and blue wrappers. In the center, on a green background, are the words "State Citrus Fair" in immense gilt letters; below are suspended the words "Los Angeles County" in silver letters. This beautiful arch is illuminated at night by a star of incandescent lights. Beyond, well back on the stage, stands a model of the new County Court House, upon which members of the Ladies' Annex to the L. A. Chamber of Commerce have worked for days. It is complete, even to the clock in the tower, and when illumined excites much admiration. Upon this 40 pounds of raisins were used in delicate fresco work, and 7500 limes, tangerines and oranges, besides a quantity of dried fruits. On the stage at the left is Pomona's long table of fruit; on the right, Vernon's packing-house and car. In the center of the hall, Pasadena's tower rises 40 feet. To the left of it is Redlands' wondrous arch and facsimile of the Bear Valley dam. Between them stands "the old oaken bucket" and well-sweep contributed by Whittier. Beside Duarte's mosque stands the gravity car used on Euclid avenue, Ontario. At the right of the hall is the gateway of "Sunny Slope" and a model of the old Mission at San Gabriel. Beyond is an Egyptian design furnished by Glendora, Azusa and Covina; and next the stage rises the pagoda of Rivera. These designs will be described further.

All the space in the first gallery is occupied by Santa Barbara county, San Diego county, Boyle Heights, the W. C. T. U., the ice-cream parlor, the band-stand, and some minor booths. If Riverside and Orange county had exhibited, it is difficult to see how room for all would have been obtained, for the building appears to be full now.

## Los Angeles County.

Los Angeles county exhibits are mostly in the main hall. Beginning at the right hand, or southeast corner, one comes to a table about 12 feet square, surmounted by a beautiful silk banner inscribed "La Canada; J. L. Lanterman." The exhibit is Mr. Lanterman's entirely, and is piled up on the table and arranged in terraces at the back, divided by rows of English ivy. There is a pyramid of lemons and Navel oranges, in one side of which a box of nice-looking raisins is fixed. It rises from a bed of choice Navel and Malta Bloeds and is crowned with a cluster of calla blossoms.

Cahuenga, as usual on such occasions, makes a display of great variety, which is tastefully decorated and adorned with choice flowers. This settlement is one of the chief garden spots of Los Angeles, lying close to the foothills and protected from frosts. On her sunny slopes vegetables ripen earlier and more persistently than almost anywhere else, and she ships large quantities to Eastern markets. On a table 12 feet square were crowded Lima beans, string beans, peas, tomatoes, egg-plants, loquats, St. Michael oranges, limes, and raspberries and blackberries, just setting their fruit, from the ranch of W. S. Benedict; also citrons, limes and large seedling oranges grown in adobe soil

without irrigation by ex-Senator Cornelius Cole; large Navels, cherimoyas or custard apples, and St. John's bread-fruit, grown by Jacob Miller. For the first time I here tasted a cherimoya, and found it delicious. One of the Santa Barbara attendants asserted that it was the most delicious fruit grown in California. It should be better known. H. Stoll has a box of dried white Smyrna figs, Eureka lemons, bottles of Hamburg claret, canned fruit and jellies. Frank Alderson shows two boxes of tomatoes. Back of the table, a half-pyramid is built against the wall composed of oranges and lemons decorated with English ivy, and in front stand two banana trees bearing clusters of fruit, the property of M. L. Yager and Jacob Miller. The coffee plant with its green berries is an object of interest.

Next comes the Cucamonga table mentioned elsewhere, then the unique booth planned by Santa Monica. Its sides are covered with canes and fish net; in the rear is a sea view painted on canvas; in one corner a rustic-house of bark. The flooring is raised on one side to simulate a wharf, and covered with palm leaves; to it is moored a boat piled high with oranges and lemons contributed by J. Steere. Here are sea shells and mosses and exquisite baskets of flowers. Over the door hangs a bunch of bananas grown by M. H. Kimball. Clusters of Navel oranges, exhibited by E. H. Sweetzer, ornament the sides. Santa Monica's purpose was to demonstrate both the beauty of her situation by the sea and her capability of growing citrus fruit, if not to the perfection attained by foothill lands, at least to a satisfactory degree of goodness.

She attests this by baskets filled with oranges, lemons, limes and loquats, grown by W. D. Vawter, O. H. Baxter, H. H. Dow and Mrs. N. B. Boyce. Mr. Vawter also exhibits walnuts, and Dr. J. S. Elliott has a fine lot of Navel, Malta Blood and seedling oranges, lemons and limes.

Now we come to a table 20 feet long and 6 feet wide over which is a large sign—"Artesia and Norwalk; Without Irrigation." Some nice-looking fruit is heaped upon the table and rises on a bank at the back. The trimmings are pine and spruce, bouquets of callas, and a centerpiece of pampas plumes. I did not find any one in charge of this table, and as no information was to be derived from the cards, only general mention of it can be made.

These tables are all under the east gallery. Next in order is an arbor marked "Rivera," which is but a small part of Rivera's exhibit. The main design stands out beyond the gallery, at the right of the stage, and is a beautiful pagoda 25 feet in height. The floor space allotted to Rivera is 12x60 feet, and half of this is raised two feet and laid out in imitation of ornamental grounds, from which the pagoda rises to its imposing height. An octagonal column of walnuts in glass cases rests on a base of stars and other figures worked out in red mandarin and Tangerine oranges and limes on an evergreen background. The nuts are shown by the Los Nietos and Rivera Walnut Growers' Association. The roof is covered with oranges and lemons and festooned with limes, a pomelo hanging from each loop. The whole is surmounted by an immense black eagle bearing in its talons a cluster of mandarin oranges. Below, a choice lot of fruit—Navels, Mediterranean Sweets, St. Michael's, sweet lemons, Eureka and Lishon lemons and pomelos—exhibited by the Orange Growers' Association of Rivera, is arranged in beds, divided by walks of wheat and corn.

An orange tree 15 months old from bud and seven feet high is shown by Dunham and Beckwith. W. F. English entered 10 boxes of seedlings. He has 17 acres of orange trees 12 years old, and has sold this season's crop for \$12,000. L. Bequet exhibits seven boxes of Navels and St. Michael's, fine-looking fruit. J. Root shows White Pacific figs, and G. D. Bunch 4 boxes of White Adriatic figs, also walnuts. A cluster of 26 large oranges on one stem is a marvel.

This season's product is estimated by Rivera as follows:

Walnuts.....	Carloads.
Oranges.....	50
Figs.....	175
Corn.....	6
Vegetables.....	75
	150

Downey has a table 20 feet long and 6 wide, with a bank against the wall. There is a large pile of Eureka lemons shown by E. L. Barnett, flanked by apples in good, sound condition. T. J. Kerns, the leading exhibitor, has Washington and Australian Navels, seedlings, Eureka and Bonnie Brae lemons, late budded St. Michael oranges and a jar of walnuts.

This brings us to the end of the walk under the gallery, and we next inspect Vernon's exhibit upon the stage. This is decidedly unique and occasions many smiles. A large packing-house is stuccoed with oranges, and within it sits a dwarf figure in the act of wrapping oranges. From the opening in the side of the house another man in miniature is taking out a box to be placed in the freight car which stands alongside. This is cleverly constructed of oranges. Near by, still another figure stands on a ladder, with sack at side, picking oranges from a tree. A loaded express-wagon is in waiting, drawn by a pair of grays and driven by a companion to the other figures. Still further illustrating the orange industry of this State, there is a nice piece of work arranged by E. L. Henck. A pretty cottage stands in the midst of shrubbery, with a lawn and graveled walks in front, a flower garden on the sides,

and in the rear a miniature orange orchard, true to life.

There is a bank of 30 boxes of fruit entered by Vernon people, whose names I was not able to obtain, with the exception of that of I. Inverarity.

Pomona has a table 48 feet long by 15 feet wide covered with noble fruit, in the style of last year, not competing with any architectural design. The center of the table is covered with lemons, and from their pale-yellow setting rise enormous letters, extending the whole length of the table, spelling the name "Pomons." Each letter is formed of a variety of orange, and the specimens of each variety are as perfect as it is possible to produce. A wall of oranges surrounds the table, with turrets in each corner. The principal exhibitors are James Becket, seedlings; Stoddard Jess, Malta Bloeds; O. Seaver, Navels; Mrs. I. Thnrher, Mediterranean Sweets; F. J. Smith, St. Michael's; Mr. Davenport, Eureka lemons. The wall back of the table is adorned with fan palm leaves and evergreens, surrounding a handsome crimson silk banner.

No blue ribbons are yet to be seen, but it was said that Pomona had been awarded the premium for best exhibit of citrus fruits from any locality—a big feather in her cap. The crop this season will be greatly in excess of that of any previous year. About 130,000 orange trees will be planted during 1891, and there are already more than 4000 acres of orange groves, largely the Navel variety. Pomona claims the largest orange orchard in the world; it contains about 400 acres, and is owned by Seth Richards.

North Pomona has a table of her own in the ante-room at right of main entrance. This room—20x45 feet in dimensions—was reserved for Orange county, and was quickly secured by other exhibitors when it was learned that it would not be occupied as originally intended. Mrs. J. L. Loomis, Mrs. I. L. Thnrher and Henry H. Wheeler show a choice lot of Navel, St. Michael, Malta Blood, Mediterranean Sweet and Nonpareil oranges. The latter is the same variety that is exhibited elsewhere as Valencia Late or Rivers' Late. The gentleman in charge of the table said that he had written the U. S. Pomologist at Washington, H. Van Dieman, with regard to the orange and had learned from him that its true name was Nonpareil.

Long Beach has a small but creditable exhibit in this room to gainsay the assertion that citrus fruits will not do well near the ocean. Joshua Smith raised good-sized, deep colored Navel oranges and Eureka lemons one mile from tidewater.

James C. Dunn has lemons growing three-fourths of a mile from the ocean, and J. R. Nevin has successfully produced the same 180 yards from tidewater.

Henry Eims, Pasadena, makes a splendid showing of Mediterranean Sweet oranges in the ante-room. John S. Calkins, Pomona, exhibits young trees, such as the olive, grevillea, peppermint, gum, paniclata, etc.

Verdugo has a small table covered with fruit in plates. J. C. Thomas shows enormous Navels, Malta Bloeds crossed with Navels, Eureka lemons, Japanese persimmons and extra large walnuts. S. I. Mayo has seedling oranges and Eureka lemons.

A large table is crowded with pots of cinerarias, azaleas and other plants in full bloom from the Raymond nurseries, Pasadena. It is a mass of gorgeous coloring and delights every one.

Returning to the main hall, we come to San Gabriel's exhibit on the right of the space between the galleries. This is perhaps 16x20 feet in dimensions. In the center of the table stands a beautiful model of the old Mission at San Gabriel, as it appears to-day wrought in tangerines chiefly. Across one corner of the table is the gateway of "Sunny Slope," paneled with lemons and oranges, and under the arch is an exhibit of L. J. Rose's famous wine.

Around the Mission design, oranges are neatly piled in a setting of lemons. The exhibitors are: Mrs. W. H. Winston, seedlings, St. Michael and Rivers' Late from buds imported from Thos. Rivers, England, Malta Blood and Joppa oranges and Eureka lemons; A. S. Chapman, Rivers' Late Navel (this cross was not seen elsewhere in the fair) and Malta oranges, Villa Franca lemons; J. Jacobow, Navels; J. R. Dobbins, Valencia Late, Malta, seedling and three large piles of big Washington Navels; Geo. S. Patton, prize seedlings; H. D. McDonald, W. Navels and seedlings; F. Q. Story, Premier, Malta, St. Michael, W. Navels, Tangerines and Satsuma oranges; J. A. Cooper, seedlings; J. De Barth Shorb, tall cone of seedlings. There were fair-sized seedlings from the old Mission orchard planted by the padres 100 years ago.

Glendora, Azusa and Covina—all in the Upper San Gabriel valley—combined forces and prepared an Egyptian pyramid and Cleopatra's needle about 25 feet high, beneath which is spread a quantity of very fine fruit. These towns are young, but they are situated in the "citrus belt," and are already producing oranges and lemons that will compare favorably with the best from better known localities. There are now about 3000 acres set to fruit in this section, and the area will be largely increased this year. C. T. Robedeau, M. Baldrige and S. A. Overholtzer of Covina exhibit Washington Navels that seem unsurpassable in size and beauty, large seedlings and Mediterranean Sweets. W. F. Powell and J. G. Madden of Azusa show Late Valentinas and W. Navels. Glendora is largely represented by

Powell and Spalding, J. J. West, M. H. La Fetra, John Bender, Mr. Shorey, Geo. D. Whitcomb and Mr. Thomas, with citrons, W. Navels, Mediterranean Sweets, Malta Bloeds, Paper Rind St. Michaels and limes; also by Henry Englehart, raisins; C. E. Needham, tomatoes; and A. B. Rogers, a Washington Navel tree nine feet tall, budded Oct. 20, 1889.

Pasadena occupies the center of the hall, and has erected a graceful column 44 feet high, towering nearly to the roof, and covered with oranges relieved with smilax. Fruit, flowers and vines are tastefully arranged around the shaft, and the whole is inclosed by a chain fence of limes. This design required 125 boxes of oranges. O. H. Richardson exhibits 23 varieties; the Queen, Chinese Mandarin, Satsuma, Malta Blood, Peerless, Old Vina, Rio, Magnum Bonum, Wolfskill's Favorite, Hart's Tardy, Small St. Michael, Workman, Acapulco, Polynesia, Homasassa, Nicaragua, Mediterranean Sweet, Portugal, wild orange of Florida, Lake Vineyard, Washington Navel and Australian Navel, also Eureka and Genoa lemons. The other exhibitors are Jas. Clark, A. O. Clark, Mr. Rosenbaum, Jas. Craig and H. H. Rose, who showed oranges and citrons; E. H. Dane, raisins; and Philbrook and Stetson, orange and lemon juice.

Duarte's oriental mosque is 27 feet high, and occupies, with its surrounding parterre, a floor space of 35 by 40 feet, in which 140 boxes of fruit are displayed. The design is copied accurately from a photograph of a Turkish caliph's tomb at Cairo, and is covered with choice specimens of citrus fruits. Its golden dome is a thing of beauty, and by many persons the design is considered the finest in the hall, conforming most closely to the call for artistic designs of citrus fruits. Duarte people certainly think so, and have entered a protest against the decision of the committee, who awarded the fourth premium to the mosque. They assert that the Redlands display is made up of drapery, rocks, etc., more than it is of citrus fruits, and that the San Gabriel Mission and Los Angeles County Courthouse models, being covered chiefly with tangerines, should not have been ranked ahead of Duarte's design. The exhibitors in various classes are Ernest Watson, manager of the exhibit, E. Myers, W. H. Young, J. A. Maddock, A. C. Thomson, Bliss Bros, Church & Arthur, T. B. Glenny, L. L. Bradbury, H. A. Buttolph and W. H. Lancaster.

Whittier is represented by a well-ourb, bucket and sweep of oranges fantastically covered with snow.

[This interesting description will be concluded in next week's RURAL.—EDS. PRESS.]

## FLORIST AND GARDENER.

## Annuals in California.

(Read by MRS. HELEN P. SMYTH before the California State Floral Society.)

As this paper is the result of "greatness thrust upon" me by the wonderful unanimity of sentiment that prevented those who knew more of the subject than I do from giving voice to their knowledge, I will undertake to co-estimate myself an attorney for annuals, though I frankly confess I no longer have them in my garden. Beginners always take to annuals, but after awhile experience causes them to grow indifferent, even in some cases to go so far as to call them weedy and short-lived things. So they are, many of them, while others again cannot be surpassed by any other class in delicacy of beauty, and none can be found that will give such liberal returns in gay display of color, as in the great variety of both character and color.

A great point, and this also shows a season for the beginner's preference for annuals, lies in the fact that everybody can grow them; they require neither glass, flower-pots, compost, sticks nor shades, and in climates where rain falls, not even watering. Of course these accessories add to the beauty and length of life of a plant, but for those who have no desire to go to much trouble or expense, there is a fertile field in the cultivation of annuals, as they yield abundant satisfaction for a minimum of labor. Then, another consideration is their cheapness; it is simply marvelous to see how far a dollar will go, and what an endless amount of pleasure will be found in the truly beautiful display.

In planting the seeds, the earlier the better in the months of February or March, for this reason—the longer time the plants grow and spread before flowering, the finer will be the production. One great secret in securing fine blooms is to encourage each separate plant to make as much growth as possible before it begins to flower. Late-sown seeds are hurried into blossom before a good-sized plant is formed, and are not therefore so satisfactory, if we care for excellence of production. There is no fear of cold weather affecting the seed sown early, for seeds of all kinds remain dormant and unhurt all winter until the genial sun calls them to life and action. The danger lies in this—that after responding to the sun's kiss by germinating a cold snap may follow, in which case it is "Love's Labor Lost." In San Francisco and later in Berkeley, I need to sow half of each package of seeds early, sometimes if the weather was mild as early as January, saving the other half to fall back on if misfortune came, but I very seldom have had recourse to the second planting.

My experience goes to show that if hardy an-



annuals are planted in somewhat poor soil in August, the seeds will germinate at once and be among plants before winter. These will bloom earlier and be stronger than those sown in spring. In my garden, self-sown *Coleopsis*, *Sweet Pea*, *Godetia*, *Nasturtium*, *Eschscholtzia*, *Dianthus*, *Larkspurs*, *Corn Flower*, *Nemophila*, etc., are found in the walks, are in fact established weeds, which fact led to their banishment. When an unusually fine plant appears, I sometimes transfer it to a border where it can have soil, and am amply rewarded by the vigorous strength of the plant and beauty of the flowers.

As to those varieties which have the longest continuance of bloom, my personal experience would lead me to conclude that in our climate annuals cease to exist almost altogether except in name. *Mignonette* lives placidly through the winter, and before the rains permit of much outdoor work, it becomes so rich in fragrance, so fresh and daintily green, that one loses the stern "Roman parent" feeling and allows it to be a biennial or perennial as it lists in defiance to all rules.

Again, the duration of bloom depends largely on the cultivation; for instance, according to Shirley Hibbard, one plant of *Virginia stock*, allowed to attain complete development, will cover more than a square foot of surface, lasting in blossom two months, while 20 in the same space will be spindling with flowers all over within three weeks at the utmost. Then by carefully removing all seedpods the moment the flowers wither, the blossoming season may be prolonged almost indefinitely. Sweet peas on the south side of the house, planted in February, grew to be 12 feet high and were in full bloom, filling the air with fragrance at Christmas, and lasted until it grew too troublesome to keep the seedpods cut off. So, to my mind, by bestowing care and attention, a plant may be kept in blossom the whole season, even the most diffident giving double the number that would be given if left to themselves.

Before considering by name some of those annuals whose length of blossoming time is a factor in their consideration, I would like to call attention to *Mimosa Padica*, more widely known as "Sensitive Plant." I raised a number from seed last year, and every one who saw them was tempted to experiment with the foliage, at times barely touching the tip end so as to watch the dispatch sent along, each opposite pair of leaflets closing one after another, till the whole seems withered; or perhaps the experiment consisted of suddenly lifting the pot, when every one of the compound leaves would not only close up, but the leafstalk would drop instantly as though broken off. If left undisturbed, it soon resumes its original appearance.

Also I would mention *Gypsophila*, so fairy-like, fine for bouquets, either green or dry. There is also a white perennial which I have never tried. There seem to be so many coming under the head of long continuance in bloom that I will mention only a few. *Calliopsis*, beautiful, rich-colored flowers, showy in beds and good for cutting; dwarf sorts good for edging beds. They begin to bloom early and continue many weeks. *Centaurea Cyanus* are hardy flowers on long stems and of desirable colors. The dark-blue is said to have been the favorite flower of the late Emperor William; profuse in bloom, lasting all season. *Caillardia*, splendid for beds, no annual, blooming more freely throughout the summer. Flowers showy and much admired.

Ten Weeks' Stock is one of the finest annuals in circulation, when well grown. The flowers are perfectly double, graceful in form, showy yet delicate. The plant comes into bloom in midsummer, and from that time blossoms continuously until after severe frosts. If neglected, will mostly produce single flowers or insignificant double ones. *Schizanthus* are beautiful flowers of odd shape and curiously marked, somewhat resembling a butterfly in form and marking; bloom freely and continuously during the season; fine for boxes or pots, winter or summer. There is a beautiful wild variety, pure white, which I found on the Berkeley hills and brought down into the garden, where it lived, flourished, and I am glad to see has produced seed.

*Salpiglossis* are wonderful in the rich pencillings of the flower, as also for the fine texture and beautiful coloring. They are easily grown from seeds and bloom during the entire season. Most of us will remember with pride those exhibited by one of our members at the spring exhibition last year—they were universally admired. *Portulacca* are dwarf plants, succulent in growth, bloom throughout the summer. I lately saw an account of a bed four feet square which had some days nearly 600 blossoms, most of them double. The rose-flowered varieties are very beautiful.

*Phlox Drummondii* is everywhere conceded to be of the finest varieties. The flowers are large and bright and produced in great clusters, so that a bed of phlox becomes a mass of gorgeous color. The plants grow more bushy and cover the bed better if pinched back while small. The profusion of bloom is remarkable, and there are 26 different shades of color; a new shape, totally unlike any other, is five-pointed, exquisitely fringed between points, frequently measuring  $1\frac{1}{2}$  inches from tip to tip. Phlox is in bloom the entire season and is a continual source of enjoyment. *Godetia*, flowers are large, delicate and very pretty. They like a shady place and are very popular in England. Asters are beautiful and gorgeous autumn-blooming annuals, and flowers are freely produced, but with me the season of

bloom would not warrant them a place in this list.

*Clarkias* grow and bloom well in moist soil; flowers showy of peculiar form, freely and continuously produced. *Browallia* is easily grown, blooms incessantly; its modest blue flowers always gain attention. If the amateur florist can have but half a dozen annuals, one of those should be Sweet Pea. These plants are easily grown, bloom throughout the summer, if flowers are cut freely, so no seeds are allowed to form. The flowers are of almost innumerable rich shades and variegations and their fragrance is delicious. The name of *Cosmos* needs only to be mentioned to bring to mind these magnificent plants, which are a mass of elegant foliage until they bloom in September. From then to November they are literally covered with beautiful flowers, resembling single Dahlias. These range in color through all shades of rose, purple, flesh and pure white.

Besides those already mentioned are those annuals so well known as to need only the names: *Nasturtium*, especially the Dwarf, which are largely used in England instead of *Geraniums* for bedding; double *Zinnias*, each flower lasting several weeks; *Poppies*, of which the Shirley variety deserves special mention, its new shades being superb, also the Peony-flowered being fine; the Sunflower, so dear to the catholic heart; *Marigolds*, *Balsams*, *Candy Tuft*, *Larkspur*, *Mourning Bride*, *Scarlet flax*, *Eschscholtzia*, *Nemophila*, with innumerable hosts of wild flowers which immediately present their claims at the sound of the last two names so dear to the California heart; but time and space forbid that I should enter the field where the annual is most truly found in the plant which comes up from the seed, grows, flourishes, blossoms and produces a single season.

### Rhododendrons.

[Read by MRS. HELEN A. CROSS before the California State Floral Society.]

These beautiful flowering shrubs, which include Azaleas in the large genus *Rhododendron*, belong to the natural order Ericaceæ, and the class Pentandria. The word *Rhododendron* is from the Greek word signifying "rose tree," and comprises trees, shrubs and rootlet climbing epiphytes, with entire alternate evergreen or rarely deciduous leaves, and showy flowers in terminal clusters, with funnel-formed, five-lobed corollas and usually ten declining stamens.

The *Rhododendron* is found in the mountains of the northern hemisphere and in Java and the neighboring islands. The greatest number of species occurs in the high mountain regions from Java and Borneo on the south, to the Sikkim Himalaya on the north. Several species are found in China and Japan, two in Kamchatka and one in Alaska. The Arctic species, *Lapponicum* of Lapland and Greenland, is also found in the White mountains. The only two other European species are the *R. ferrugineum* and *R. hirtum*, the "Alpen rose" of the Swiss Alps. The species peculiar to the United States are too numerous and widespread to mention at length in this article.

As may be readily inferred from the extremes of latitude in which this plant grows, there is a great diversity in the size which it attains. While the Arctic *R. Lapponicum* attains the height of only a few inches, the *R. Rolissonii* of Ceylon grows 30 feet high with a trunk more than a foot in diameter. With the exception of the *R. Chrysanthum* of Siberia, which furnishes a medicinal narcotic, this shrub is more ornamental than useful. Several species from Southern Asia are cultivated in this country, those best suited being *R. Arboreum*, *R. Dalhousii*, *R. Argentum* and *R. Jaminiflorum*. Of hardy species there is the *R. Duricum* of Siberia, with small, deciduous leaves and rose-colored flowers, blossoming very early in the spring.

But the finest and most hardy rhododendrons are hybrids, produced by crossing the *R. Catawbiense* with the Eastern *R. Ponticum*, and these are more generally planted than any other. The following hybrid varieties can be confidently recommended as hardy and beautiful garden plants, viz.: *R. Everestianum*, *R. Roseum*, *R. Album grandiflorum*, *R. Purpureum*, *R. Grandiflorum* and *R. Coriaceum*. *Rhododendrons* are propagated from seed and the plants resulting are then grafted. This should be done upon seedlings two years old. Sow the seed in October or November and transplant in February or March.

To attain the best success in the cultivation of these shrubs, they should be planted in well-drained peat mixed with sand, or leaf-mold and sand. So far as the writer knows, peat is not sold in California, but is brought here from Oregon and Idaho. The leaf-mold will be found an excellent substitute. Bone-meal is by some considered a desirable component of the soil.

*Rhododendrons* will grow well out of doors in deeply shaded places, as on the north side of the house where they may get the morning and evening sun, or under large trees. Florists keep them in lath houses. They blossom out of doors from April through July, according to variety, and their colors are purple, lavender, scarlet, crimson, pink and white. The Himalaya species are most beautiful and in greatest variety. Some species droop their foliage and appear as though they had at some time been borne down by a weight of snow.

The rhododendron, if it has proper care, is

very healthy and free from insect pests, and if it is seen to be attacked by them, one may know it has been neglected. The plant requires no pruning unless it is growing out of shape, and then the knife should be used as little as possible, and that after the blooming season is over.

The Azalea, from the Greek word signifying "parhed," is of the genus *Rhododendron* and comprises a hundred species or more, natives of North America, China and other countries. Like the rhododendron, it varies in height from a few inches to 20 feet, and its blossoms are of almost every conceivable shade. The Azalea *Indica*, a favorite of florists, is remarkable for its brilliant colors. The *A. Calendulacea* of the Southern States sometimes almost clothes the mountains with a robe of living flame color.

Azaleas in this State are propagated late in the fall and in early winter by cuttings placed in sand. They will root in six weeks with bottom heat. Without it they may require three months. The best plants are those grafted on one-year-old cuttings. If grown out of doors they must have shady places where they will get the rays of the morning sun only. Many florists here grow their Azaleas in lath-houses which afford a slight protection from both heat and cold. In this city (San Francisco) they may with safety remain out of doors all winter in ordinary seasons, but farther inland, where frosts at night are sharper, they should be transplanted to the greenhouse in October. If early blooming is desired, they may be forced by artificial heat in the conservatory.

The soil used is the same as for *Rhododendrons*. If one is in the possession of both early and late varieties, he can have a succession of bloom from November through May. The Azalea is usually a healthy plant, but if it has the misfortune to be neglected, other misfortunes will follow. There are the red spider, mealy bug and black scale. Too much dampness will result in mildew. The grower may avoid all of these troubles by a reasonable amount of attention to the needs of the plant.

Prune after the flowering season is well over. July is a good month, as this gives the plants time to make new wood and set their buds. In Europe they are often trained into various shapes, such as arches, circles, etc. The names of some of the species in common cultivation are *Francis de Vos*, a double white; *Baron de Viere* and *Apollo*, both large single white; *Kaiser Wilhelm*, very double rose red; *Emperor of Brazil*, double white; *Duke of Connaught*, dark red with two rows of petals and a large red calyx; and last and best of all as a beauty and a bloomer, *Prince Albert Edward*, rose pink with blotches of dark red on three petals.

In conclusion, let it be said that any amateur in California who follows the instruction given in this paper will be abundantly rewarded by the success which will attend his efforts at growing these charming shrubs. In purchasing them of a florist, he will find them a little more expensive, but he will also find them much healthier, longer-lived and more satisfactory than many of the other easily-grown greenhouse plants.

## AGRICULTURAL NOTES.

### CALIFORNIA.

#### Butte.

GOOD CROP PROSPECTS AROUND CHICO.—*Chronicle Record*: A drive through the country surrounding Chico reveals the fact that an unusually large acreage of grain has been sown, and also that it is in fine condition, having been well watered by the recent rains. In the orchards in many places the almond and peach trees are in full bloom. The buds on all fruit trees are swelling and everything points to an early fruit crop. This condition of affairs is very encouraging to orchardists and ranchers. To the former it means good prices, as early fruit is always in great demand, and to the latter a just reward for their labors.

#### Colusa.

FRUIT-RAISING IN FAIRVIEW DISTRICT.—*Maxwell Mercury*, March 14: This district, about four miles southwest of Maxwell, is beginning to make a record in fruit-raising. Already Geo. F. Scott, of the firm of E. F. Peart & Co. of Maxwell, has planted 25 acres in raisin grapes, which are looking fine, and about 75 acres more will be planted this spring by Assessor Durban, John Rice and others. This is only a beginning, for the farmers of that fertile section intend next year to plant a much larger area in trees and vines, for they will then have the benefit of the water from Central canal.

#### Fresno.

FOWLER FRUIT NOTES.—*Fresno Expositor*, March 11: R. W. Langrum and M. R. Harlan have a force of men at work planting a vineyard about two miles northeast of Fowler. They will have when finished about 120 acres planted to Muscat vines. Howard Harris will plant 20 acres to vines and trees soon.

SHEEP-RAISING.—*Fresno Californian*, March 7: Sheep-raising is a business no longer to be ignored. With mutton selling at eight cents per pound dressed in the whole carcass, and the price of wool steadily advancing, there is a bright future for our sheep-owners, especially for those who have good ranges not adapted to other purposes. There are millions of acres of good mountain range in California especially

adapted to the raising of sheep and goats, which can now be devoted to that industry with profit.

#### Inyo.

BUYING STEERS.—*Independence Independent*, March 13: L. J. Rose Jr. has been in the valley during the past week buying up steers. It is his intention to drive them to his ranch in Ventura and fatten them for market. It is reported that he is buying two and three year old steers for from nine to fifteen dollars per head. With a railroad to Mojave, every steer in the valley could be fattened here at home and shipped to market. Under the present conditions, they must be driven several hundred miles and put in condition for market. By this means, the producer loses his just profits, and the farmer loses the market for his hay.

#### Lassen.

LASSEN COUNTY CROP PROSPECTS.—*Susanville Advocate*, March 12: The outlook for crops was never better than at present. We have had an abundance of rain and snow; there has been no cold weather, and the ground has been in good shape for plowing nearly all winter. Indeed we may expect to have one of the most prosperous seasons ever had in Lassen county.

#### Los Angeles

THE VALUE OF IRRIGATION.—*Pasadena Star*, March 14: As an illustration of rapid development, attention is called to the Alessandro Irrigation district of 25,340 acres. Six months ago the land in that district could not be sold for \$10 an acre, and without irrigation actual settlers could not afford to take it as a gift. As soon as it was decided to district and irrigate the land, sales commenced, and up to date \$400 acres have been sold for \$660,000 in 10 and 20 acre tracts, mostly to actual settlers.

#### Marin.

FARMERS AND PRISON JUTE BAGS.—*San Francisco*, March 14: At a meeting of the Prison Directors at San Quentin to-day, a committee of San Joaquin county farmers appeared before the board and requested a reduction in the price of grain bags. They were informed that as the reduction in the tariff on jute does not take effect until next year, the price of bags could not be reduced until then. The committee complained of a scarcity of bags, and were told that the farmers themselves were to blame. The farmers are allowed to order 5000 bags, and frequently when they require only 1000 will order the full amount and dispose of the surplus at a slight profit to merchants, and then when the supply at the prison is exhausted, the merchant will sell the stock he has accumulated in this manner at an increased price.

#### Mono.

FARMING INDUSTRY IN MONO.—*Bridgeport Chronicle*, March 12: Hundreds of cattle were sold last year from the Big Meadows of Bridgeport, and the storm of this winter have insured them plenty of water for hay, of which there will be large crops. The Antelopers are expecting good crops of garden truck, for which they usually get good round prices; so it cannot be said that the farming industries of our county are not remunerative.

#### Napa.

NAPA AGRICULTURAL SOCIETY.—*Calistogan*, March 11: The annual meeting of the Napa County Agricultural Society was held at Napa Saturday afternoon last. Included with the business transacted was the reading of the secretary's report for the past 12 months and the election of officers for the ensuing year. Directors were elected as follows: John Even, John McCord, G. W. Hill, L. L. James, Chas. Scott, Nathan Coombs, F. W. Loeher, H. W. Orabb and L. L. James. President, L. L. James; vice-president, Fred W. Loeher; treasurer, L. L. James; secretary, A. H. Conkling.

#### Orange.

CREAMERY AT WINCHESTER.—*Winchester*, March 12: A meeting of farmers was held here to see what encouragement the Westminster people would give to Halstead & Co., of Pasadena, to put up a creamery here. The meeting was largely attended. R. T. Harris guaranteed to give them a two-acre lot close to town, and Mr. Case secured sufficient capital to insure the erection of buildings, in return for which Halstead & Co. agreed to put in a costly plant of latest improved machinery, calculated to extract butter from fresh milk, and further promised to sink an artesian well for their dairy. They will also bring from Pasadena at least 50 milch cows from their herd of 150 head, and they may bring all of them down here.

#### Santa Clara.

A LARGE ORCHARD.—*Gilroy Advocate*, March 14: Tree-planting is in progress on the ranch of Lion & Buckley near this city. The most extensive planting of this valley is contemplated by these enterprising gentlemen. Three hundred acres will be cultivated to fruit this year, to be followed by an equal or larger acreage next year.

FROG CATCHING COMPETITION.—*San Jose Herald*, March 14: The frog-catchers of Agnews station are finding that they are being ruined by Chinese cheap labor. The Chinamen are not afraid of getting their feet wet, and the other day three of them caught four dozen in as many hours. Frogs sell in San Francisco for \$2.50 a dozen.

CROP OUTLOOK IN SANTA CLARA COUNTY.—*San Jose Better Times*, March 13: We doubt if in the memory of the oldest inhabitant the country has ever presented so promising an



appearance as it does just now. The abundant rains, followed by spring-like warmth, light showers and cloudy skies, are bringing forward all kinds of vegetation at a most astonishing rate. The almond and apricot orchards are radiant with blossoms—soft and fleecy clouds fragrant and luminous with promise—and the verdure of the fields and the sloping hillsides present a picture of rare loveliness. Surely the prospect was never brighter for this valley of beautiful homes.

**Santa Cruz.**

**OLD VS. NEW POTATOES.**—Watsonville *Rustler*, March 12: The market is not very favorable to those who have stocks of old potatoes on hand, and new ones are making their appearance in the city market.

**San Diego.**

**POTATO INDUSTRY.**—Otay *Press*, March 12: While the work of planting and digging potatoes is now going on in the Otay valley, E. Owens, W. J. Wheeler and others have been busy putting in their crop. E. Danerl, up the valley, has been digging and hauling 1500 sacks to town.

**San Joaquin.**

**PROMISE OF THE LARGEST WHEAT YIELD FOR TEN YEARS.**—Stockton *Independent*, March 11: A tuft of wheat pulled from Hammond & Yardley's ranch, near Lockford, yesterday, indicates that the yield of that grain in that vicinity will be something phenomenal. The tuft contains 44 stalks, which all farmers agree is an extraordinary growth, ten being unusually large. The farmer in charge of the ranch says the whole crop of wheat has stood out unusually thick, several other tufts showing from 35 stalks to the number in that on exhibition. This unusual "stooling" is attributed largely to the recent cool weather which has arrested upward growth and caused the seed to send forth so many more shoots and roots. It is regarded as a promise of an unusually good yield, and Hammond & Yardley expect the biggest crop they have had for ten years.

**San Luis Obispo.**

**FRUIT NOTES FROM FOLSOM DISTRICT.**—San Miguel *Messenger*, March 13: A considerable number of orchards and small vineyards are being planted. Mr. Durham, who resides on the old Archer ranch in Pine canyon, has planted a nice family orchard. T. B. Gourley has added to his orchard and has planted two acres of grapes, consisting principally of raisin grapevines from Fresno county. C. W. Gourley has quite a large orchard of different kinds of fruit trees, mostly propagated by himself on his homestead in Taylor canyon. The writer believes this could be done by many others. There would be more than one advantage in so doing. Trees propagated at home would be sure to grow if carefully handled. Then a person would be certain of having the varieties he wished, which is not always true of trees obtained from agents of nurseries, as many have found to their cost. It is not encouraging to pay a high price for trees, plant and attend to them carefully for years, expecting to grow choice fruit, and then, when they begin to bear, have inferior fruits of perhaps a different variety from that intended to be borne. Mr. Pennan is planting several acres to fruit trees and vines on his homestead in Mason valley. Mr. Draffin is also enlarging his orchard.

**RESULT OF OVERCHARGING A SPRAY PUMP.**—S. L. O. *Tribune*, March 13: County Fruit Commissioner Maulsby of Santa Maria was in town Monday, and told of the curious experience of one of the Santa Barbara fruit-growers, who overcharged his spray pump until it finally exploded, nearly scaring him to death.

**SUMMER - FALLOWING EARLY.**—Slimmer, March 11: The recent rain has put the ground in splendid order for plowing, and some of our more thrifty farmers have taken Father Time by the forelock and are plowing their lands for early sowing next fall. They can see the benefit of early-sown grain in the advanced condition of grain sown before the rains set in last fall.

**San Mateo.**

**TREE-PLANTING AT PESCADERO.**—Redwood City *Times Gazette*, March 14: A large number of fruit trees are being planted at Pescadero, chiefly apples and pines, as experience shows that this neighborhood produces the finest apples and so far free from worms. As far as tested, pines do well, while a few localities produce excellent peaches and cherries, and we learn of some grapes being planted, though rather as an experiment.

**Sonoma.**

**OLIVE PLANTATIONS.**—Healdsburg *Enterprise*, March 14: Gny E. Grosse is making a success of olive culture, and his orchard is one of the "sights" of the magnificent country surrounding our delightful county seat. His neighbor, F. Warthorst, is now going into the olive business, too, and this season is planting 500 olive trees. Lay, Clark & Co., also of Santa Rosa, are doing even better, for they are setting out 2000 trees.

**GUARD AGAINST INFESTED FRUIT.**—Sonoma *Democrat*, March 14: Horticultural Commissioner Rogers says: I was advised by Alexander Crow, State Quarantine Officer, to inspect some trees imported by W. D. Sluk from Japan, as he had found Mytilus-pi gloverii scale on trees lately shipped from that country. Commissioner Gladden of Healdsburg came up with me. We inspected them and discovered no scale. I then called at a grocery store and purchased some lemons affected with the above scale, also another scale which I could not name. It is as dangerous to have fruit sold at

our stores infested as it is to have infested trees sent here. The red orange scale is shipped here from Lower California, and it is considered by the orange-growers to be the worst enemy they have to contend with now. Buying the orange and throwing the peeling away will cause the spread of the scale. The lemon peeling is generally used, consequently those that infest them are destroyed. It stands every citrus-fruit grower in hand to see that none is sold in the market which is infested.

**Sutter.**

**DISTRICT No. 70.**—Yuba City *Independent*, March 13: Supervisor L. Summy, who resides in District No. 70, says that things have not been altogether as bad in that district as represented. The water has at no time been so high against the levee as to require watching, or to be considered at all dangerous. The water inside the district was not seepage but rain-water. Owing to the past wet season, the low ground in the district was already moist to the surface, and the six or eight inches of rain which fell in a few hours remained upon the surface. As soon as the tule water receded sufficiently, the back levee was cut so as to allow this rain-water to escape. In this way the land was relieved to some extent, but there still remain about 1200 acres under water, and upon this land the wheat is dead. The land will be replowed and seeded to late crops this spring. Mr. Summy also said that during the coming summer the directors will build a mound at the lower end of the district upon which an engine and pump will be placed as a precaution against a repetition of present conditions.

**A LARGE FRUIT CROP PREDICTED.**—Marysville *Democrat*, March 13: J. P. Oustott, an extensive fruit-grower of Sutter county, says that during the past few days the average fruit trees have made a very perceptible development, and the numerous healthful looking buds indicate a bountiful crop of every variety except the Moorpark apricot, which for some reason does not appear as promising as usual.

**Tulare.**

**STOCK STEALING BECOMING TIRESOME.**—Porterville *Enterprise*: Our White River correspondent informs us that there has been a regular system of stock thieving carried on in his neighborhood for some time past, by a certain gang of depredators who hang around Porterville. He says that it is becoming such a common thing for the stockmen to lose a number of cattle that they are getting tired of the business, and unless it stops they propose to hunt up the thieves and treat them to a little hemp or something of that sort.

**PORTERVILLE CITRUS - FRUIT INDUSTRY.**—Porterville Cor. *Visalia Times*, March 12: The fact that citrus fruit can be grown here with profit has had much to do with the upbuilding of the town and maintaining property values. There are not less than 300 acres of land, within a radius of one mile of the town, devoted to orange culture. The oldest orange orchard in the immediate vicinity of Porterville is that planted out several years ago by the late A. R. Henry, and is about a mile east of the town. These trees have been in bearing for several years, and are to-day loaded with golden fruit, which can be seen glittering in the sun long before the orchard is reached. It was the fruit of this orchard that gave an impetus to orange-growing in this vicinity. In most all of these orange orchards a few lemon trees have been planted. There are a number of bearing lemon trees in the vicinity, and the fruit is generally of an extra size, fine flavor and high color. The trees are proving steady bearers, and those who have gathered and sold their fruit report a profit of from \$20 to \$23 per tree.

**CROP OUTLOOK.**—Visalia *Times*, March 12: Here and there fields of grain are heard of that have grown to a height of two and three feet, but this is an exceptional growth. The majority of the grain is not over six inches high, and there is much of it just coming out of the ground. A continued spell of warm weather, without devastating north winds, would, however, shoot the grain up enough to shade the ground. Several showers will be needed in April to insure a good crop, notwithstanding the prospects are now very flattering.

**ARIZONA.**

**CONDITION OF STOCK IN ARIZONA.**—St. John's *Herald*: We believe grass was more abundant in Apache county last summer than it had been for many years. Cattle were fat in the fall, but their condition at present is far from satisfactory; they look hard, and a long dry spring, such as we have seen, would mean a heavy loss. Even with the best prospects, many cows will be lost in the river, however well the hog-riders do their duty. Some stockmen say the late rains washed the strength out of the grass. No doubt this, to some extent, accounts for the poor condition of the cattle at present, but we think there is a much more serious and permanent reason for the rapid deterioration in the condition of stock during the last three months. In our opinion, the range is overstocked. Cattle have certainly doubled in number during the last six years, while sheep have probably increased as rapidly. There has been no increase in grazing capabilities of the range; in fact, it must be worse on an average. Ten or twelve years ago it would have been simple to name the remedy. There was plenty of new country then, and a stockman on finding his range crowded could move to a new range. Where can he go now?

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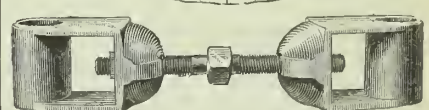
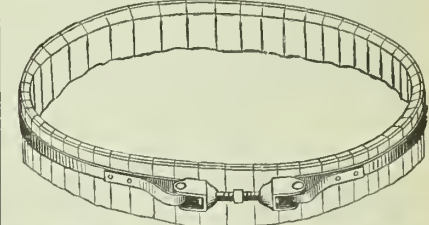
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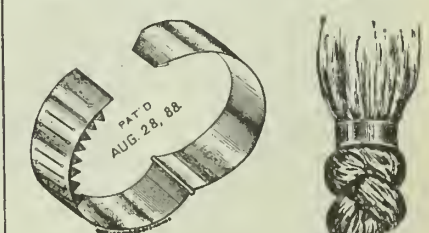
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# THE PUBLIC LANDS.

## The New Land Law.

### Text of an Important Act.

Be it enacted, etc., That an Act entitled "An Act to amend an Act entitled 'An Act to encourage the growth of timber on the Western prairies,'" approved June 14, 1878, and all laws supplementary thereto or amendatory thereof, be, and the same are, hereby repealed: *Provided*, That this repeal shall not affect any valid rights heretofore accrued or accruing under said laws, but all bona-fide claims lawfully initiated before the passage of this Act may be perfected upon due compliance with law, in the same manner, upon the same terms and conditions, and subject to the same limitations, forfeitures and contests as if this Act had not been passed: *And provided further*, That the following words of the last clause of Section 2 of said Act, namely, "That not less than twenty-seven hundred trees were planted on each acre," are hereby repealed: *And provided further*, That, in computing the period of cultivation, the time shall run from the date of the entry if the necessary acts of cultivation were performed within the proper time: *And provided further*, That the preparation of the land and the planting of trees shall be construed as acts of cultivation, and the time authorized to be so employed and actually employed shall be computed as a part of the eight years of cultivation required by statute: *Provided*, That any person who has made entry of any public lands of the United States under the timber culture laws, and who has for a period of four years in good faith complied with the provisions of said laws and who is an actual bona-fide resident of the State or Territory in which said land is located, shall be entitled to make final proof thereto, and acquire title to the same, by the payment of \$1.25 per acre for such tract, under such rules and regulations as shall be prescribed by the Secretary of the Interior, and registers and receivers shall be allowed the same fees and compensation for final proofs in timber-culture entries as is now allowed by law in homestead entries: *And provided further*, That no land acquired under the provisions of this Act shall in any event become liable to the satisfaction of any debt or debts contracted prior to the issuing of the final certificate thereof.

### DESERT LANDS.

SEC. 2. That an Act to provide for the sale of desert lands in certain States and Territories, approved March 3, 1877, is hereby amended by adding thereto the following sections:

"SEC. 4. That at the time of filing the declaration hereinbefore required the party shall also file a map of said land, which shall exhibit a plan of showing the mode of contemplated irrigation, and which plan shall be sufficient to thoroughly irrigate and reclaim said land and prepare it to raise ordinary agricultural crops, and shall also show the source of the water to be used for irrigation and reclamation. Persons entering or proposing to enter separate sections, or fractional parts of sections, of desert lands may associate together in the construction of canals and ditches for irrigating and reclaiming all of said tracts, and may file a joint map or maps showing their plan of internal improvements.

"SEC. 5. That no land shall be patented to any person under this Act unless he or his assignors shall have expended in the necessary irrigation, reclamation and cultivation thereof, by means of main canals and branch ditches, and in permanent improvements upon the land, and in the purchase of water rights for the irrigation of the same, at least \$3 per acre of whole tract reclaimed and patented in the manner following: Within one year after making entry for such tract of desert land as aforesaid, the party so entering shall expend not less than \$1 per acre for the purposes aforesaid; and he shall in like manner expend the sum of \$1 per acre during the second and also during the third year thereafter, until the sum of \$3 per acre is so expended. Said party shall file during each year with the Register proof, by the affidavits of two or more credible witnesses, that the full sum of \$1 per acre has been expended in such necessary improvements during such year, and the manner in which expended, and at the expiration of the third year a map or plan showing the character and extent of such improvements. If any party who has made such application shall fail during any year to file the testimony aforesaid, the lands shall revert to the United States and the 25 cents advanced payment shall be forfeited to the United States and the entry shall be canceled. Nothing herein contained shall prevent a claimant from making his final entry and receiving his patent at an earlier date than hereinbefore prescribed, provided that he then makes the required proof of reclamation to the aggregate extent of \$3 per acre: *Provided*, That proof be further required of the cultivation of one-eighth of the land.

"SEC. 6. That this Act shall not affect any valid rights heretofore accrued under said Act of March 3, 1877, but all bona-fide claims heretofore lawfully initiated may be perfected, upon due compliance with the provisions of said Act, in the same manner, upon the same terms and conditions, and subject to the same limitations, forfeitures and contests as if this Act had not been passed; or said claims, at the option of the claimant, may be perfected and patented under the provisions of said Act, as amended by this Act, so far as applicable; and all Acts and parts of Acts in conflict with this Act are hereby repealed.

"SEC. 7. That any time after filing the declaration, and within the period of four years thereafter, upon making satisfactory proof to the register and the receiver of the reclamation and

cultivation of said land to the extent and cost and in the manner aforesaid, and substantially in accordance with the plans herein provided for, and that he or she is a citizen of the United States, and upon payment to the receiver of the additional sum of \$1 per acre for said land, a patent shall issue therefor to the applicant or his assigns; but no person or association of persons shall hold by assignment or otherwise, prior to the issue of patent, more than 320 acres of such arid or desert lands, but this section shall not apply to entries made or initiated prior to the approval of this Act: *Provided, however*, That additional proofs may be required at any time within the period prescribed by law, and that the claims or entries made under this or any preceding Act shall be subject to contest, as provided by the law relating to homestead cases, for illegal inception, abandonment or failure to comply with the requirements of law, and upon satisfactory proof thereof shall be canceled and the lands and moneys paid therefor shall be forfeited to the United States.

"SEC. 8. That the provisions of the Act to which this is an amendment, and the amendments thereto, shall apply to and be in force in the State of Colorado, as well as the States named in the original Act; and no person shall be entitled to make entry of desert land except he be a resident citizen of the State or Territory in which the land sought to be entered is located."

### PRE-EMPTION OF PUBLIC LANDS.

SEC. 3. That Section 2288 of the Revised Statutes be amended so as to read as follows:

"SEC. 2288. Any bona-fide settler under the pre-emption, homestead, or other settlement law shall have the right to transfer, by warranty against his own acts, any portion of his claim for church, cemetery, or school purposes, or for the right of way of railroads, canals, reservoirs, or ditches for irrigation or drainage across it; and the transfer for such public purposes shall in no way vitiate the right to complete and perfect the title of his claim."

SEC. 4. That Chapter 4 of Title XXXII, excepting Sections 2275, 2276, 2286 of the Revised Statutes of the United States, and all other laws allowing pre-emption of the public lands of the United States, are hereby repealed, but all bona-fide claims lawfully initiated before the passage of this Act, under any of said provisions of law so repealed, may be perfected upon due compliance with law in the same manner, upon the same terms and conditions, and subject to the same limitations, forfeitures and contests as if this Act had not been passed.

### REVISED STATUTES AMENDED.

SEC. 5. That Sections 2289 and 2290, in said chapter numbered 5 of the Revised Statutes, be and the same are hereby amended so that they shall read as follows:

"SEC. 2289. Every person who is the head of a family, or who has arrived at the age of twenty-one years, and is a citizen of the United States, or who has filed his declaration of intention to become such, as required by the naturalization laws, shall be entitled to enter one-quarter section, or a less quantity of unappropriated public lands, to be located in a body in conformity to the legal subdivisions of the public lands; but no person who is the proprietor of more than 160 acres of land in any State or Territory shall acquire any right under the homestead law. And every person owning and residing on land may, under the provisions of this section, enter other land lying contiguous to his land, which shall not, with the land so already owned and occupied, exceed in the aggregate 160 acres.

"SEC. 2290. That any person applying to enter land under the preceding section shall first make and subscribe before the proper officer and file in the proper land office an affidavit that he or she is the head of a family, or is over twenty-one years of age, and that such application is honestly and in good faith made for the purpose of actual settlement and cultivation, and not for the benefit of any other person, persons, or corporations, and that he or she will faithfully and honestly endeavor to comply with all the requirements of law as to settlement, residence and cultivation necessary to acquire title to the land applied for; that he or she is not acting as agent of any person, corporation, or syndicate in making such entry, nor in collusion with any person, corporation or syndicate, to give them the benefit of the land entered, or any part thereof, or the timber thereon; that he or she does not apply to enter the same for the purpose of speculation, but in good faith to obtain a home for himself or herself, and that he or she has not directly or indirectly made, and will not make, any agreement or contract in any way or manner, with any person or persons, corporation or syndicate whatsoever, by which the title which he or she might acquire from the Government of the United States should inure, in whole or in part, to the benefit of any person, except himself or herself; and upon filing such affidavit with the register or receiver on payment of \$5 when the entry is not more than 80 acres, and on payment of \$10 when the entry is for more than 80 acres, he or she shall thereupon be permitted to enter the amount of land specified."

SEC. 6. That Section 2301 of the Revised Statutes be amended so as to read as follows:

"SEC. 2301. Nothing in this chapter shall be so construed as to prevent any person who shall hereafter avail himself of the benefits of Section 2289 from paying the minimum price for the quantity of land so entered at any time after the expiration of fourteen calendar months from the date of such entry, and obtaining a patent therefor, upon making proof of settlement and of residence and cultivation for such period of fourteen months; and the provision of this section shall apply to lands on the ceded portion of the Sioux reservation, by Act approved March 2, 1889, in South Dakota, but shall not relieve said settlers from any payments now required by law."

### CLERICAL ERRORS.

SEC. 7. That whenever it shall appear to the Commissioner of the General Land Office that a clerical error has been committed in the entry of any of the public lands, such entry may be suspended upon proper notification to the claimant, through the local land office, until the error has been corrected; and all entries made under the pre-emption, homestead, desert-land or timber-culture laws, in which final proof and payment may have been made and certificates issued, and to which there are no adverse claims originating prior to final entry, and which have been sold or incumbered prior to the 1st day of March, 1888, and after final entry, to bona-fide purchasers or incumbrancers, for a valuable consideration, shall, unless upon an investigation by a Government agent, fraud on the part of the purchaser has been found, be confirmed and patented upon presentation of satisfactory proof to the Land Department of such sale or incumbrance: *Provided*, That after the lapse of two years from the date of the issuance of the receiver's receipt upon the final entry of any tract of land under the homestead, timber-culture, desert-land or pre-emption laws, or under this Act, and when there shall be no pending contest or protest against the validity of such entry, the entryman shall be entitled to a patent conveying the land by him entered, and the same shall be issued to him; but this proviso shall not be construed to require the delay of two years from the date of said entry before the issuing of a patent therefor.

### SUITS FOR ANNULLMENT.

SEC. 8. That suits by the United States to vacate and annul any patent heretofore issued shall only be brought within five years from the passage of this Act, and suits to vacate and annul patents hereafter issued shall only be brought within six years after the date of the issuance of such patents. And in the States of Colorado, Montana, Idaho, North Dakota and South Dakota, Wyoming and in the district of Alaska, and the gold and silver regions of Nevada, and the Territory of Utah, in any criminal prosecution or civil action by the United States for a trespass on such public timber lands or to recover timber or lumber cut thereon, it shall be a defense if the defendant shall show that the said timber was so cut or removed from the timber lands for use in such State or Territory by a resident thereof for agricultural, mining, manufacturing or domestic purposes, and has not been transported out of the same; but nothing herein contained shall apply to operate to enlarge the right of any railway company to enter timber on the public domain: *Provided*, That the Secretary of the Interior may make suitable rules and regulations to carry out the provisions of this section.

SEC. 9. That hereafter no public lands of the United States, except abandoned military or other reservations, isolated and disconnected fractional tracts authorized to be sold by Section 2455 of the Revised Statutes, and mineral and other lands the sale of which at public auction has been authorized by Acts of Congress of a special nature having local application, shall be sold at public sale.

SEC. 10. That nothing in this Act shall change, repeal, or modify any agreements or treaties made with any Indian tribes for the disposal of their lands, or of land ceded to the United States to be disposed of for the benefit of such tribes, and the proceeds thereof to be placed in the Treasury of the United States; and the disposition of such lands shall continue in accordance with the provisions of such treaties or agreements, except as provided in Section 5 of this Act.

### ALASKA LANDS.

SEC. 11. That until otherwise ordered by Congress, lands in Alaska may be entered for townsite purposes, for the several use and benefit of the occupants of such townsites, by such trustee or trustees as may be named by the Secretary of the Interior for that purpose, such entries to be made under the provisions of Section 2387 of the Revised Statutes as near as may be; and when such entries shall have been made the Secretary of the Interior shall provide by regulation for the proper execution of the trust in favor of the inhabitants of the townsite, including the survey of the lands into lots, according to the spirit and intent of said Section 2387 of the Revised Statutes, whereby the same results would be reached as though the entry had been made by a County Judge and the disposal of the lots into such townsite and the proceeds of the sale thereof had been prescribed by the legislative authority of a State or Territory: *Provided*, That no more than 640 acres shall be embraced in one townsite entry.

SEC. 12. That any citizen of the United States twenty-one years of age, and any association of such citizens, and any corporation incorporated under the laws of the United States or of any State or Territory of the United States, now authorized by law to hold lands in the Territories, now or hereafter in possession of and occupying public lands in Alaska for the purpose of trade or manufactures, may purchase not exceeding 160 acres, to be taken as near as practicable in a square form, of such land at \$2.50 per acre: *Provided*, That in case more than one person, association or corporation shall claim the same tract of land, the person, association or corporation having the prior claim by reason of possession and continued occupation shall be entitled to purchase the same; but the entry of no person, association or corporation shall include improvements made by or in possession of another prior to the passage of this Act.

SEC. 13. That it shall be the duty of any person, association or corporation entitled to purchase land under this Act to make an application to the United States Marshal, *ex-officio* Surveyor-General of Alaska, for an estimate of the cost of making a survey of the lands occu-

pied by such person, association or corporation, and the cost of the clerical work necessary to be done in the office of the said United States Marshal, *ex-officio* Surveyor-General; and on the receipt of such estimate from the United States Marshal, *ex-officio* Surveyor-General, the said person, association or corporation shall deposit the amount in a United States depository, as he is required by Section numbered 2401, Revised Statutes, relating to deposits for surveys.

That on the receipt by the United States Marshal, *ex-officio* Surveyor-General, of the said certificates of deposit, he shall employ a competent person to make such survey, under such rules and regulations as may be adopted by the Secretary of the Interior, who shall make his return of his field notes and maps to the office of the said United States Marshal, *ex-officio* Surveyor-General; and the said United States Marshal, *ex-officio* Surveyor-General, shall cause the said field notes and plats of such survey to be examined, and, if correct, approve the same, and shall transmit certified copies of such maps and plats to the office of the Commissioner of the General Land Office.

That when the said field notes and plats of said survey shall have been approved by the said Commissioner of the General Land Office, he shall notify such person, association, or corporation, who shall then, within six months after such notice, pay to the United States Marshal, *ex-officio* Surveyor-General, for such land, and patent shall issue for the same.

SEC. 14. That none of the provisions of the last two preceding sections of this Act shall be so construed as to warrant the sale of any lands belonging to the United States which shall contain coal or the precious metals, or any townsite, or which shall be occupied by the United States for public purposes, or which shall be reserved for such purposes, or to which the natives of Alaska have prior rights by virtue of actual occupation, or which shall be selected by the United States Commissioner of Fish and Fisheries on the islands of Kodiak and Afognak for the purpose of establishing fish-culture stations. And all tracts of land not exceeding 640 acres in any one tract now occupied by missionary stations in the said district of Alaska are hereby excepted from the operation of the last three preceding sections of this Act. No portion of the islands of the Pribilof group or the seal islands of Alaska shall be subject to sale under this Act; and there shall be reserved in all patents issued under the provisions of the last two preceding sections, the right of the United States to regulate the taking of salmon and to do all things necessary to protect and prevent the destruction of salmon in all the waters of the lands granted frequented by salmon.

SEC. 15. That until otherwise provided by law, the body of lands known as Annette islands, situated in Alexander Archipelago in South-eastern Alaska, on the north side of Dixon's entrance, be, and the same is hereby, set apart as a reservation for the use of the Metlakahla Indians, and those people known as Metlakahla, who have recently emigrated from British Columbia to Alaska, and such other Alaskan natives as may join them, to be held and used by them in common, under such rules and regulations and subject to such restrictions as may be prescribed from time to time by the Secretary of the Interior.

### MINERAL LANDS.

SEC. 16. That townsite entries may be made by incorporated towns and cities on the mineral lands of the United States, but no title shall be acquired by any such towns or cities to any vein of gold, silver, cinnabar, copper or lead, or to any valid mining claim or possession held under existing law. When mineral veins are possessed within the limits of an incorporated town or city, and such possession is recognized by local authority or by the laws of the United States, the title of town lots shall be subject to such recognized possession and the necessary use thereof, and when entry has been made or patent issued for such townsites to such incorporated town or city, the possessor of such mineral vein may enter and receive patent for such mineral vein and the surface ground appertaining thereto: *Provided*, That no entry shall be made by such mineral-vein claimant for surface ground where the owner or occupier of the surface ground shall have had possession of the same before the inception of the title of the mineral-vein applicant.

### RESERVOIR SITES.

SEC. 17. That reservoir sites located or selected and to be located and selected under the provisions of "An Act making appropriations for sundry civil expenses of the Government for the fiscal year ending June 30, 1889, and for other purposes," and amendments thereto, shall be restricted to and shall contain only so much land as is actually necessary for the construction and maintenance of reservoirs; excluding so far as practicable lands occupied by actual settlers at the date of the location of said reservoirs, and that the provision of "An Act making appropriations for sundry civil expenses of the Government for the fiscal year ending June 30, 1891, and for other purposes," which reads as follows, namely: "No person who shall, after the passage of this Act, enter upon any of the public lands with a view to occupation, entry or settlement under any of the land laws, shall be permitted to acquire title to more than 320 acres in the aggregate under all said laws," shall be construed to include in the maximum amount of lands the title to which is permitted to be acquired by one person only agricultural lands, and not to include lands entered or sought to be entered under mineral land laws.

SEC. 18. That the right of way through the public lands and reservations of the United States is hereby granted to any canal or ditch company formed for the purpose of irrigation and duly organized under the laws of any State or Territory which shall have filed or may



hereafter file, with the Secretary of the Interior a copy of its articles of incorporation, and due proofs of its organization under the same, to the extent of the ground occupied by the water of the reservoir, and of the canal and its laterals, and fifty feet on each side of the marginal limits thereof; also the right to take from the public lands adjacent to the line of the canal or ditch, material, earth and stone necessary for the construction of such canal or ditch: *Provided*, That no such right of way shall be so located as to interfere with the proper occupation by the Government of any such reservation; and all maps of location shall be subject to the approval of the department of the Government having jurisdiction of such reservation, and the privilege herein granted shall not be construed to interfere with the control of water for irrigation and other purposes under authority of the respective States or Territories

SEC. 19. That any canal or ditch company desiring to secure the benefits of this Act shall, within twelve months after the location of ten miles of its canal, if the same be upon surveyed lands, and if upon unsurveyed lands, within twelve months after the survey thereof by the United States, file with the Register of the Land Office for the district where such land is located a map of its canal or ditch or reservoir; and upon the approval thereof by the Secretary of the Interior the same shall be noted upon the plats in said office, and thereafter all such lands over which such rights of way shall pass shall be disposed of subject to such right of way. Whenever any person or corporation, in the construction of any canal, ditch or reservoir, injures or damages the possession of any settler on the public domain, the party committing such injury or damage shall be liable to the party injured for such injury or damage.

SEC. 20. That the provisions of this Act shall apply to all canals, ditches or reservoirs heretofore or hereafter constructed, whether constructed by corporations, individuals or associations of individuals, on the filing of the certificates and maps herein provided for. If such ditch, canal or reservoir has been or shall be constructed by an individual or association of individuals, it shall be sufficient for such individual or association of individuals to file with the Secretary of the Interior, and with the Register of the Land Office where such land is located, a map of the line of such canal, ditch or reservoir, as in case of a corporation, with the name of the individual owner or owners thereof, together with the articles of association, if any there be. Plats heretofore filed shall have the benefits of this Act from the date of their filing, as though filed under it: *Provided*, That if any section of said canal or ditch shall not be completed within five years after the location of said section, the rights herein granted shall be forfeited as to any uncompleted section of said canal, ditch or reservoir to the extent that the same is not completed at the date of the forfeiture.

SEC. 21. That nothing in this Act shall authorize such canal or ditch company to occupy such right of way except for the purpose of said canal or ditch, and then only so far as may be necessary for the construction, maintenance and care of said canal or ditch.

SEC. 22. That the section of land reserved for the benefit of the Dakota Central Railroad Company on the west bank of the Missouri river, at the mouth of Bad river, as provided by Section 16 of "An Act to divide a portion of the reservation of the Sioux nation of Indians in Dakota into separate reservations, and to secure the relinquishment of the Indian title to the remainder, and for other purposes," approved March 2, 1889, shall be subject to entry under the townsite law only.

SEC. 23. That in all cases where second entries of land on the Osage Indian Trust and diminished reserve lands in Kansas, to which at the time there were no adverse claims, have been made, and the law complied with as to residence and improvement, said entries be, and the same are hereby confirmed, and in all cases where persons were actual settlers and residing upon their claims upon said Osage Indian trust and diminished reserve lands in the State of Kansas on the 9th day of May, 1872, and who have made subsequent preemption entries either upon public or upon said Osage Indian trust and diminished reserve lands, upon which there were no legal prior adverse claims at the time, and the law complied with as to settlement, said subsequent entries be and the same are hereby confirmed.

SEC. 24. That the President of the United States may from time to time set apart and reserve, in any State or Territory having public land hearing forests, any part of the public lands wholly or in part covered with timber or undergrowth, whether of commercial value or not, as public reservations; and the President shall, by public proclamation, declare the establishment of such reservations and the limits thereof.

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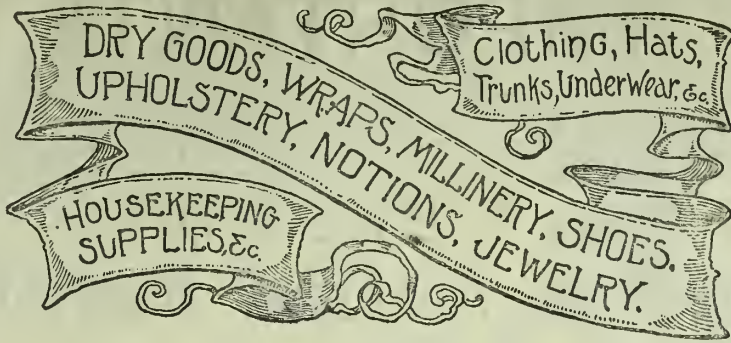
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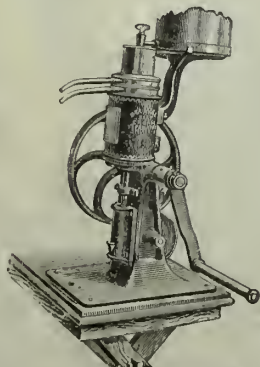
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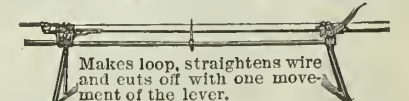
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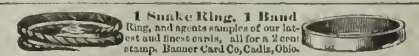
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## ENTOMOLOGICAL

## The Boll Worm of Cotton

The Entomologist of the U. S. Department of Agriculture, Dr. Riley, has just submitted to Secretary Rusk for publication a progress report on the investigation of the boll worm of cotton, an investigation provided for under the Act making appropriation for the Department of Agriculture for the current fiscal year. Although only a progress report, the writer, Mr. F. W. Malley, who has had charge of the details of the investigation, under the direction of the Entomologist, and who has been constantly in the field since last July, presents some facts of great importance to planters. He points out in the first place that the damage inflicted on cotton by this insect is far less than has been generally supposed. Careful investigation, showing the damaged bolls in the fields observed to amount to nearly 23 per cent, indicate that less than a third of this damage was due to the boll worm. It is nevertheless generally agreed that the damage was fully up to the average, some even thinking that it was above the normal, while none estimated it as lower than usual. The conclusion is, evidently, that many planters fail to distinguish the boll worm ravages from those of other insects, from physiological phenomena of the cotton plant, and from some of the fungoid diseases. In order to aid the planter in this matter, the report offers some valuable observations upon insect ravages easily confounded with those of the boll worm. A considerable portion of the report is directed to a consideration of the remedies, and to presentation of the results of experiments made during the past season. This would indicate that, on the whole, of the remedies so far employed, that of using corn as a trap-crop seems to be the most satisfactory. In reference to a supposed protection not uncommonly employed, namely, the use of lights to attract the moths in their flight through the field, the somewhat slight favorable results seem to be far more than counterbalanced by the large destruction of parasitical insects. A chapter is devoted to insect diseases affecting the boll worm, but with these, as well indeed as with most of the field work, the very late date at which the appropriation for this investigation became available last year, it has been impossible to do much more than to provide effectual means for continuing the work under the most favorable conditions the coming season. In this respect the report furnishes ample testimony as to the importance of early action on the part of Congress with reference to appropriations for agriculture. It can be readily understood that for work necessary to be done in the field, appropriations not available as was that of last year until the middle of July, are of little avail for immediate use, while even an appropriation made in the spring is liable to be so late as to make adequate preparations for necessary field work impossible in time for the opening of the season.

The report in question will be published as Bulletin No. 24 of the Division of Entomology, U. S. Department of Agriculture, and those who are interested in the subject should immediately address their applications to the Department.

[Additional interest pertains to this insect because it works here so freely upon corn and is found in the ears of corn grown for table use.—EDS.-PRESS.]

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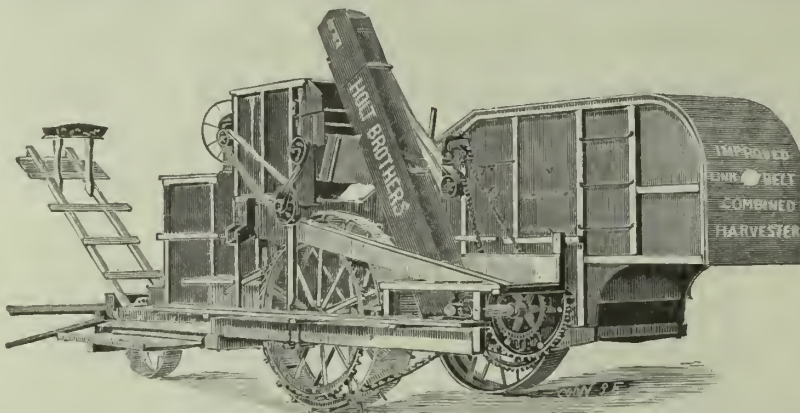
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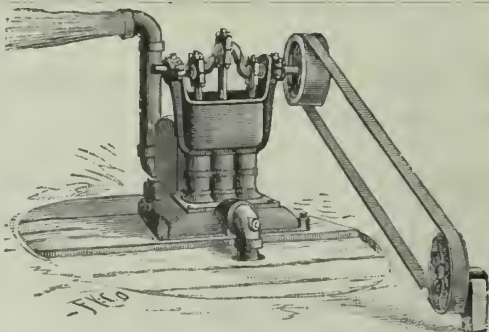
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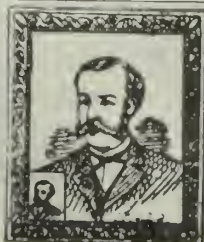
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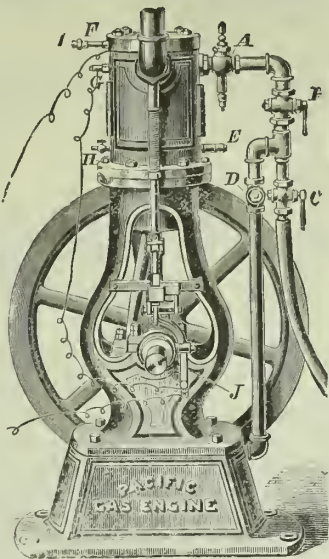
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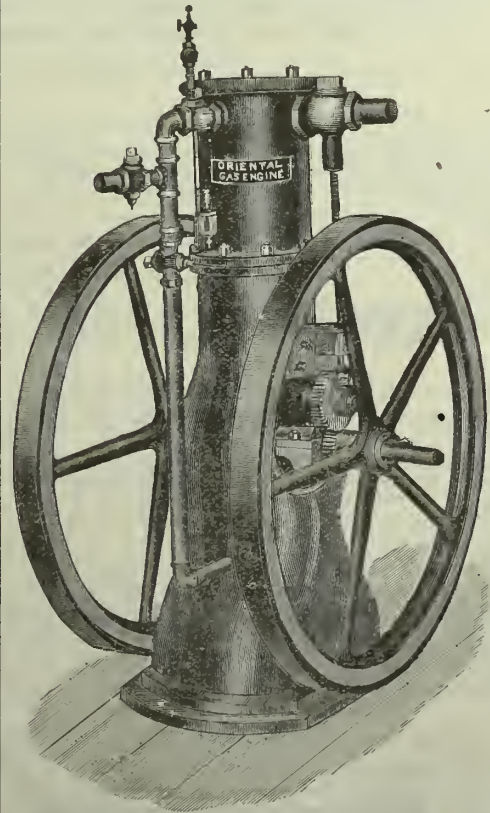
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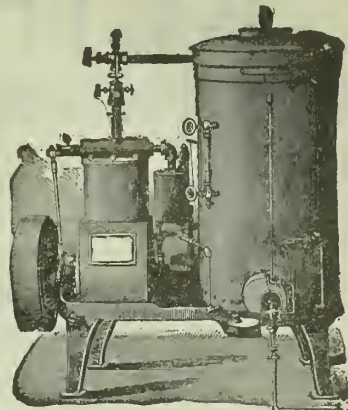
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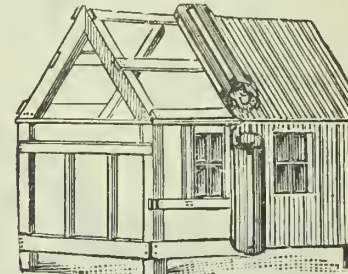
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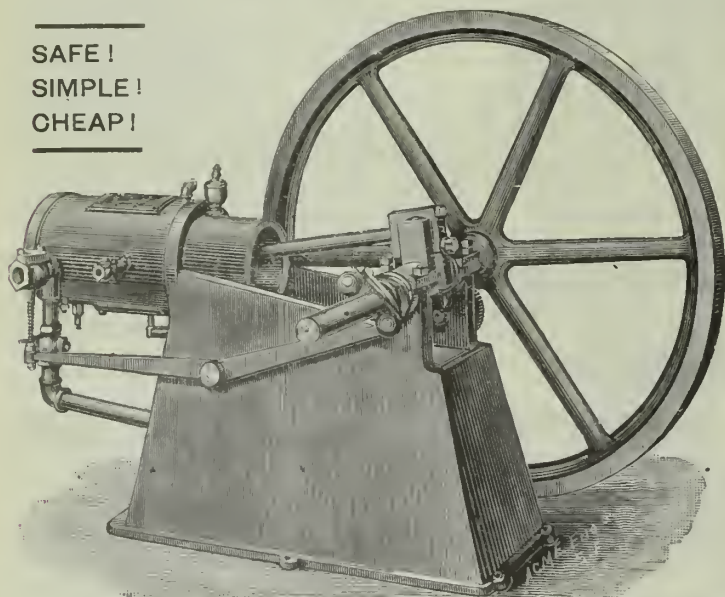
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SAN FRANCISCO, Feb. 25th, 1890.

REGAN VAPOR ENGINE Co.—Gentlemen: The 4 H. P. Vapor Engine I bought of you last May has been in constant use ever since, and has given me entire satisfaction. I have found the engine to be all that you claimed for it, and more too. You can use my name for reference if you so desire. I am, yours truly,  
H. TALBOT.

We Carry Thos. Kane & Co's Famous Racine Launches, fitted with our New Compound Engines.

Send for Circular.

REGAN VAPOR ENGINE CO.,

221-223 First Street, San Francisco, Cal.

## Cheaper Than Windmills for Farmers!

Our Perfected "Safety" Engines Cost to Run only 1-8 Gallon of Gasoline per Horsepower per Hour.

No Boiler, Fire, Smoke, Steam, Ashes or Heat. No Engineer, No License, No Danger. Single and Double Acting. 1/2-H.P. to 20-H.P.

SAN BERNARDINO, CAL., January 10, 1891.

GENTLEMEN—The 2-H. P. Engine received and set up yesterday. We attached it to part of the machinery in my shop, and it ran my Drill Press, a small Lathe, a large 24 inch by 14-foot Lathe, and a set of Emery Wheels, all of which it handled easily, to our great surprise.

Yours very respectfully,

J. B. HENDERSON.

GENTLEMEN—I am satisfied, after running for over a month my Bean Cleaner, etc., with the 4-H. P. Engine you sent me, that it is much the best Gas Engine I have seen. The electrodes are certainly superior to all others; also your safety rotary slide-valve, which is the personification of simplicity, positiveness and durability; I am satisfied it will develop much more power than we have need for. I also want a 1/2 or 1-H. P. for my wife and daughters to use about the house; we have a rotary clothes washer, can also do the churning, etc. I do not know of any better recommendation than to order a second engine.

Respectfully yours,

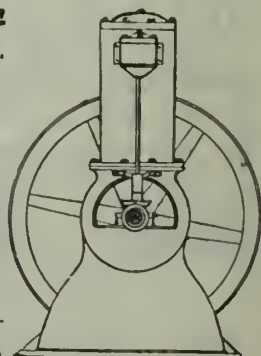
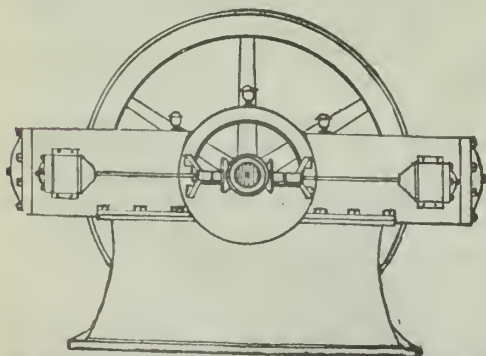
P. C. HIGGINS.

NOTE.—Both of these Engines were shipped to the parties named, and were set up by them solely by the diagram and printed directions we sent them.

Pumping Plants, Yachts & Launches, Street Cars, Fire Engines, Water Works, Etc.

ELECTRIC VAPOR ENGINE CO.  
218 California St., San Francisco.

Complete Plants of all kinds, Stationary or Mounted on Wheels  
U. S. AND FOREIGN PATENTS.





# FRUIT MARKETING.

## California Fruits in Illinois.

EDITORS PRESS:—Although it may be too early to predict with much certainty the prospect for a crop of fruit here, yet we can say that so far the present winter has been favorable. While we have had no very cold weather, the general temperature has been such that fruit buds have not developed yet so as to be hurt if the temperature should go as low as zero, though a few days of warm weather would bring them out so that a freeze such as we had the first of March last year would kill them to some extent. Peach trees were injured some by the heavy load of ice that came upon them the day before Christmas, some reporting that a third of the trees were broken down. My trees were not injured by that storm, and I do not know of any in this immediate vicinity that were, the injury being farther south of here.

Of the small fruits, strawberry plants are in better condition for a crop than they were last year. The vines are not so thick on the ground, and the buds have not developed. Other small fruits seem to be in equally good condition.

A word in relation to California fruits in our market may be of interest. A few days ago I stepped into the store of one of our leading grocers, Mr. J. M. Evans, and found the following canned goods on his shelves with the prices attached as here noted:

Muscat Grapes.—Hercules Packing Co., 20 cents per can. A. Lusk & Co., Bear Brand, 25 cents per can.

Crawford Peaches.—Sierra Packing Co., 25 cents per can. J. M. Spafford & Co., Golden West Brand, 30 cents per can. A. Lusk & Co., Bear Brand, 30 cents per can.

Apricots.—Pacific Packing Co., 20c per can; Eagle Canning Co., 20c per can.

White Cherries.—Hercules Packing Co., 35c per can.

Black Tartarian Cherries.—Santa Rosa Packing Co., 25c per can.

Egg Plums.—Carquinez Packing Co., 20c per can.

I might say that upon asking the price of some Ben Davis apples I saw in the same store, it was given at 55c a peck, which would be \$2.20 a bushel. The sale of California canned fruit has been double what it was last year. The only Baltimore goods that I saw on the shelves were a few canned pears.

The forepart of the season Mr. Evans sold quite a quantity of green California fruit, getting it from Chicago. He also sells canned goods in gallon cans. Chicago seems to be the distributing point for California goods to this part of the Mississippi valley.

Carbondale, Ill. G. H. FRENCH.

## Eastern Fruit Shipments.

The following table of the Eastern shipments of California fruit, in pounds, by the Southern Pacific Company's lines during the year 1890, as given by the Sacramento Union, will answer numerous inquiries and be read with interest by all:

Stations.	Dried Fruit.	Deciduous Fruit.	Citrus Fruit.
San Francisco.....	4,708,630	75,520	144,500
Oakland.....	856,020	1,871,930	.....
Sacramento.....	8,275,920	46,865,220	.....
San Jose.....	13,962,210	12,185,020	.....
Stockton.....	8,534,350	5,040,630	.....
Marysville.....	2,131,770	992,510	20,850
Los Angeles.....	2,256,050	1,063,290	7,477,120
Colton.....	2,592,900	.....	10,801,850
Totals.....	43,377,910	68,031,120	18,444,320

Stations.	Nuts.	Raisins.	Canned Goods.
San Francisco.....	181,320	597,620	45,630,140
Oakland.....	.....	20,050	316,240
Sacramento.....	108,170	3,797,290	10,376,640
San Jose.....	30,000	185,440	16,654,780
Stockton.....	20,880	20,143,590	1,112,580
Marysville.....	21,140	546,340	3,422,660
Los Angeles.....	1,201,430	429,140	601,960
Colton.....	16,290	1,346,800	3,108,970
Totals.....	1,574,230	27,370,330	80,121,950

## Cattle Sale.

The sale of Black Polled and Devon cattle from the Cook Stock Farm, held in this city on the 5th inst., was well attended, but there were evidently few buyers present. Thirty-one head of black cattle sold for an average of \$32.35; 20 head of Devons, an average of \$31; 2 Short-horn bulls, 13 months old, each, \$62.50.

The cattle were all young and in nice condition, and would have sold for more money had there been any demand for them among breeders; but, so far as we could learn, nearly all of the bulls were for use among beef cattle on large ranges, and few, if any, to those intending to start new herds of either of the breeds.

The demand for the kind of cattle offered is evidently not active in this State, as the bidding was slow and dragging throughout, excepting that for two young Shorthorn bulls, sold at the last of the sale, for which the bidding was brisk enough.

One of these sold for \$75, being the highest-priced animal of the sale, as well as one of the youngest—13 months old—by which it appears that cattle of this breed hold their popularity in this as in other parts of the world.

BACK FILES OF THE PACIFIC RURAL PRESS (unbound) can be had for \$2.50 per volume of six months. Per year (two volumes) \$4. Inserted in Dewey's patent binder 50 cents additional per volume.

## List of U. S. Patents for Pacific Coast Inventors.

Reported by Dewey & Co., Pioneer Patent Solicitors for Pacific Coast.

FOR WEEK ENDING MARCH 10, 1891.

- 448,105.—WHIFFLETREE—B. B. Allen, Hanford, Cal.  
 448,000.—BED—F. H. B. Babbe, S. F.  
 448,118.—WASHING MACHINE—J. N. Bunch, Eugene, Or.  
 448,121.—ROTARY ENGINE—W. & L. Carter, Spokane Falls, Wash.  
 447,810.—WATER-POWER WHEEL—J. & O. N. Dahlquist, Portland, Or.  
 448,012.—COIN-OPERATED CHAIR—L. M. Erb, S. F.  
 447,767.—ELECTRIC ARC LAMP—H. C. Forgason, Oakland, Cal.  
 448,022.—BALE-TIE FASTENER—D. W. Gish, San Jose, Cal.  
 448,185.—CANE MUSIC STAND AND HOLDER—Harders & Fleischmann, S. F.  
 448,035.—CABLE GRIP—C. Hazard, S. F.  
 448,047.—CAN-CAPPING MACHINE—M. Jensen, Astoria, Or.  
 447,830.—BASKET HAMPER—D. J. Johnson, S. F.  
 447,952.—WRENCH—T. D. Keith, South Pasadena, Cal.  
 448,153.—APPARATUS FOR INTENSIFYING ELECTRICAL UNDULATIONS—J. C. Ludwig, S. F.  
 447,781.—WEED-CUTTER—F. E. Lux, Walla Walla, Wash.  
 447,962.—LOCK VALVE AND FAUCET—C. E. Mason, S. F.  
 447,893.—WHEEL—J. G. McAlpine, Bakersfield, Cal.  
 447,972.—BRICKS—E. L. Ransome, S. F.  
 448,078.—FENCE POST—T. S. Riddel, Eugene, Or.  
 448,082.—TIMBER CLASP—H. A. Salisbury, Vinson, Or.  
 447,915.—CURRENT WHEEL—Wm. Stephens, Santa Rosa, Cal.  
 448,090.—CAR-REPLACER—Stephens & Mott, Redding, Cal.  
 447,983.—CASE FOR MAPS, ETC.—E. B. Strong, S. F.  
 447,991.—DECORATING GLASS, ETC.—Westwood & Mallon, Oakland, Cal.  
 447,992.—CULTIVATOR—B. P. Whitney, Los Alamos, Cal.  
 447,928.—SPRING SEAT FOR VEHICLES—W. H. H. Wright, S. F.

The following brief list, by telegraph, for March 17 will appear more complete upon receipt of mail advices:

California—Edwin J. Fraser, San Francisco, device for controlling horses; Edmund Kenoyer, Hanford, windmill; John E. Lambern and R. Richards, Dixon, washing machine; Geo. E. Minges, Atlanta, chaff separator for thrashers; Jas. W. Ferry and R. H. Dixon, Santa Rosa, pruning implement; Daniel S. Regan, assignor to Regan, vapor engine; Geo. St. Pierre, Oakland, bearing-box; Frank Walker, Los Angeles, window-screen; Facifax H. Wheelan, Santa Barbara, separator; Fred W. Wood and J. Fowler, Los Angeles, gripping machines for cable roads. Oregon—Wm. C. Price, Woodburn, horse-shoe gauge.

NOTE.—Copies of U. S. and Foreign patents furnished by Dewey & Co., in the shortest time possible (by mail or telegraphic order). American and Foreign patents obtained, and general patent business for Pacific Coast Inventors transacted with perfect security, at reasonable rates, and in the shortest possible time.

## Don't Fail to Write.

Should this paper be received by any subscriber who does not want it, or beyond the time he intends to pay for it, let him not fail to write us direct to stop it. A postal card (costing one cent only) will suffice. We will not knowingly send the paper to any one who does not wish it, but if it is continued, through the failure of the subscriber to notify us to discontinue it, or some irresponsible party requested to stop it, we shall positively demand payment for the time it is sent. LOOK CAREFULLY AT THE LABEL ON YOUR PAPER.

## Scales for Farmers and Merchants.

Attention is called to the advertisement in another column of the Osgood & Thompson Scale Company, Binghamton, New York. This company will ship you scales on trial; their claims are for cheapness, accuracy and durability. Send for their very interesting and instructive catalogue to the Pacific Coast Agent, C. H. Lindemann, 126 Kearny St., San Francisco, Cal.

## Raisin, Fruit and Grain Lands

## AT EXTREMELY LOW PRICES.

Seven miles S. W. of Tulare city. 164 acres of rich land is offered for sale, with well-improved homestead, large flowing artesian well, reservoir, alfalfa, orchard (seven years old), pasture, one of the healthiest and most comfortable seven-room, two-story residences in Tulare valley. Must be seen to be appreciated. Will be sold soon at a very low price and extraordinary reasonable terms to a good purchaser. Some 320 acres of good and well-cultivated land adjoining is also offered low. Address E. M. Dewey, Publisher, Porterville, Tulare Co.; A. T. Dewey, 220 Market St., S. F.; or call on Capt. Thos. H. Thompson, Tulare City, Cal.

**DEWEY & CO**  
**PATENT**  
**SOLICITORS.**  
 220 MARKET ST. S. F.  
 ELEVATOR 12 FRONT ST. S. F.

## A Few Local Experiences.

[Copy.]

CONCORD, CAL., Dec. 23d, 1890.  
 MESSRS. G. G. WICKSON & Co.—Gentlemen: In response to your inquiry, I will say that I consider the Rochester Gang Plow the best that I have ever used or seen.  
 [Signed] B. H. BANCROFT.

APTOS, CAL., Dec. 23d, 1890.  
 MESSRS. G. G. WICKSON & Co.—Gentlemen: Having used the Rochester Orchard Gang Plow in my Orchard, I am pleased to state that it does its work very well, and is much lighter on my team than I expected.  
 [Signed] E. C. WILLEKES McDONALD.

SARATOGA, CAL., Jan. 3d, 1891.  
 MESSRS. G. G. WICKSON & Co.—Gentlemen: The "Cyclone Pulverizer" I purchased from you last year I have thoroughly tested, and am well pleased with it. For the last workings of an orchard it is especially valuable, leaving the ground well pulverized and level, and I think it deserves a trial by horticulturists.  
 [Signed] GEO. W. HANDY.

SANTA ROSA, CAL., July 14, 1890.  
 MESSRS. G. G. WICKSON & Co.—Gentlemen: We have used a set of your Deerfield Steel Harness in plowing vineyard, and find it the most complete arrangement we ever saw. We have used them also for two-horse work on wagon, and they work equally as well as in our vineyard or orchard work.  
 [Signed] W. E. & H. BENJAMIN.

EVEROREEN, CALIFORNIA, Aug. 1st, 1890.  
 MESSRS. G. G. WICKSON & Co.—Gentlemen: I take pleasure in stating that your Deerfield Steel Harness has been given a thorough trial in my vineyard and found to work well, preventing injury to vines and trees to a great extent. It is a decided advantage to be able to hitch up the horses separately in the Harness and attach them afterward.  
 [Signed] WILLIAM WEHNER.

CARPINTERIA, CAL., February, 1891.  
 GENTLEMEN: After giving the Deerfield Steel Harness a trial, I am prepared to say that I find it very successful for use in orchards. I can recommend it to all who wish to use a harness which will not injure their trees.  
 [Signed] G. F. SMITH.

CARPINTERIA, CAL., February, 1891.  
 GENTLEMEN: After having used the Deerfield Steel Harness and giving it good tests, I am now prepared to say that it is the best harness for orchard work I have had on my place. I have recommended its use to my neighbors and have no hesitation in giving you a recommendation for it.  
 [Signed] RUSSELL HEATH.

Send for Circulars. Address  
 G. G. WICKSON & CO.,  
 3 and 5 Front St., San Francisco.  
 346 N. Main St., Los Angeles. 141 Front St., Portland.

## NEWSPAPER AGENTS WANTED.

Extra inducements will be offered for a few active canvassers who will give their whole attention (for a while at least) to soliciting subscriptions and advertisements for this journal and other first-class popular newspapers. Apply soon, or address this office, giving address, age, experience and reference. Special inducements to old agents.

DEWEY & Co., Publishers,  
 No. 220 Market St., S. F.

## FOR SALE!

## PINOLITO OLIVE RANCH!!!

## FORTY-SIX ACRES OF HILL LAND

In the Town of Auburn, Placer Co.

Red soil, superimposed upon upturned, friable, decomposing slate, yielding iron and alumina, thus furnishing a soil which, as Prof. Hilgard said after his analysis, will retain moisture, will not require irrigation, and will not allow the vegetable mold to leech away; thus suited to the growth of fruit trees, especially the olive, as has been demonstrated both by the remarkable growth of the tree and the yield and the quality of oil.

It is situated only 15 minutes walk from Auburn Station—the C. P. R. R. passes along one side—and is a less distance from the Court House. Thirty acres improved and planted to olives, set at long distances for permanent growth, and other fruits planted between the rows for temporary profits, mostly peaches of three best varieties, ripening in succession; prunes, mostly Petite; plums of several varieties, as Kelsey, Japan, Shropshire Damson, etc.; figs of several best varieties; a few apples, nectarines, blackberries, etc. Two acres of table and raisin grapes, never irrigated, the vines remarkably vigorous and in full bearing. The trees, especially the 1500 olive, have all been planted with regard to permanency. About one-half of them have an orchard growth of seven years; fruited last year 300 pounds, this year nearly one ton. They are mostly Mission and Picholine, with a few trees of other choice varieties. Two crops of the olives have been pressed. The yield has been, for the first press, 14 per cent of very clear delicious table oil, and four per cent from the second press—the Picholine yielding this, of a peculiarly clear, nutty oil.

There is on the ranch a few acres of grain sown for hay; two acres of well-set alfalfa, below the Auburn ditch, which crosses one corner of the property; also a small house of four rooms and a kitchen; a well of good water; a small barn; a strong, permanent spring of soft, cold water, which wells up through the slate; a two-inch iron pipe connects the spring with an iron-bound 20,000-gallon tank, situated on a beautiful pine clad hill, 40 feet above the spring, a point which overlooks the town and gives very charming distant views, and is one of the most lovely sites for a residence to be found. The water is pumped to the tank by a duplex pump; the power, a four-horse steam engine, which furnishes power sufficient to pump, saw wood, run an olive crusher and do all needed shop work.

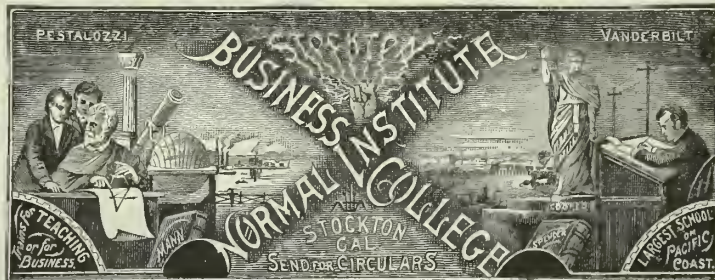
The land is all suited to fruit, excepting along a rocky ridge, which furnishes three very desirable residence sites, and the olive, set promiscuously, thrives finely among the rocks. The property can be conveniently divided along a sag which separates two of the high knobs, and water from the spring can be pumped to each of them.

This desirable property is now offered for sale for less than the improvements cost. The land is fenced, the title good and unencumbered. It is connected by a roadway, which is one of the improvements made, with one of the principal streets of Auburn.

The sale will convey the entire plant, furniture in the house, all utensils, etc. If sold before April 1st the sale will include the coming crop. If later, the crop will be reserved, unless otherwise by special agreement. If desired, one-half the purchase money can remain five years, secured by mortgage at eight per cent. For price and any further information desired, address

A. H. AGARD,

No. 1259 Alice Street, - - Oakland, Cal.



## THE LEADING FEATURE OF THE SCHOOL IS ITS HOME.

TUITION ONE YEAR (52 WEEKS).....\$75 00  
 TUITION SIX MONTHS (24 WEEKS).....50 00  
 EXCELLENT BOARD PER MONTH (4 WEEKS).....10 00

Course Thorough, Rates Lowest, Instruction the Best, and School the Most Reliable. Address W. C. RAMSEY.

**CLARKS CUTAWAY PLOW**  
**REVOLVING PLOW**  
 A Complete Revolution in Plowing  
 Requires Less than Half the Power  
 of any other Gang Plow.  
 Strong and Durable. Makes a Perfect Seed Bed.  
 SEND FOR SPECIAL CIRCULAR. SOLE  
**HIGGANUM MFG. CORPORATION** Manufacturers  
 HIGGANUM, CONN., or 183 WATER STREET, NEW YORK.

## THE BLUE RIBBON CART, WITH PHAETON BODY.

**\$35**  
 Has a seat wide enough for two, with box underneath for parcels. The body has been lengthened, is securely framed and strengthened; by making the panels in one piece. Seven wheels, steel axles, and curved dash. Finished in scarlet lake or brewster green. The "Blue Ribbon" has proved to be the best built, most popular and best selling low-priced Phaeton Cart ever brought to this market. With Patent Spiral Spring Lazy Back. Shipped securely crated. Weight, 175 pounds.

**FRANK BROTHERS,** 33 & 35 MAIN STREET, SAN FRANCISCO.



## Breeders' Directory.

Six lines or less in this Directory at 50c per line per month.

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**PERRIN STANTON**, Sacramento, Cal., importer and breeder of Registered A. J. C. C. Jersey Cattle of the Best Strains. Stock for sale.

**HENRY HAMILTON**, Westley, Cal., breeder of Kentucky Jacks and Jennies, Draft Horses and Holstein Cattle. Jacks, Horses and Mules for sale.

**J. R. ROSE**, Lakeville, Sonoma Co., Cal., breeder of Thoroughbred Devons, Roadsters and Draft Horses.

**P. PETERSEN**, Sites, Colusa Co., Importer & Breeder of registered Shorthorn Cattle. Young bulls for sale.

**WILD FLOWER STOCK FARM**, Fresno Co. A. Heilbron & Bro., Props., S. C. Breeders of thoroughbred strains and Crutcher Shorthorns; also Registered Herefords; a fine lot of young bulls in each herd for sale.

**CHARLES E. HUMBERT**, Cloverdale, Cal., Importer and Breeder of Recorded Holstein-Friesian Cattle. Catalogues on application.

**PERCHERON HORSES**.—Pure bred horses and mares, all ages, and guaranteed breeders, for sale at my ranch near Lakeport, Lake Co., Cal. New catalogue now ready. Wm. B. Collier.

**WILLIAM NILES**, Los Angeles, Cal. Thoroughbred Registered Holstein and Jersey Cattle. None better.

**T. PHILLIPS**, Simi, Ventura Co., Cal. Pure Bred Percheron Horses for sale.

**OOTATE RANCH BREEDING FARM**, Page's Station, S. F. & N. P. R. R. P. O., Penn's Grove, Sonoma Co., Cal. Wilfred Page, Manager. Breeders of Short Horn Cattle, English Draft Horses, Spanish Merino Sheep and Berkshire Swine.

**PURE-BRED HOLSTEIN FRIESIAN CATTLE** for Sale. Bonnie Brae Cattle Co., Hollister, Cal.

**JOHN LYNCH**, Petaluma, breeder of thoroughbred Shorthorns. Young stock for sale.

**J. H. WHITE**, Lakeville, Sonoma Co., Cal., breeder of Registered Holstein Cattle.

**M. D. HOPKINS**, Petaluma, importer and dealer in Eastern registered Shorthorns, Red Polled Cattle, Holsteins, Devons and Shropshire Sheep.

**PETER SAGE & SON**, Lick House, San Francisco, Cal. Importers and Breeders, for past 18 years, of every variety of Cattle, Horses, Sheep and Hogs.

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**WOODSIDE POULTRY YARDS**, Danville, Contra Costa Co., Cal. Thoroughbred White, Black and Brown Leghorns, Langshans, Houdans, Wyandottes and Barred Plymouth Rock Eggs. Price \$1 to \$2 per setting. Send for circular.

**DELLWOOD POULTRY YARDS**, Napa; Thoroughbred Fowls; Eggs \$2 per 13, \$5 per 39.

**MADISON H. CRITCHER**, Bonnie Doon, Santa Cruz Co., Cal. Thoroughbred Poultry. Settings, \$3.

**JOHN McFARLING**, 706 Twelfth St., Oakland, Cal., Importer and Breeder of Choice Poultry. Send for Circular. Thoroughbred Berkshire Pigs.

**E. HART**, Clements, San Joaquin Co., Cal. Breeding of Bronze Turkeys a specialty. Hens \$5, Toms \$3 each. Eggs, \$3 for 13; reduction on two or more sittings.

**IF YOU KEEP ANY KIND OF FOWLS**, Pet Stock, Dogs, &c., it will pay you to send your address at once to C. R. Barker, Santa Clara, Cal. You cannot afford not to do it. It will cost you but one cent and you will receive something worth ten times that.

**GALT POULTRY YARDS**, Galt, Sac. Co., Cal. Breed most popular varieties of thoroughbred fowls.

**GEO. TREFZER**, 911 E St., Sacramento, Cal., breeder of Houdans, Black and White Leghorns, Prize Winners at late State Fair. Eggs, \$2.50 for 13; \$4 for 26.

**CALIFORNIA POULTRY FARM**, Stockton, Cal.; send for illustrated and descriptive catalogue, free.

**R. G. HEAD**, Napa, Importer and Breeder of Land and Water Fowls. Send for New Catalogue.

**E. F. MUSSON**, San Leandro. Box 155. Fine stock.

**O. J. ALBEE**, Lawrence, Cal. Pure bred poultry.

### SHEEP AND GOATS.

**J. B. HOYT**, Bird's Landing, Cal., Importer and Breeder of Shropshire Sheep; also breeds Cross-bred Merino and Shropshire Sheep. Rams for sale.

**E. W. WOOLSEY & SON**, Fulton, Cal., Importers & breeders Spanish Merino Sheep; ewes & rams for sale.

**R. H. CRANE**, Petaluma, Cal., breeder and importer. South Down Sheep from Illinois and England for sale.

**KIRKPATRICK & WHITTAKER**, Knight's Ferry, Cal., breeders of Merino Sheep. Rams for sale.

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**ANDREW SMITH**, Redwood City, Cal.; see adv't.

### SWINE.

**DELLWOOD**, Napa; Thoroughbred Berkshire Pigs.

**JOSEPH MELVIN**, Davisville, Cal., Breeder of Poland-China Hogs.

**WILLIAM NILES**, Los Angeles, Cal. Thoroughbred Poland-China and Berkshire Pigs. Circulars free.

**TYLER BEACH**, San Jose, Cal., breeder of Thoroughbred Berkshire and Essex Hogs.

**ANDREW SMITH**, Redwood City, Cal.; see adv't.

### BEEES.

**APIARIAN SUPPLIES** for sale by Mrs. J. D. Enns, Napa City, Cal.

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— OF —  
STANDARD AND HIGH BRED

## TROTTER STOCK,

— COMPRISING —

## BROOD MARES, STALLIONS, COLTS AND FILLIES.

The get of ALCONA, GRAND MOOR, MONROE CHIEF, LYNWOOD, MOUNTAIN BOY, NOONDAY, WHIPPLE'S HAMBLETONIAN, ANTEVOLO, MAMBRINO WILKES, SYDNEY, ALCONA CLAY, HAWTHORNE, BELNOR, and other noted horses.

Property of MR. E. NEWLAND and A. C. HENRY, ESQ.

To be Sold at OAKLAND TROTTER PARK,

AT 1 P. M. ON SATURDAY, APRIL 4, 1891.

Catalogues will be issued immediately.

**KILLIP & CO., AUCTIONEERS,**  
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## Walnut Grove Herd of Poland China Hogs

**JOSEPH MELVIN,**

Proprietor,

DAVISVILLE, CAL.

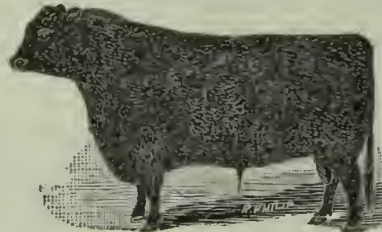


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— OF —

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**POLAND CHINA SWINE.**

At the head of the herd stands PERFECTION KING, No. 7579; KING OF THE WEST, No. 8921; HOOSIER BOY 2d, No. 8923. Breeding Sows as fine individuals and as strictly bred as any in the land; also recorded in the C. P. C. R. record with pedigrees full to standard. Breeders for sale at all times. I have first-class Pigs of both sexes at reasonable prices. Residence 1 1/2 miles northeast of Davisville, Cal. Personal inspection solicited. All inquiries promptly answered. Yours truly, **JOSEPH MELVIN.**



**AMERICAN RIVER BREEDING FARM.**  
Importers and Breeders of ABERDEEN ANGUS CATTLE. Proprietor, J. E. CAMP, Sacramento, Cal.

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Ducks, Turkeys, Geese, Peacocks, Etc.

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BREEDER AND RAISER OF THOROUGHBRED

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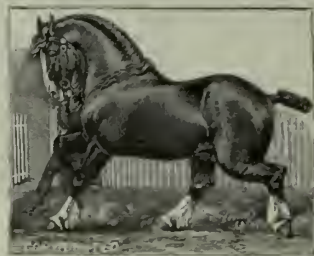
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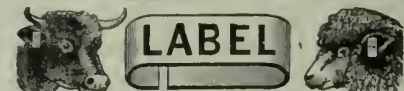
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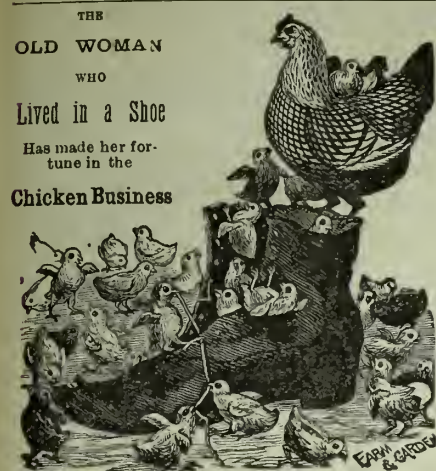
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Actual tests prove that common or grade cows give as good results in cream and butter, when pains have been taken in selection, as Jerseys, Holsteins, or other imported stock, but in order to do this, they must be bred from deep and rich milkers, the hull as well as the heifer, and the best authorities place more dependence on the bull than on the heifer, thus showing that we should take great care in the selection of cows to raise hulls from. Begin at once to test your milk, and note amount by weight, given by each cow. Then multiply the pounds of milk by the per cent shown by the tester and you know just what each cow is worth to the dairy. There is a great deal of money made by dairying, but it is all made from good cows. If you want to make money out of your dairy, rear your own cows and use only your best ones as mothers and breed them to a good bull.

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One gallon, mixed with 60 gallons of cold water, will dip thoroughly 180 sheep, at a cost of one cent each. Easily applied; a nourisher of wool; a certain cure for SCAB. Also  
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Mixes instantly with water. Prevents the fly from striking. In a two-pound package there is sufficient to dip 20 sheep, and in a seven-pound package there is sufficient to dip 100 sheep.  
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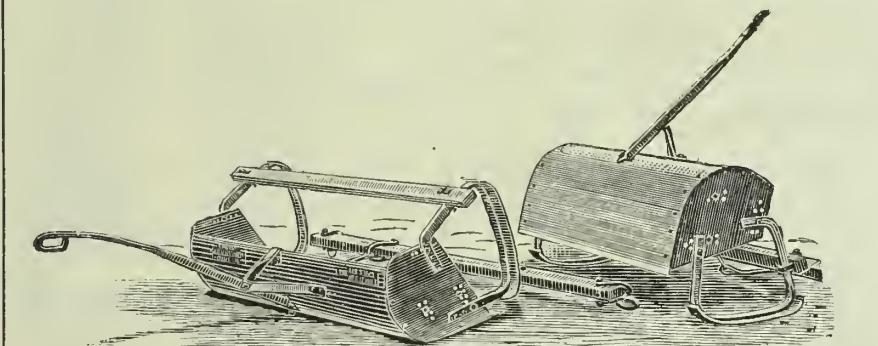
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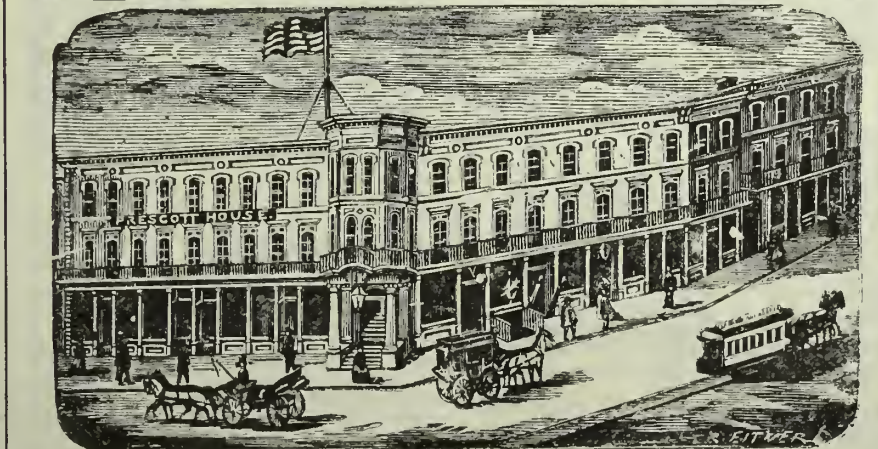
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Extra choice in good packages fetch an advance on top quotations, while very poor grades sell less than the lower quotations.

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Poor... 42 50 @ 47 50

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Cal. Poor to fair... 18 @ 20  
do good to choice... 21 @ 22  
do Giltedged... 23 @ 24  
do Creamery rolls... 24 @ 25

CRACKERS.  
Cal. choice mild... 12 @ 13  
do fair to good... 10 @ 11  
do gilt edged... 12 @ 13  
Young America... 11 @ 12  
N. York Cream... 13 @ 15  
Western... 11 @ 13

EGGS.  
Cal. ranch, doz... 18 @ 19  
do do selected... 20 @ 21  
do store... 18 @ 19

FEED.  
Bran, ton... 14 00 @ 15 00  
Feedmeal... 30 00 @ 31 50  
Gr'd Barley... 31 00 @ 32 50  
Middlings... 17 00 @ 18 50  
Oil Cake Meal... 28 00 @ 29 50  
Manhattan Food... 100 lbs 7 50

HAY.  
Compressed... 15 50 @ 19 00  
Wheat, per ton... 13 00 @ 17 50  
do choice... 18 50 @ 21 00  
Wheat and Oats... 13 00 @ 17 00  
Wild Oats... 15 50 @ 18 50  
Tame do... 12 00 @ 15 00  
Barley... 11 50 @ 14 00  
Barley and Oats... 11 50 @ 14 00  
Alfalfa... 11 00 @ 12 00  
Clover... 11 00 @ 12 50  
Straw bale... 60 @ 75

FLOUR.  
Extra, City M... 4 40 @ 4 50  
do City Mills... 4 10 @ 4 50  
Superfine... 3 10 @ 3 65

GRAIN, ETC.  
Barley, feed, cbl... 1 33 @ 1 37  
do Choice... 1 38 @ 1 41  
do Brewing... 1 41 @ 1 42  
do do Giltedged... 1 45 @ 1 46  
do do Choice... 1 50 @ 1 51  
Buckwheat... 1 40 @ 1 55  
Corn, White... 1 35 @ 1 40  
Yellow, large... 1 35 @ 1 37  
do, small... 1 37 @ 1 40  
Oats, milling... 1 90 @ 1 95  
Surprise... 1 90 @ 1 92  
Feed, Choice... 1 82 @ 1 83  
do good... 1 72 @ 1 73  
do fair... 1 72 @ 1 73  
do Gray... 1 72 @ 1 77  
do Black... 1 72 @ 1 73  
Rye... 1 27 @ 1 32  
Wheat, milling... 1 55 @ 1 56  
Gilt edged... 1 52 @ 1 54  
do Choice... 1 51 @ 1 52  
do fair to good... 1 51 @ 1 52  
Shipping, choice... 1 51 @ 1 52  
do good... 1 45 @ 1 50  
do fair... 1 45 @ 1 47  
Sonora... 1 47 @ 1 50

HIDES.  
Dry light to h'vy... 9 @ 9  
Salted... 5 @ 7

HOPS.  
Oregon, 1890... 25 @ 35  
Cal 1890 Choice... 32 @ 35  
do Fair to G'd... 25 @ 30  
NUTS-JOBINO.  
Walnuts, Cal. lb... 8 @ 9

VEGETABLES.  
Okra, dry, lb... 20 @ 30

Choice selected. In good packages, fetch an advance on top quotations, while very poor grades sell less than the lower quotations.

BANANAS, bunch 1 50 @ 2 50  
Limes, Mex 10 00 @ 12 00  
do California 4 00 @ 5 00  
do do sm'l bxs 1 00 @ 1 50

LEMONS, box.  
do Riverside... 2 00 @ 3 00  
do Los Angeles 1 25 @ 1 50  
do Sicily, bx... 5 00 @ 6 00

SEEDLING ORANGES.  
do Riverside... 1 75 @ 2 25  
do Los Angeles 1 25 @ 1 75

NAVES/ORANGES.  
do Riverside... 3 75 @ 4 25  
do Los Angeles 2 50 @ 3 00  
do do scaly... 1 50 @ 2 00  
do Duarte... 2 50 @ 3 25  
Pineapples, doz 4 00 @ 5 00  
Apples, com box 1 00 @ 1 50  
do good... 1 50 @ 2 00  
do choice... 2 00 @ 2 50  
do Giltedged... 2 75 @ 3 00  
do M'tain, bbl 6 00 @ 10 00

VEGETABLES.  
Okra, dry, lb... 20 @ 30

\*In quoting oranges, regular sizes are given, viz., from 112 to 176 for Naves, and 126 to 226 for seedlings; odd sizes 50 cents to \$1 @ box less.

FEWER EASTERN EGGS.-In February and March of last year the receipts of Eastern eggs aggregated 500,310 dozen; but in February and so far in March of this year, they do not aggregate 50,000 dozen. This is accepted as evidence that California farmers are giving more attention to the poultry product.

Where are the Best Bugles Made?  
The Pioneer Buggy Co., Columbus, Ohio, on receipt of ten cents, will send you their treatise on the horse which also answers the above question.

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PACIFIC COAST WEATHER FOR THE WEEK.

[Furnished for publication in this paper by officer in charge of branch Signal office, Division of the Pacific.]

Table with 12 columns: Location (Olympia, Portland, Eureka, Red Bluff, Sacramento, S. Francisco, Fresno, Keeler, Los Angeles, San Diego) and 4 rows of weather data (Rain, Temp, Wind, Weather).

EXPLANATION. Cl, for clear; Cy, cloudy; Fr, fair; Cm, calm; indicates too small to measure. Temperature wind and weather at 5 P. M. (Pacific Standard time) with amount of rainfall in the preceding 24 hours. T indicates trace of rainfall. P C, partly cloudy. Rn, rain.

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OUR FRIENDS can do much in aid of our paper and the cause of practical knowledge and science, by assisting Agents in their labors of canvassing, by lending their influence and encouraging favors. We intend to send none but worthy men.

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Largely Brilliant Blood,  
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At the Great French Fairs.  
PRICES BEYOND COMPETITION.  
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Thirty-five miles west of Chicago, on C. & N.W. R.R. between Turner Junction and Elgin.

DRIFTED SNOW FLOUR advertisement with image of a flour bag.

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STOCK SCALES advertisement for 4 TON scales, U.S. STANDARD, FULLY WARRANTED.

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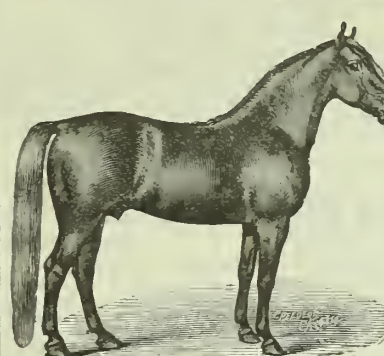
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ARE THE MOST POPULAR AMONG DAIRYMEN. BECAUSE THEY MAKE MORE BUTTER. BECAUSE THEY MAKE BETTER BUTTER. BECAUSE THEY SAVE MOST LABOR.

COOLEY CREAMER advertisement with image of a creamer and text about 22 GOLD MEDALS.

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CHEAPER and BETTER than Ever. Their 2-ft. high 3-cable fence has taken the trade. Farmers put barbed wire above it and have the CHEAPEST GOOD Fence that can be made in ANY WAY. Rabbits cannot get through. Hogs cannot break it and Horses or Cattle cannot get over it. All our



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JAMES A. ANDERSON, Proprietor

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3,000 TAHITI SEEDLING  
ORANGES!FROM 2 TO 4 FEET HIGH, AT LOWEST PRICE  
Apply toG. TOSETTI, NURSERYMAN,  
San Leandro, Alameda County, Cal.

## FRANK KUNZ,

Proprietor of the Union Nursery, 2129 Tenth  
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HAS FOR SALE A FINE LOT OF OLIVES,  
Grown in the open ground, namely: Manzanillo or  
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of Champrope Excelsior, which he offers at very low rates.

## FRUIT TREES FOR SALE.

TRAGEDY PRUNES, YEARLINGS; EARLY CRAW-  
ford Peaches, Yearlings; French Prunes, June buds.  
Call or inquire at 910 Fifth Street, SACRAMENTO, CAL.  
INGLESIDE NURSERY COMPANY

TRUMBULL & BEEBE'S NURSERIES,  
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THE ATTENTION OF PLANTERS IS INVITED TO OUR COMPLETE STOCK OF

Almonds, Apples, Apricots, Cherries, Figs, Peaches, Pears, Plums, Prunes, Quinces,  
Chestnuts, Walnuts, Persimmons, Pomegranates, Olives, Oranges, Lemons,  
Limes, in Full Assortment; Berry Bushes and Plants; Ornamental  
Trees and Shrubbery, Roses, in Large Assortment, &c., &c.

Our Stock has been carefully and well grown, WITHOUT IRRIGATION, FREE FROM INSECTS, and is UNSUR-  
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500,000 ROOTED MUSCAT VINES

Can be Delivered from Fresno or Stockton.  
Special Prices on Lots of 50,000 or more.White Adriatic and San Pedro Figs  
UMBRELLAS.A Full Line of Fruit and Ornamental Trees, Shrubs, Vines, Palms, Roses & Small Fruits  
ESTABLISHED 1858. WRITE FOR CATALOGUE AND PRICE LIST.

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NOW  
READY PLANTS, PLANTS, PLANTS! NOW  
READY

We have now ready for shipment a choice assortment of Transplanted Vegetable Plants, well grown and well  
packed to stand shipment to distant points, embracing all the leading varieties of Tomato, Cabbage, Egg, Pepper,  
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ROSES OUR SPECIALTY. 600 Varieties kept in stock. Send for Catalogue and  
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Two years old, 5 to 7 feet high.

Nevadillo Blanco  
OLIVE TREES,

One year old, 2 to 3 feet high.

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ORDERS WILL BE RECEIVED FOR A VERY  
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Varieties:

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CUCCO, } For Eating.  
PALAZZUOLO, }

These trees are original importations from Italy, all  
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These Grapes make the finest seedless raisins known  
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Apple, Almonds, Pear, Plum, Prune, Apricot and Cherry.

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of Prune, Plum, Apricot, Apple, Peach, Cherry, Olive, Fig and Nut Trees, Grape Vines  
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## MOUNTAIN NURSERY.

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First Class, 4½ to 6 feet; Second Class, 3½ to 4½ feet.

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SEED BED ORANGE PLANTS,  
LISBON LEMONS,

WASHINGTON NAVELS,  
MEDITERRANEAN SWEETS,  
EUREKA LEMONS,

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Fine Stock of ORANGES, LEMONS, OLIVES, NUT TREES and FIGS.

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300,000 GRAPE VINES (Strong Roots). Small Fruits, Berry Bushes, Etc., Etc., in  
Large Quantities.

ORNAMENTAL and SHADE TREES, Roses, Standard Roses, Clematis, Trailing Vines,  
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Packing Grounds at Niles, Cal., Unsurpassed Facilities for Shipping. Correspondence solicited.

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**THE DINGEE & CONARD CO.**—Rose Growers and Seedsmen—West Grove, Pa.

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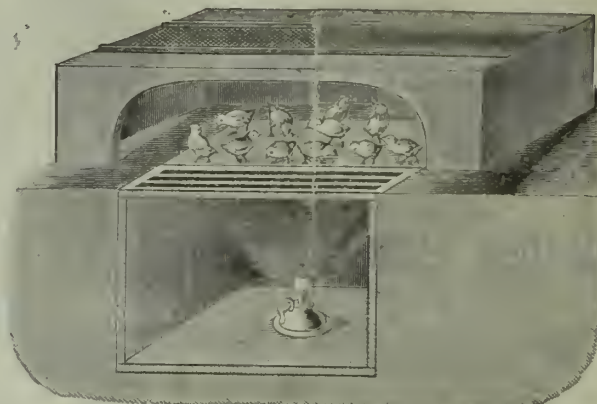
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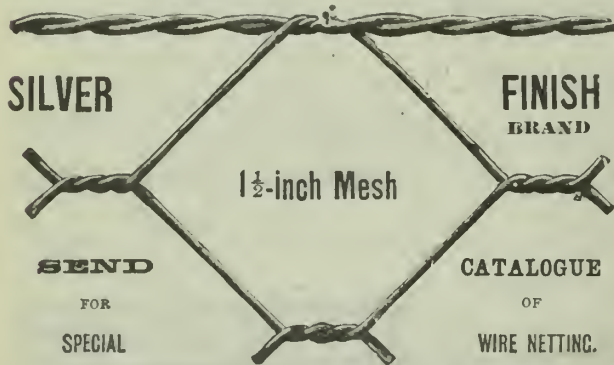
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## PACIFIC INCUBATOR CO.

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GROUP OF GAME FOWLS.

# STOCKTON COMBINED HARVESTER AND AGRICULTURAL WORKS,

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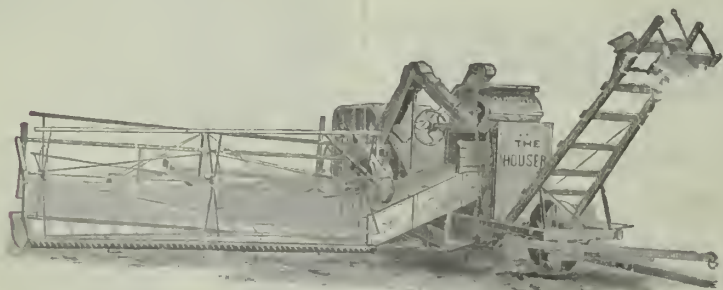
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It is Lighter Draft than any Other Make of Combined Harvesters.



WE USE FOR AN EXTRA CLEANER,

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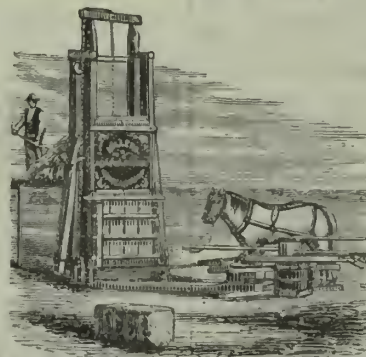
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REQUIRES  
BUT  
FOUR MEN  
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CAPACITY  
30 TONS  
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## CARS OF EVERY DESCRIPTION.

STEAM,  
ELECTRIC, CABLE,  
AND HORSE.

PASSENGER,  
BAGGAGE,  
AND FREIGHT  
CARS.







Vol. XLI.—No. 13.

SAN FRANCISCO, SATURDAY, MARCH 28, 1891.

{ DEWEY & CO., Publishers,  
Office, 220 Market St.



THE HYBRID REMONTANT ROSE, HEINRICH SCHULTHEIS.

#### A Grand Rose.

We are indebted to John N. May of Summit, New Jersey, the well-known rosarian, for the opportunity of placing prominently before our readers the grand rose which appears upon this page. It is a variety of well-proved merit, but one which had become quite rare both in this country and Europe. It has an interesting history and its reassertion of a claim to popular favor comes about in so interesting a way that we cannot refrain from its recital. Mr. Julius Roehrs, a Carlton Hill (New Jersey) rose-grower of great resources, imported a lot of Anna Alexieff roses, and about the middle of November, 1887, noticed among them a bloom of exceptionally fine quality very different from the flowers planned for at planting. Experience with the apparent upstart taught Mr. Roehrs its fine forcing quality, and his sales of the out flowers demonstrated the popular appreciation of it. As it was thought to be new, it soon became known as the Roehrs rose, and Mr. Roehrs propagated a large stock for his own use and placed the balance in the hands of Mr. J. N. May for introduction to the trade.

Mr. May had the grand picture prepared and his announcement printed, but before sending it out found that the Roehrs rose was really the Heinrich Schultheis, and thus he placed it before the public in its proper character. We are pleased to note this fact, for we fear there are some rose propagators who would have taken a different course and have persisted that the rose was new, at least until the exclusive control of the stock passed away. If we mistake not, there are roses with such a history, and we are glad that the one we present on this page does not take place on that list.

We find then Mr. May or Mr. Roehrs, as the case may be, with a fine stock of Heinrich Schultheis on hand, and the rose is just as good and just as deserving of popularity as though it bore the name of an American rose grower. It is a fine, bright, clear, rose color of the largest size, possessing a fragrance superior to almost all other varieties of the Hybrid Remontant class. The fine foliage, clear stems from one to two feet long each, make it a favorite with amateurs, and all lovers of fine roses, and will be a grand addition to their collections. Who can report on this rose in California?

#### The Orange Trade.

The California orange crop this year is the largest on record. Though the trade opened slowly because growers were not satisfied with the terms offered, it is now being marketed actively and at satisfactory prices. The Florida crop was large but is well out of the way, and the supply from Europe has been reduced by the severe winter and disastrous storms already noted in the *RURAL*. Taken as a whole, the crop in California shows a decided improvement in quality, which probably is largely due to the fruiting of improved varieties and to better knowledge and better care of the trees. This is well illustrated by a published statement that a well-known orange-grower in Los Angeles will market this year over 10,000 boxes of the fruit against less than 1000 boxes last year. The increased yield is said to be due to the destruction of scale insects which threatened the life of the trees. Better informed dealers in this city are confident that under the new or improved system of ridding the trees of the scale and other pests, the older-established groves will turn out as many oranges, and of as

fine quality, as they did in their palmiest days. It is already noticeable that there is a very marked falling off in the quantity of "scaly" oranges marketed in this city, which shows that growers are mastering the situation.

The weather this season has been favorable for the maturing crop. Owing to its being fairly cool, oranges have ripened slowly, which has admitted of the market being supplied more evenly, and not being crowded, there being an absence, except of the poorer fruit, of forced sales. This slow ripening has admitted of fewer shipments to the East than was made up to this time in last year. Had the fruit matured rapidly, forced shipments would have followed and the Eastern markets be glutted with both Florida and California oranges, but as it now is the former were about all marketed before we began to send East in large quantities, which doubtless has tended to keep the markets firm and at good prices.

A dispatch in our market columns this week shows that there is great activity now in orange gathering, and the buyers are eager even at advanced rates. Producers have profited by their firm stand early in the season.



## CORRESPONDENCE.

Correspondents are alone responsible for their opinions.

## Reno, Nevada and Vicinity.

EDITORS PRESS:—During a recent visit to Reno, I gleaned a few facts from some of her citizens that may be worthy of notice. While not the metropolis of Nevada, being outranked in both age and population by Virginia City, it is generally conceded to have more elements of substantial prosperity than any other town in the State. It is pleasantly situated on the Truckee river at the northwestern edge of the famous Truckee meadows, a fertile and productive basin, moderately estimated at 225,000 acres of arable soil. Four-fifths of this extent, it is safe to assert, is devoted to pasturage and the production of hay. Though all kinds of cereals, vegetables and hardy fruits are congenial, no attempt has scarcely been made to produce them for export, it having generally been considered less remunerative than hay, which has usually found a ready sale at a high price. For hundreds of miles north, east and south of here, beef cattle are annually collected at this point and fed during winter months on the alfalfa hay of the meadows, and shipped as required to the California market.

At this place reside a number of the prominent stockmen of the State, the town affording ample educational and social advantages for families. Geo. W. Mapes, who bears the distinction of being the Cattle King of Nevada, and owning large herds in Northern California and Oregon as well as one of the public-spirited men of the place. Sheep as well as cattle owners rejoice over their success during the past year. While the year 89-90 proved the most ruinous in the loss of live stock since the country was occupied by white men, the last winter was about the lightest ever known. All stockmen I met reported alike: "No loss this year, and still in nearly as good condition as in the fall." Train loads of beef cattle were passing westward every day during my stay, and prices tended upward. I saw no mutton sheep being shipped, and it was said that the supply was literally exhausted. The last lots sold here brought over \$5 per head. Among those who have made sheep-raising a practical study and have had their efforts crowned with success in this part of the State, are D. C. Wheeler, H. Anderson, J. Talbott, Prosser, Franson and others. Shearing was just starting, it being the custom here to clip before lambing when the weather proves favorable. A heavy fleece is reported and a large increase of the flocks is confidently predicted on account of their thrifty condition. Among the enterprises inaugurated here is a commodious wool storehouse constructed last year, which ought to prove a success.

The Riverside Flour Mill of Reno bears a good reputation for the quality of its manufacture. Its capacity is 100 bbls. per day. From Mr. H. H. Beck, the superintendent I learned to my surprise that Washoe county produced for market only 350 tons of wheat last year. This gentleman has made a close calculation (and from his long and intimate acquaintance with the country his estimate should be reliable) and sums up that the Truckee Basin is capable of furnishing breadstuffs for the entire State. At present the Riverside Mill gets most of her grain from California, a small proportion coming from the Lovelock settlement on the Humboldt and from Honey Lake, also from Salt Lake Valley. It is Mr. Beck's opinion that farmers here would enhance their gains to devote more attention to wheat-growing as they would always find here a ready home cash market at \$8 per ton more than their California neighbors—that being the cost of importing grain by S. P. R. R. Reno has been unfortunate in losses sustained by fires from time to time, Riverside mill being the fifth and only mill now standing. The fire of two years ago has still left its mark, though the district has been partially rebuilt with substantial brick houses. Two causes seem to conspire in effectually preventing Reno from making the advancement which her position and other elements of prosperity would promise. Business men claim that the S. P. R. R. Co. have discriminated against Reno on freight charges, very materially for years, out of spite for having been compelled to pay their taxes to Washoe county. Another cause why capital and population seek other fields is said to be the high taxation imposed in Nevada in order to enjoy the luxury of a State government.

Reno has good transportation facilities, the overland S. P. R. R. from east to west, the V. & T. leading south and the N. O. O. R. y north. The Truckee river affords an unfailing supply of the finest water for every use, including mill power and for irrigation. A number of enterprising men here are investing capital for the advancement of irrigation schemes on a large scale. The town has a population of 4000. Its altitude is 4500 feet. For healthfulness it has very few rivals. Its claims in this respect are recognized substantially in different ways, one of which is in having established the best schools, both public and private, in the State, including the State University. I had the pleasure of visiting this institution, of which Prof. S. A. Jones is the president. It was established at Elko in '77 and removed to Reno in '83. The attendance is reported on

the increase, there being 60 students at present and ten instructors.

The various secret and benevolent Orders and churches appear to be well represented. The streets are lighted at night by electricity, and there is apparently an air of thrift and comfort about most of the homes, notwithstanding the murmur of dull times is occasionally heard.

I heard of a worthy enterprise which is being inaugurated by W. H. Gonid, an old patron of the RURAL PRESS. It is the establishment of a creamery, which is very much needed at Reno. I called on G. H. Douglas, another good friend of the PRESS. He has a fine farm three miles east of town. I also visited the State Insane Asylum, which is located one mile east of R. R. depot. I found Dr. G. H. Thoma, the superintendent, an affable gentleman, and in conversation with him learned that the institution has now 183 patients—largest number since its completion in 1881. The doctor gave it as his opinion that the most prevalent cause of insanity among his patients is syphilis and intemperance.

Adjoining the asylum, you are confronted with a species of political jobbery which was put through the Legislature in '83. The stone walls for a penitentiary, in a needless and half-completed state, mock the honest taxpayers who were jilted out of \$100,000. It is still believed, however, that the penitentiary will eventually be voted here from Carson City, and that in such case the present waste will not be all a waste.

F. B. L.

## Stanislaus Notes.

EDITORS PRESS:—Since the heavy rains have ceased falling, we are having fine weather here. The peach trees are in full bloom and the flowers are springing out of the moistened earth. The Oakdale Irrigation ditch is being pushed forward and we will have water by the first of May. The ditch is 12 miles long and has already cost \$75,000. Five thousand more will push it to this place.

The Turlock ditch is also being pushed as rapidly as possible. It is 40 miles long and will cost \$500,000. The Modesto ditch is surveyed, but nothing of importance is done to it. It is also 40 miles long and will cost \$600,000. In contemplation of the completion of these ditches, many trees and vines are being planted and nurseries are planted by almost every one. The vegetable gardens are being enlarged and many orange trees are being cultivated.

People, however, are not willing to invest largely in lands until they see the water here; there have been so many drawbacks in getting the ditches completed. There will evidently be a boom when the water gets here, as many inquiries are made about the price of land and the nature of the soil.

Among the prosperous fruit-growers might be mentioned A. Scheil, and the Knights' Ferry people, and the Stewarts of Oakdale, Mr. McHenry of Modesto, the Italian gardens, C. S. Hill, F. A. Sawyer and others. The Knights' Ferry oranges are the largest fruit of the kind brought to market.

The time will come when the land around this place will be out up into 10, 20 and 30 acre lots, and the population will be more than doubled. But it takes time to plant and to grow orchards. Ten years from now will present a different sight of the settlements around Oakdale. We do not wish to boom the place, as exaggerated statements only disappoint people. We are willing to let the place boom itself. Certainly the location is all that could be desired in regard to health and beauty of surface. The soil is well adapted for all kinds of fruit. All we need is water and capital and industry.

A large quantity of grain was sown around Oakdale this year and there is a promise of an abundant harvest. We will let you know when the ditch is completed to this place.

Oakdale

S. B. McCORMICK.

## Water Pipes for Irrigation.

EDITORS PRESS:—I have been a subscriber and constant reader of the RURAL for several years, and I have gained much information from the many essays therein; but there is one topic which I have never seen treated upon in your columns, and that is the subject of water pipes for irrigating purposes, the friction that the water has to encounter, etc. There must certainly be some among your correspondents who know all about those matters from actual experience, and from such I would like to hear.

Suppose that the main water ditch runs along a ridge 150 or more feet higher than the ground to be irrigated; the distance between 100 rods; the pipe after receiving its water from the main ditch descends the hill to a depth, if measured perpendicularly, of say 200 feet, there crossing a narrow ravine, thence ascending the opposite slope to a height of 100 feet, thence descending again 50 feet to the ground to be irrigated. Suppose this ground requires six inches of water. Under such a condition of things, I would ask how large a pipe is it necessary to have; or, in other words, how small a pipe could be used, considering friction, etc., to give satisfactory results? And also would like the experience of others as to the kind of pipe best adapted for that purpose.

Now another question: Mr. A, we will say, owns the ground just mentioned, and Mr. B, who lives beyond him, would like the pipe to

continue to his place adjoining, and large enough to supply both; but while Mr. A wants six inches Mr. B only wants three inches. Is there any way the water can be equitably divided in the pipe so that Mr. A and Mr. B can get their just proportion of water, and so that the pressure be not materially lessened for either Mr. A or Mr. B? Will some one give information on these points?

C. H. KELLOGG.

Newcastle, Cal., March 14, '91.

[These questions are both interesting and important. We should much like to have correspondence upon them.—EDS. PRESS.]

## FLORIST AND GARDENER.

## Native Plants in a San Rafael Garden.

EDITORS PRESS:—May I ask for precious space for a few lines in the "Florist and Gardener" column of your interesting and valuable paper to say that I have seen a handsome Toyon or California holly (*Heteromeles Arbutifolia*) in the garden at "Miller Hall," that is about four years old, is fully 12 feet high, and has been bearing beautiful scarlet bunches of fruit since last November. The tree was transplanted from the woods when very small to its present sheltered location of good soil, where it thrives satisfactorily and improves its fruit in size and color each year, until now it is "a certain charm and sweet delight."

I quite agree with your Santa Clara correspondent that California plants should be cultivated in California gardens. In the garden at the Miller Ranch I was also shown a towering Redwood tree from Nicasio Valley, that is nearly 80 feet high, planted to mark the centennial year of the immortal Declaration of Independence, 1876. The trunk is now 15 inches in diameter; the tree is sturdy and likely to reach mammoth proportions as it is well protected and in good ground. An attractive hedge I would suggest the wild flowering currant or "Incense plant" (so called by the native Californians, probably on account of the odor it exhales as resembling the perfume of burning incense which is used in Catholic church ceremonies).

It is a shrub of rapid growth with Currant leaves and abundant beautiful pink blossoms, which though smaller in form, resemble the purple Lilac. Those in the grounds mentioned above, are now in full bloom, and particularly sweet in untold charms for bees of almost every variety that swarm over and around the bush in the sunshine, and add to the peculiarly dreamy *dolce far niente* effect of the flowers, fragrance on the beholder by their monotonous droning and drowsy humming. We find here too, the red elderberry, a handsome shrub which has been successfully cultivated. The *Ceanothus* or California lilac has grown here into an elegant tree, and attracts attention to its soft pale blue flowers delicately fragrant as a spice breath of air from "Araby the blest."

The staunch Laurel, or *Lavrelle* as the natives called it, has grown to goodly trees around this home circle, from nuts, they tell me, that have stolen in with leaf loam. Trimmed and cultivated, they make unique and graceful ornamental trees. Oaks that have reared themselves in the same manner stand like steady friends wherever they are let; and the dear little *Manzanita*, with its pearly pendants of white delicious flowers, is as easily grown as a rose tree, if netted and cared for a little. The stately *Madrone*, whose leafage resembles the Magnolia of Georgia, is quite as beautiful as the latter under cultivation were not its blossoms so diminutive and delicate. The native White Clematis, or "Virgin's Bower," is a graceful pretty runner that attention soon fashions into an elegant climber. The pink and white Azalea requires moist soil and is worth considering, in face of the fact that it was mentioned under the name *Californica Rhododendron* for adoption as the "State flower." Native ferns and innumerable flowers, such as the Bleeding Heart (*Decentra Spectabilis*) *Cerulia Houstonia* or *Nemophila*, etc., have been gathered from their shady woodlands by the nature-loving inmates of Miller Hall, to add to the already endless "things of beauty that are a joy forever" in this perfect home and its sweet surroundings. P. S.

San Rafael, Marin Co., Cal.

## Trimming Ornamental Trees.

EDITORS PRESS:—I find such a strong feeling here in favor of cutting the lower branches of ornamental trees—even those of conifers—that I wrote to Prof. Charles S. Sargent asking his opinion. He is one of the greatest authorities upon arboriculture in the United States, being at the head of the Arnold Arboretum connected with Harvard University.

He answered: "Your inquiry about the removal of the lower branches of trees raises a question of considerable public interest, and I propose, therefore, to shorten your note a little and publish it in *Garden and Forest*, with an editorial expression of opinion on the subject which, I am sure, will have more influence than any personal expression from me. Of course you are perfectly right; there can be no more barbarous or horrible practice than cutting the lower branches of trees."

I send the editorial and will beg you to allow it space in your paper.—M. C. in Santa Barbara Press.

It should be the aim of cultivators of ornamental trees to preserve as far as possible all

their lower branches. The highest type of beauty in a lawn or park tree is that in which the lower branches repose on the ground, and which present a solid mass of foliage from top to bottom. It is not easy always to produce trees of this description, and it can only be accomplished by allowing them abundant room and air on all sides for free growth and development. Even with sufficient space about them, certain trees, like some of the pines and the sugar maple, lose their lower branches early and develop tall naked trunks. Lower branches are essential to the beauty of all coniferous trees which grow naturally with a pyramidal habit, like the firs, spruces and araucarias. Nothing is more ugly than one of these trees deprived of its lower branches growing by itself as a specimen.

Lower branches perform a valuable service to the tree, especially such trees as grow in very moist climates or in situations where they are exposed to high wind. Young trees, like firs and spruces, which grow generally on high mountains where the rainfall and wind are excessive, are provided invariably with long lower branches, which have two purposes: first, to check evaporation from the ground immediately about the stems of the trees, and then by keeping the principal weight of the branch near the base of the tree to enable it to withstand severe lateral pressure from wind. Such trees, as they grow naturally in the forest, become crowded, and the lower branches being deprived of light, cease growing and gradually die and fall off, being no longer needed for the welfare of the tree, which is protected by its neighbors from evaporation from the surface of the soil and from the sweep of the wind.

A specimen tree growing by itself with all its lower branches preserved is in very much the same condition, as far as protection is concerned, as the same tree growing in the midst of a dense forest and entirely destitute of branches for a height of perhaps 50 or 60 feet. That this is true appears from the fact that if all its neighbors are cut away from about a tree which has grown in a dense forest, it will soon perish from exposure to the sun, or will succumb to the first severe gale. It is more important to check evaporation from the surface immediately about the trunk of a tree than it is to cultivate the ground. Trees feed only through the ends of their roots, which extend laterally as far or farther from the trunk than the branches. The removal, therefore, of the lower branches of ornamental trees, especially of conifers, is a barbarous practice, which destroys their beauty and sometimes seriously threatens their existence.

## SHEEP AND WOOL.

## Sheepmen and Mountain Parks.

EDITORS PRESS:—In your issue of March 7th, under the heading "The Yosemite National Park," there appears an article signed "H.," accompanying a map of the reservation lately set apart by Congress. Familiar as I am with that wonder of wonders, the Yosemite valley, and with the grandeur of its surrounding country, I always read with pleasure any article descriptive of its beauties, and more particularly so when coming from the pen of so gifted a writer as "H.," who, when dilating upon his favorite subject, the Yosemite, can carry his reader with him to such an extent that he recoils in imagination from the precipice to which "H.," with his vivid word-painting has led him, and reading further he can readily believe that he is beneath the waving boughs of the mighty sequoia and the perfumed scent of the pine is in the air. I have, therefore, no criticisms to make upon his poems in prose; no fault to find with his vivid and realistic word-painting; no complaint to make by reason of his enthusiastic plaudits over the Act of Congress in setting apart this magnificent domain as a national park; but I do, in all earnestness, object to his uncalled for criticisms and unwarranted assertions in relation to the acts of those sheep-owners who took advantage of the free pasturage offered them to drive their flocks to the mountains in the summer-time. To us (and I include myself for the reason that I was the first who was attracted in '63 to the "ancient grasses" which abounded in the mountains now included in the region set apart for a park) he applies the name of "vandals" and "despoilers," and "thanks God" and several other powers "that the bands of the despoiler and vandal are from henceforth to be legally paralyzed."

Allowing God to be the judge, I would be perfectly willing to place side by side any number of "sheepmen" who have been guilty of taking their sheep to the mountain, with an equal number of tourists and campers out for pleasure; have them hold up their hands, and ask that a special dispensation of temporary paralysis be visited upon those who have been guilty of the greatest amount of "despoliation." There is a slight inconsistency in the reasoning of "H." when he accuses the sheepmen of this wanton destruction. Would he liken them to that famous personage, so often referred to, who killed the goose that laid the golden egg? Is it likely that practical business men will burn the grass and brush which furnish the feed for their sheep? Now, isn't it very probable, "H.," that these 19 fires which you counted from your lofty view on top of the South Dome, and which, by the way, is lower



than the surrounding peaks, might possibly have been started by campers?

Have you ever heard, "H" (and I know you have had a long experience in the mountains), of campers setting fire to dead pines at night in order that they might have a glorious Fourth of July time in the midst of their wild and wild surrounding; and then have you never known of their going away in the morning leaving them burning? And then, too, have you never seen these vandalistic sheepmen work like Trojans to fight it down in order that the fire might not be destroyed?

I am inclined to believe that "H," in his earnestness to convict these "shepherders," has allowed his zeal to overcome his judgment. Possibly his vision, like the echoes of that remarkable region, repeated itself; otherwise he would have had the mountains in the immediate vicinity of the Yosemite absolutely swarming with those woolly pests, for, crediting a flock of sheep to each of his 19 fires, all to the northward, there would have been at least 38,000 sheep grazing in the forests, surrounded by fire, and leaving in their wake a "dusty" fire-swept country, where but a short time before was a beautiful "mountain garden." I say they would have been swarming because the south dome is lower than the surrounding country on all sides excepting toward the valley, and therefore "H's" view must have been somewhat limited. We are almost forced to believe that "H" must have had a "pull" at something else, other than the Anderson rope, before he could have arrived at such a kaleidoscopic conclusion.

As a matter of fact, and no doubt "H" will hold up his hands in holy horror at the statement, sheep prevent the spread of forest fires by thinning out the undergrowth and by the making of trails, which always assist in preventing the spread of fire. I believe that the Government should continue to allow the sheep to be driven to the mountains in the summer for the purpose of allowing an industry to continue to thrive which has always had access to the feed and which may be seriously jeopardized by the deprivation of it, and also to keep down the undergrowth which, once having caught fire, will endanger a whole forest. There is no doubt, however, that the Government should closely watch the campers and compel them to cease setting dead pines on fire for their own amusement, and who carelessly leave their campfires burning when they break camp.

As for our being "vandals"—God save the mark—what have we done to warrant such a term being applied to us? Have we destroyed any works of art or literature? Have our woolly pests trampled into the "dust" any masterpiece of some famous artist? Have we torn a leaf from any work of prose or poetry to start a devastating, forest-consuming fire? Even "H" would acquit us of such a charge. There only remains, therefore, according to the definition of vandal, that we are ignorant, ferocious, rude or barbarous.

My camp was on the trail to the Yosemite, in early days, and but a few miles from there. It was a convenient stopping-place for parties on their way to and from the valley; the lath-string was always out, and everybody was welcome to what there was in the larder. Nor was it my custom to charge a dollar a meal and fill them up with an eloquent dissertation on the unapproachable sublimity of the Yosemite. So it was with every sheep camp. Travelers were always welcome. Therefore, I believe that we can demand a verdict of acquittal as to the charge of being ferocious, rude or barbarous. I grant we may be. We are practical men. We were looking for sheep feed and we found it. We did not have time to lie in the shade of a lofty pine listening to the soft sighing of the wind through the branches of the trees, to the distant roar of the mountain torrent, and anon to the echoes of the crashing, booming waterfall as it leaped and tumbled over some mighty precipice, carrying with it tons of ice, and then with "eyes in fine frenzy rolling," indite a poem descriptive of all these wonders, and have our minds brought back to this lowly sphere by the discordant sounds of a sheep bell, or perhaps by the aroma from a passing flock.

Sheep men and artists, poets, and the like, have probably a different idea of the beauties of nature. Sheep men, upon discovering a mountain meadow enclosed by lofty peaks and precipices, might turn their sheep in on the grass, and build a brush fence across each end of the meadow. An artist, a man fitted by nature to guard the beauties of such a spot, and keep untarnished this jewel in nature's crown, would, if we may judge from the Yosemite, immediately fence it in with wire fences, plow up the natural grass, sow it with grain, raise hay and sell it to the campers at \$40 a ton; chop down the trees for cord-wood and place flaming notices upon the trees in various places that no camper would be allowed to graze his horses, except in a certain limited space, and that no shooting would be allowed. The beauties of nature would in this way be fully protected, but the sheep man, unappreciative creature, despoiler of nature's charms, destroyer of forests, vandal, and all that is bad, would spoil all, if he were allowed to even approach it.

H. J. OSTRANDER.

Merced, March 16th

RACING AT SAN JOSE.—The spring meeting of the San Jose Blood-Horse Association will be held April 4th, 7th and 9th, 1891, at Agricultural Park, San Jose. A very attractive program will be presented.

## THE VINEYARD.

### Census Report on Viticulture in California.

The Census Bureau has issued a bulletin on the subject of grape culture in the United States. A table gives in detail by States the development of this industry, and the figures show that California has more acreage in grapes than all the others combined.

The following are the statistics of that State for the year: Area in bearing vines, 155,272 acres; area in non-bearing vines, 45,272 acres; average yield of grapes per acre, 17 tons; market value per ton, \$1766; sold for table use, 38,785 tons; sold to wineries, 235,526 tons.

Wine made, 14,626,000 gallons; raisins produced, 1,372,195 boxes; value of plants, including land, \$86,640,350; persons employed, 100,422. Of California the bulletin says: There are 53 counties in California, nearly all producing grapes in greater or less degree, the larger proportion producing wine for home consumption or export. There is an established demand for this wine to the amount of 1,000,000 gallons per month from this country alone, making 12,000,000 gallons annually, an exportation to foreign countries of \$11,922 gallons being made in 1889, valued at \$217,093.

California may be divided into three grape-growing districts, the coast district, the Sierra Nevada foothills and Sacramento valley district, and the southern district. In the first district the finer grades of white and red dry wines are made, and the choice varieties of French and German types seem to come nearer to reproducing themselves here than elsewhere.

In this district are successfully grown the finest varieties of French champagne grapes, which yield a handsome profit to the producers. There is one cellar in this district with a capacity of 800,000 bottles, producing champagne by natural fermentation in bottle. The champagne industry in California is a growing one, and its future is bright with promise. White wine is the leading viticultural product, and fine table grapes are also produced in this district.

Some good white and some dry wines are produced in the second district, but they are in different character from the German and French types of grapes for table use, and raisins are extensively grown, a large portion of the new planting being for raisins. In the Sacramento and San Joaquin valleys and in the southern district the same excellent dry wines are produced, but these valleys excel in their port, muscatel, angelica and other heavy sweet wines. In Napa county there are 20,763 acres.

Phylloxera has destroyed many acres of vines in this county, but the acreage has been kept up to about the same point by replanting on resistant stock and planting new vineyards farther up on the foothills, where a choice variety of grapes is grown and phylloxera is not such a scourge. There are 142 wine-cellars in Napa county; many of them are modern constructions, containing all the appliances for the manufacture and handling of wines. There were 3,000,000 gallons of wine made in this county in the census year 1889.

Sonoma county.—This district in 1889 had 21,683 acres in bearing vineyards, and the same conditions exist here relative to the quality of grapes and wines produced as in Napa. The ravages of phylloxera were felt in Sonoma at an earlier day than in Napa, appearing about 1874, and a great many vineyards were destroyed. It is now generally believed that the destruction caused by phylloxera can be stayed by growing native resistant stock and grafting upon that the foreign vinifera. In Sonoma county in 1889 there were produced about 1,756,300 gallons of wine and 250,000 gallons of brandy. The quality of dry white wines was marked.

Santa Clara county.—This district contains some 12,500 acres of bearing vineyards, and should enjoy a reputation for fine white and red wines equal to Sonoma and Napa. This and Santa Cruz county in 1889 produced 2,544,000 gallons of wine. As yet phylloxera has troubled the vineyards but little in comparison with the counties before mentioned. There is said to be a deep gravelly bed underlying this whole surface, in which the growers say the phylloxera does not work with success.

Alameda county, in the first district, has 6500 acres in bearing vines, and produces a type of wine resembling the white and red wines of France, and in the part of the district known as the Livermore district a high grade of Sauterne and claret is produced. The geological formation of the valleys and slopes of the Mount Diablo range more nearly reproduce the soil conditions that characterize the department of Gironde in France than any other section on the coast. In this district there were produced in 1889 some 60,000 gallons of wine, noted more for its quality than for the quantity produced. This is comparatively a new wine district and has grown up within the last decade. The first systematic planting of high grade grapes began in 1882.

There is in the second district a great viticultural interest, embracing the table grapes, raisins, sweet and dry wines and brandies, excelling in the latter. Sacramento, Placer, El Dorado, Tehama, Yuba, Butte and Yolo produce large quantities of table grapes, and quite a large quantity of raisins is shipped from some of these counties. Tehama has the largest vineyard in the world, 3800 acres, to which the

manager says 1000 acres of new vines are to be added within a year. There were in the distillery on this vineyard in April, 1890, which was visited by the special agent of the Census Office, 300,000 gallons of brandy and 1,700,000 gallons of wine.

Another large vineyard, the second largest in the State, contains 1500 acres, and is situated at Folsom. The Sacramento winery belonging to the vineyard has a capacity of 600,000 gallons. Many table grapes are shipped from this vineyard to Eastern markets, and sales in this direction have largely increased during the past two seasons.

The third district is composed of San Joaquin, Merced, Fresno, Tulare, Kern, Ventura, Santa Barbara, Los Angeles, San Bernardino, Orange and San Diego counties. Near Stockton, in San Joaquin county, is located one of the largest vineyards and wineries. Fine brandies are made in this district; also sherry, ports and some excellent clarets. Fresno county contains at this time some 25,000 acres in bearing vines and 15,000 acres in new plantings, the larger portion of which is grown for raisins. There are, however, a great many gallons of wine and brandy made in this county. The wines are mostly sweet and of excellent quality.

The raisin pack in 1890 was 626,595 boxes, and the wine produced 1,200,000 gallons. The soil seems to impart a vigor to the vines that is unknown elsewhere in the world. The second crop is often very nearly equal to the first, and the third comes before the leaves fall off. More than half the raisin grapes grown in California are produced in Fresno county. San Bernardino county, in this district, is also principally devoted to growing raisin grapes. There are 9562 acres bearing and 4125 non-bearing.

The raisin pack for 1890 amounted to 375,000 boxes. Two wineries in San Bernardino county produced 279,000 gallons of wine in 1889. There were also shipped from this district 1700 tons of table grapes. Los Angeles county has 18,120 acres in bearing vines. A new and mysterious disease attacked the vines in the southern portion of this district about 1885 and ruined more than half the acreage. Every effort has been made to discover the cause and remedy the evil. The most expert scientists have been consulted by the State Board of Viticulture in California, and the Department of Agriculture has appointed an expert to investigate and report upon the matter.

There were produced in 1889 in Los Angeles county 25,820 tons of 511,640,000 pounds of grapes for wine, and 1000 tons or 2,000,000 pounds for table purposes. The wines in this county are justly celebrated and were the first shipped from California to the Eastern markets. This county excels in its sherrys, ports and brandies. There were 20,000 boxes of raisins packed in 1889, the new disease having reduced the product about one-half. The product of Orange county, lately formed from portions of Los Angeles county, is included in the above figures.

In San Diego county there is an acreage of 6000 bearing, and 7500 non-bearing vines. Of the latter 6000 were just coming into bearing in 1889 and did not add much to the product. While this shows a fair increase in the growth of the industry during the last four years, the increase is accounted for by the fact that a new disease that was so injurious in Los Angeles did not affect San Diego county. It is in El Cajon Valley of San Diego county that the most progress has been made in viticulture. There are 27,000 acres adapted to fruit-growing and 3000 acres bearing raisins in the vineyards in El Cajon.

The raisins from this valley are among the finest produced in California. The product of the El Cajon valley in 1889 was 75,000 boxes; in the balance of San Diego county the pack was 75,000 boxes, and in all, 150,000 boxes. Another successful branch of viticulture in this district, is in the shipment of table grapes to the Eastern markets. Many of the elevated localities are so free from frost that grapes can be left on the vines until January. As it has been noted in this bulletin that California has the largest vineyard in the world, it may be well to state that she has also the smallest.

It is a vineyard consisting of a single vine in Santa Barbara county. It was planted by a Mexican woman about sixty-eight years ago and has a diameter, one foot from the ground, of twelve inches, its branches covering an area of 12,000 feet and producing annually from 10,000 to 12,000 pounds of grapes of the Mission variety, many bunches weighing six and seven pounds, the crop being generally made into wine. The old lady who planted this one-vine vineyard died in 1865 at the age of 107. Viticulture is already a great industry in the Pacific division, and promises to become still greater in the near future.

The total area and production of the vineyards of the United States during the year 1889 are given as follows:

Area in bearing vines, acres.	Average yield of grapes per acre, tons.	Market value of grapes per ton.
Arizona.....	1,000	300
California.....	155,752	177
Georgia.....	1,938	133
Illinois.....	3,750	200
Indiana.....	3,542	175
Kansas.....	10,000	200
Missouri.....	1,186	300
New Mexico.....	43,350	175
New York.....	4,000	175
North Carolina.....	28,075	180
Ohio.....	1,500	250
Tennessee.....	4,100	200
Virginia.....	45,000	200
Other States and Territories.....	45,000	200

## PUBLIC AFFAIRS.

### California School Lands.

EDITORS PRESS:—It seems that the State has various tracts of school lands for sale; is there no law or authority for advertising them, giving the location, description section, township, etc. As it is now, if a person desires to purchase a tract of school land, he is compelled to pay some land shark or land attorney a high price just to tell him where such land is located, which information he has secured from the State land office. I am informed that land companies send parties out to survey, photograph and locate the more choice tracts of land, and then hold the land for high commission for the information secured. I suppose they have the right to do this, but it seems that the State might spend some of the tax payers' money in giving notice to the public where these lands are located, as well as to appropriate money for portraits, of each succeeding Governor of this State, that the masses of the people never see and have no use for.

San Jose.

EDITORS PRESS:—There is no law authorizing the advertising of school lands. Each and every citizen of the State can get as full and complete information at the land or surveyor's office, Sacramento, regarding the lands, as is possessed by the officials in charge. Locations and surveys, together with field notes, can be had of lands which are not sold or filed on; but even with this knowledge, unless the would-be purchaser goes in person or sends a responsible agent to examine the land, he takes great chances in getting that which is not to his liking. Of necessity, to obtain personal knowledge or information through a trusted agent takes time and costs money. Aside from this, while securing or waiting for desired knowledge regarding the land, it is liable to be filed on by another person. It is the cost of getting this information, through trusted agents, that we are informed school land agents charge to purchasers, when either locating or selling them school lands.

The writer's canvass among those who have sold, and also those who have bought school lands, has resulted in giving him much valuable information, which briefly stated is as follows: The school lands were set apart by the United States to the State, for the benefit of the public schools, the proceeds received from their sale by the State going to the school fund. They comprise the 16th and 36th sections of each township, or the lands selected by the State in lieu. These lands are sold in tracts of from 40 to 640 acres. Residence on, or improvement of, the land is not necessarily required. The title to school lands comes from the State direct to the purchaser, and is based on patent to the State from the United States. The terms of payment are much easier than on any other cheap lands offered.

The school lands are well culled, yet it is said that in some of the northern counties good sections of rolling and plateau lands can be found, and as the localities are settled up, better railroad and shipping facilities are among the possibilities within the next five years. It is said that some prairie lands are offered in the southern part of the State. These lands have heretofore been classed as arid, but under our irrigation system and developments made in the various counties where located, they have fully demonstrated their productiveness. Railroad construction is very active in this part of the State. In the coast and central counties, it is said that there are to be had some choice hill and mountain lands. Many of the most flourishing and best paying hill or mountain orchards were at one time uninviting chaparral-covered lands.

Aside from farming lands there are timber lands, for which, owing to their growing scarcity, there is an increasing inquiry. This demand is probably intensified by reason of the last Congress passing a law withdrawing Government timber land from market.

In connection with the above, the following from ex Governor R. W. Waterman's message to the 28th Legislature of this State is of interest: "While California has been selling her school lands at an absurdly low price, Michigan has been realizing over \$5 per acre; Indiana, about \$4 per acre; Illinois, about \$4 per acre; Ohio, over \$5 50 per acre; Colorado, from \$3 to \$50 per acre; Nebraska, not less than \$7 per acre, for land obtained under the same grant, while in Minnesota \$5 per acre is the minimum price, and she has sold 1,000,000 acres of her school lands at an average of \$6 per acre. In Kansas, school lands are sold after appraisalment, the minimum price being \$3 per acre.

"Immigration is large, lands are rapidly increasing in value, and Section 3494 of the Political Code should be so amended that our remaining school lands be sold for a price commensurate with their value, made subservient to the purpose for which they were donated, and legislation enacted from the standpoint of finance—revenue being the sole object."

J. R. F.

FOR PAINTING WALLS OR OTHER OBJECTS EXPOSED TO DAMP.—A composition of very fine iron filings and linseed oil varnish is said to be much used in Germany; and, when the object to be painted is to undergo frequent changes of temperature, linseed oil and amber varnish are added to the first two coats. This paint may be applied to wood, stone or iron; in the case of the latter, it is not necessary to free it first from rust or oily matters.



## PATRONS OF HUSBANDRY.

In our Rural Press Official Grange Edition, issued every week, will be found additional matter from this and other jurisdictions, of interest and importance to Patrons. Any subscriber who wishes can change free to that edition.

## The Master's Desk.

R. W. DAVIS, W. M. S. G. OF CALIFORNIA.

There are some things we should have constantly with us through life. Old end young, high and low, rich and poor, male and female, each one should always be polite. Politeness costs but little. You can afford to be polite to a scamp. He may not know any better, but you should. He may not appreciate the duty owing to fellow-beings, but you should fully appreciate your station and rank in life. Be polite when others are hoarse; be courteous to strangers; be obliging to old end young, and you will have friends in all the days that are to come. Politeness wins when other more pretentious virtues fail.

As I write, the cheerful, happy innocent children are busy with their play, just underneath my window. Their joy, mingled with the bright sunshine, the fragrant flowers and the opening buds, makes the heart glad, and renews the ambition, which each one of us should have, to do something, and to be something, that will bring joy to the home end happiness to mankind. How much of such labor there is for us to do? Are you willing to perform your part?

Are you a boys' man? That is, are you such a man as the boys like? If you are, it is safe to say you are not a crank, not sour, not dyspeptic, not boorish, not selfish, not arrogant, not self-opinionated, not egotistic, not cheeky. Don't you know that children know whom their friends are? They don't select cranky, grown-up people for friends. If you are a boys' man or a girls' woman, it is safe betting you have hosts of friends, both old end young, and the writer is one of them.

You know that no trees bear fruit in summer that do not blossom in spring. No Grange will report a big harvest this Fall, when we meet at Haywards, unless that Grange does some good, sensible, hard work right now. This is the Spring. Soon the Harvest will be upon us. Which Grange in California will report the greatest number initiated during the year?

There is not much doubt but the coming session of the State Grange will be largely attended. Several new features may be expected; the election of officers, the attraction of Haywards, the reunion of friends and many other things insure a good attendance.

The G. A. R. celebrate their 25th anniversary, April 6th, 1891. The P. of H. will celebrate their 25th anniversary very soon. Both of these organizations have done much good to their respective membership.

The silent, honest vote of the farm is having a wondrous effect in the halls of many of our sister State Legislatures. Before two years shall have passed, this same vote will be felt in California. Men have made written and oral promises to get votes, and then after election, violate those promises. But when the next election comes, the people will say "Depart from our presence ye evil doers; we want officers who have convictions and the courage of those convictions. You have been unfaithful once; we will never trust you again," which is to teach us, keep the eye of the mind on the record of some of those "Honorable" now at our State Capitol, for they may want your vote some day.

Read a few lines at each of your meetings, from the Journal of Proceedings of the State or National Grange. There is much valuable information to be had by so doing.

If your Grange wants to have a "big time," and will arrange to get the farmers and their families to attend that meeting, the State Grange will be pleased to send you a Speaker. Name the person you want, and assure to give the Master plenty of time, and, if possible, that particular person will be sent to you. If he can't go, some one else will be detailed. In asking for Speakers, please name a first and a second choice. The Executive Committee is anxious to do all possible for the Good of the Order. We have Speakers and the money necessary to pay their expenses, but want to utilize both to the best possible advantage. So call for workers if it is for the Good of the Order.

Thanks for copies of Journal of Proceedings of Maine and Vermont State Granges—much valuable reading in each. The W. M. of Maine State Grange is the "prince" of good fellows, end Bro. Messer of Vermont is as sweet as his maple sugar.

Grumbling don't help you any. The grumbler is like unto a tree that has two long, dead branches. Each may attract attention, but neither has friends. Each may have started well in life, but neither has made a success of it. Each is a hiding-place for hooters; one shelters grumbling men and the other is a home for hooting owls. Perhaps each fills a necessary

station in the world's menagerie. But for my part, I prefer the man who sees some good in his fellow-men, and the tree that has plenty of green foliage, where birds may sing end nest, and where life and happiness may find a lodgment. Don't grumble too much! Your station in life might be worse than it is. Better join the Grange, end thus enjoy the sunshine, the life, the joy, the happiness, of the bird in the growing, green-leaved tree, and of a useful man among a thrifty, honest, persevering people.

There are few men in the United States today who command more attention than ex-Senator John J. Ingalls of Kansas. It is not generally known that the ex-Senator is both a poetical and a prose writer of the highest order. Most people know of Mr. Ingalls only as a politician. The following choice gem is from his pen. It was written some years since, and as this is the season of the year when our hills, valleys, dells and slopes are covered with Nature's carpet, it seems proper, appropriate and useful to refresh our readers with the reprint of the sublime words of John J. Ingalls on the subject of

## Grass.

Next in importance to the divine profusion of water, light and air, those three physical facts which render existence possible, may be reckoned the universal beneficence of grass. Lying in the sunshine, among hutterups and dandelions of May, scarcely higher in intelligence than minute tenants of that mimic wilderness, our earliest recollections are of grass; and when the fitful fever is ended, and the foolish wrangle of the market and the forum is closed, grass heals over the scar which our descent into the bosom of the earth made, end the carpet of the infant becomes the blanket of the dead.

Grass is the forgiveness of Nature—her constant benediction. Fields trampled with battle, saturated with blood, torn with the ruts of cannon, grow green again with grass, end carnage is forgotten. Streets abandoned by traffic become grass-grown, like rural lanes, end are obliterated. Forests decay, harvests perish, flowers vanish, but grass is immortal. Beleaguered by the sullen hosts of winter, it withdraws into the impregnable fortress of its subterranean vitality, and emerges upon the solicitation of spring. Sown by the winds, by wandering birds, propagated by the subtle horticulture of the elements, which are its ministers and servants, it softens the rude outlines of the world. It evades the solitudes of deserts, climbs the inaccessible slopes and pinnacles of mountains, modifies the history, obfuscates end destiny of nations. Unobtrusive and patient, it has immortal vigor and aggression. Banished from the thoroughfare and field, it bides its time to return, and when vigilance is relaxed, or the dynasty has perished, it silently resumes the throne from which it has been expelled, but which it never abdicates. It bears no blazonry of bloom to charm the senses with fragrance or splendor, but its homely hue is more ennobling than the lily or the rose. It yields no fruit in earth or air, yet should its harvest fall for a single year, famine would depopulate the world.

## Attend Your Grange.

An important circular has been sent out by the Executive Committee during the past week, to be read in each Grange, which every member should have the benefit of. It explains the Trade-Card system of co-operative buying now being adopted for the benefit of Patrons of this State (end any other should they wish to embrace the opportunity offered California Patrons). Samples of Trade Cards have been mailed each Grange. All Deputies should pay particular attention to this matter. If any further information is wanted, address the Master or Secretary of the State Grange.

## To State and County Deputies.

Deputies are recommended to post themselves on the trade card system, end visit every Grange in their jurisdiction, counselling with and giving information to members as to the means for securing the greatest amount of benefit they can derive from the same. No matter what trading facilities may be offered through other associations, there are few if any farmers who cannot save many times the cost of their annual dues by the additional business privilege available through membership in the Grange.

TEMESCAL GRANGE had a good meeting on Saturday, the 21st. Sister Paine read an excellent and interesting paper on Sanitation and Sanitary influence and conditions surrounding farmhouses and farm life. Some discussion followed on the best methods of securing perfect sewerage and drainage.

The invitation of the President of the Alameda Co. F. A. and I. U. to the Granges of Alameda Co., to send delegates to a meeting to be held at Pleasanton on Saturday, April 4th, at 1 P. M. for the purpose of forming a County Farmers' Institute was considered, and the following were appointed such delegation, namely: Bro. A. T. Dewey, Bro. Walter Renwick and Sister Renwick.

WOODBRIDGE GRANGE will confer third and fourth degrees at a meeting to be held on April 7th, at 10 o'clock, with Harvest Feast. All Patrons that can attend are invited to be with us, as an enjoyable meeting is anticipated.

## Government Ownership of Railroads.

EDITORS PRESS:—In your issue of Feb. 28th there appears a thoughtful article over the signature of W. H. Aiken of Santa Cruz. There is certainly no radical difference between us on the subject of government ownership of railroads. The difference appears to be only in methods end matters of detail. One pertinent inquiry of Mr. Aiken is:

"Why not seek to influence the Government directly to build end equip a road, a highway for the people, without referring in any way to a former effort of the Government to aid others in building the Union and Central Pacific?"

Manifestly the Government will have to take the very course here suggested by Mr. Aiken in the greater portion of the work in providing itself with

## Transportation Facilities

Sufficient to regulate and control the carrying trade.

"No action of Congress can impair or in any way alter the contracts between the Government end the aided railroads."

As a principle of law, Mr. Aiken is certainly correct in this declaration; but when one party to a contract willfully violates its provisions, it is no longer valid or binding if the injured party feels disposed to annul it; end if the report of the Interstate Railroad Commission, made to Congress in 1887, after a thorough investigation of all the facts in the case, can be relied on, the Central and Union Pacific Railroad Companies have violated every vital provision of their contract with Congress; consequently the contract becomes

## No Binding Force on the Government.

Hence said roads can legally be thrown into a receiver's hands at the option of Congress, at any time.

"There are facts in the case that confront the Government in considering the subject of a settlement as to the amount justly due end the extension of the time of payment, such as:

"1st. There is a first mortgage of about \$60,000 per mile that might be paid upon the foreclosure of the second mortgage held by the Government upon the railroad from Omaha to Sacramento.

"2d. That the mortgaged property is not worth the amount due on the first mortgage, because a new road could be made for less money, either by the Government or by private enterprise.

"3d. When the Government surrendered its security on the property and permitted a first mortgage of all the railroad was worth, it was left practically unsecured."

Mr. Aiken is mistaken as to the amount of the first mortgage bonds. Those held against the Union Pacific and Kansas branch amount to \$33,532,000, and against the Central and Western Pacific to \$27,855,680, aggregating \$61,387,680. The number of miles of railroad held liable to the Government for its loan, and for these \$61,387,680 of first mortgage bonds, is: Central Pacific, from Ogden to Sacramento, 737.50; Western Pacific, from Sacramento to San Jose, 123.18; Union Pacific, from Ogden to Omaha, 1035; Kansas Pacific, from Kansas City westward, 333.94, aggregating 2229.62 miles.

Now, dividing \$61,387,680 by 2229.62 miles of railroad gives us the rate of

\$17,532.80 Per Mile.

First mortgage bonds, instead of \$60,000 per mile, as stated by Mr. Aiken.

The estimated value of the Union Pacific and Kansas branch by said Interstate Railroad Commission in 1887 was \$50,757,173; that of the Central and Western Pacific, \$49,331,003, which added together aggregate \$100,088,176. Deducting the amount of the first mortgage bonds, \$61,387,680, we have a remainder of \$38,700,496, valid security for the Government loan to said railroads, which amount is certainly worthy of an effort on the part of the Government to obtain before it entirely disappears, as has the greater portion of the \$447,729,470 given by the Government, counties and cities in bonds, money and lands to aid in the construction of these roads, which actually cost, completed and equipped, only \$96,000,000.

"In view of these facts, does Mr. Webster advise no settlement, and the payment by the Government of the first mortgage bonds for an old railroad, a streak of rust, from Omaha to Sacramento?"

In answer to this interrogative, I will say that I would advise no settlement with these companies providing for

## An Extension of Time

For the payment of their indebtedness to the Government, for we believe, as Governor Patton's report (to which reference has been made) declares that "extension of time for payment, therefore, means in reality an increase in the amount of the debt, and the making of its recovery the more hopeless."

As to the railroad simply being "a streak of rust from Omaha to Sacramento," we have already shown that the most competent authority declares that said bonded roads are worth \$38,700,496 in excess of the value of the first mortgage bonds. I would, therefore, favor the paying off of the first mortgage bonds and taking charge of the roads by the Government as a nucleus, and I further advocate the

Condemnation of Some Line of Railroad Or the construction of a new one from Omaha to New York, and the further condemnation or construction of a more northern route, and one

further south, from the Atlantic to the Pacific oceans—all such construction to be done by contract in sections not to exceed 10 miles in extent—grading, tie-furnishing, end rail-laying to be let in separate contracts, to the end that the citizens along the line of the several sections may be competent and able to contract for such work; thereby securing the distribution of Government money where it is more needed.

I am further in favor of the Government issuing legal-tender notes sufficient to pay for all this work and for the proper equipment of said roads, thereby increasing the volume of currency where it will do the most good.

Three such trunk lines of railroad from the Atlantic to the Pacific, in the hands of the Government, will regulate the carrying trade of the United States, compelling other roads to adopt substantially the same rates as the Government lines or become simply feeders to the people's system. It would probably require the issuance of \$500,000,000 of such legal-tender notes to fully complete the work, all of which is at present greatly needed for actual use. Such legal-tender issue should be redeemable in coin of the United States, or convertible into two per cent bonds, at the option of the Government.

This plan is feasible and practical, without any question of doubt, which in conjunction with a

## Postal Telegraph System,

Acquired in the same way, will relieve the whole nation of its greatest embarrassments end place the worst forms of corporate power under government control. Some relief must be had from the dominant influence of these corporations and other immense concentrations of wealth; otherwise the 30,000 men who now own one-half the wealth of the nation will have another quarter thereof very soon. Then, or even before that time, will come chaos, and the millionaire will realize that he is weaker and more defenseless than the poorest tramp on the streets.

J. V. WEBSTER.

## From Traveling Deputy Logan.

EDITORS PRESS:—I have just returned from a visit to Galt and Elk Grove, about 25 end 15 miles, respectively, south of this city. At the elegant home of Bro. Thomas McConnell, some three miles south of Elk Grove, I was hospitably entertained on two evenings. This homestead consists of 1500 acres of the choicest land in the great Sacramento valley, being one of the pioneer locations of the State. Mr. McConnell came into possession of the property in the early "fifties" with a number of its first-class improvements on the place, so that together with the adornments and attractions which his good taste, skill and industry have since added, it may be classed with the model rural homes of California. Besides the bestowment of liberal attention to the improvement of every species of domestic live-stock, to Mr. McConnell belongs the distinction of being the pioneer importer of thoroughbred American merino sheep, at a cost of nearly \$300 per head.

## Elk Grove Grange

Is classed among the live Granges of the State. It has a membership of 70 odd, who vie with each other in fulfilling the obligations of true Patrons. A portion of my first day's visit was spent in driving around the Elk Grove settlement in company with Mr. McConnell, by means of which I formed some pleasant acquaintances and increased my information on the resources of the soil. Among others we called upon was Mr. Geo. H. Kerr, one of the cornerstones of Elk Grove Grange, and President of Elk Grove Farmers' Alliance. He has a large fruit orchard, besides 50 acres in vines, making most of his grapes into a superior article of raisins—his maxim being "quality rather than quantity."

In pursuance of the suggestion of Worthy Master Davis of the State Grange, Mr. McConnell and I drove to Galt to learn of the advisability of reorganizing Galt Grange. We consulted with a number of the most intelligent farmers and formerly most active members, and found the following impediments in the way: There are at present lodges of Masons, Odd Fellows, A. O. U. W., Chosen Friends, Good Templars, Golden Shore, Rescue I. O. O. F., Encampment I. O. O. F., Iron Hall, K. of P., Uniform Rank K. of P., the Y. M. I., besides four churches, a dancing club, a whist club and several sewing circles, and Farmers' sub-Alliances, all around the village, which, with all the surrounding neighborhood tributary to it, does not contain a population of over 500 souls. With the above facts before us we can easily realize the truth of the assertion made to us in reply to our appeal in behalf of the Grange—"we are already Lodge poor and our time is fully occupied."

While it would seem to us as clearly the part of wisdom for the people of Galt to drop at least one-half of the above societies and unite with and sustain organizations of unquestionable utility like the Grange; to be practical, we were compelled to deal with the situation as we found it. Finding no one sanguine of successfully maintaining the organization should we have effected it, no one with courageous determination to lead the hosts in the struggle for right, justice, liberty and on to final victory, we reluctantly retraced our steps. I am now en route to Yolo county, and will keep you advised of my movements and prospects in the furtherance of the cause of the Patrons of Husbandry.

F. B. L.

Sacramento, March 19, 1891.



### Prison Grain Bags.

As harvest approaches, interest quickens in the available supply of bags from the prison factory. The regulation of the sale of these bags has received much attention this winter from farmers in the grain regions, as has been shown in our columns. By special effort Senator Ostrom's bill has passed both houses, and because of the importance of the subject, we give its full text as follows:

SECTION 1. It shall be the duty of the State Board of Prison Directors, from time to time, to fix the price at which jute goods shall be sold by the State, but at no time shall the price be fixed be more than one cent per bag in excess of the net cost of producing the same, exclusive of prison labor; and it is made the duty of State Prison authorities to confine the sale of jute goods to consumers direct, but no order shall be filled for any one individual or firm, during any one year, for more than 5000 grain bags, except on request of the Warden, and the unanimous approval of the State Board of Prison Directors.

SEC. 2. Demands for jute goods by consumers shall be promptly filled in the order in which they are made, but when the supply is short, demands shall be registered at the prison in the order of their arrival, and filled from the output of the jute-mill in the order of registration; provided, that on and after the 15th day of June of each year, by and with the consent of a majority of the Board of Prison Directors, the Warden may fill orders for larger quantities to actual consumers, as they may, in their judgment, deem expedient; provided, that the orders of farmers and other actual consumers shall take precedence over all others; provided, that ten per cent of the purchase price shall accompany each order, and the remainder must be paid upon delivery of the goods.

SEC. 3. It shall be the duty of the Board of Directors of the State prisons to store the jute goods manufactured at the State prisons at suitable points in the agricultural portions of the State, as they may designate by resolution of the board, in such quantities and upon such terms and conditions as may be for the best interests of the State, and for the convenience of the consumers thereof.

SEC. 4. All orders for jute goods must be accompanied by an affidavit setting forth that the amount of goods contained in the order is for individual and personal use of the applicant, said affidavit to be subscribed and sworn to before some Notary Public or a Justice of the Peace residing in the township in which the applicant resides.

### Current Comment.

EDITORS PRESS:—I note an item and an article in your issue of the 28th of February which requires far more than a passing thought, the item touching as it does on the education of the rising generation, and the article by Geo. Huemann of Napa on information for statistical aid to the Department of Agriculture. The item referred to is from W. M., Davis' column, relating to the "little district school in the lane."

We boast of our educational institutions, and yet President Elliot of Harvard says, and says truly too, that our schools are cultivating memory mainly and crushing individuality entirely. Other prominent educators are reiterating the same fact. Our trade and scientific journals are all presenting the same fact, though from a different standpoint, bewailing, and justly, the fact that all the important positions in our practical arts are filled by foreigners; that our American youth is too anxious for financial results to apply himself to learning his calling thoroughly.

In short, he is averse to bringing patient thought and industry to his real advancement. The schools are not entirely to blame for this condition of things; as soon as our people really see the situation, it is to be hoped that they will require real results from our schools. I noticed, recently, a proposed course of study, issued by the State, that shows plainly that some are on the right track; that some one realizes the necessity of teaching the rising generation to see, and seeing, understand.

Mr. Huemann's article shows either a total disregard of their interests, by the agricultural class, or that they see no good in the effort he is making.

It seems to me that a knowledge of the true situation would be beneficial to every producer who was not compelled to sell.

QUID NUNC.

### What Is Wealth?

Stored labor.

Who makes the wealth?

The toilers.

Who store it?

The speculators, the manipulators. They are known as the upper ten thousand. They hold in financial bondage the lower ten millions—the toilers—together with their wives and children. Besides these two classes there is a vast army of non-producers who realize the folly of toiling for the benefit of others, and are making their living in ways often criminal and debasing, and always injurious to the best interests of society. B. O. BROWN.

Glenwood, Santa Cruz Co.

## FARMERS' ALLIANCE.

SUBSCRIBERS wishing fuller information of the Alliance can have their names changed to the Grange Edition of the RURAL PRESS free, much to their advantage, this department being continued in the same.

### A Little Plain Talk.

[By J. L. GILBERT, Lecturer Cal. F. A. & I. U.]

It is said that our last Congress appropriated for various purposes \$1,081,279,471.92 of the people's money—an amount greatly in excess of the entire National debt.

Probably less than one-fourth of this sum will be used for the relief of the people and in the interest of good government, while the remaining three-fourths will go to reward hoodlums and political tricksters and to grease the wheels of the great machine that is used in the manufacture of millionaires.

All this while the great masses are groaning under the burden of taxation, and hundreds of thousands of our people are suffering for bread to eat and raiment to put on.

No wonder that Americans are truly a patriotic people. No wonder that our virtuous and

their work, and that their deeds are recorded in letters that cannot be effaced, to be passed upon by a tribunal higher, and we hope purer than any American politician of to-day.

You will find that they are aware that the "tariff issue is not a national issue, nor even a local issue, but a class issue, against which an intelligent community will revolt; that they favor no North, no South, no East, and no West, but our one great, common country; that they will favor platforms and parties and laws that are built, not particularly in the interest of the poor man, or the rich man or the middle man; not for the advancement of the red man or the white man, or the black man, but for the greatest interest and the most rapid advancement of man, of God's great humanity, and we here declare that no earthly motive, no lofty summit of human ambition, no proud pinnacle of human power, no loud acclaims of the multitude shall ever seduce us from the God-given sentiment of our great Alliance heart in favor of equal rights for all and special privileges to none.

Who is prepared to say that in making our demands we prostitute the ends of political economy or do violence to the moral law?

We make war on no landable or useful enter-

### Secretary Charles W. Pedlar.

In preceding numbers of the RURAL PRESS we presented photo-fac-simile engravings, with brief life sketches, of President Cannon, pioneer Organizer Barbee, and members of the Executive Committee. Without following any set order of rank, other officers in due course of time will be introduced to the Order at large through the columns of the State organ. We feel confident that in doing this it will prove a benefit in making the rank and file of the Alliance more acquainted with the men who lead in the cause. It will also tend to increase personal confidence, an essential element of strength and harmony in all associations.

In this number we take pleasure in presenting an engraving and also life sketch of Bro. C. W. Pedlar, Secretary of the State F. A. & I. U. of California, one of the most genial and faithful of Alliance workers.

Bro. Pedlar was born in Wisconsin in 1841. He, with his parents, "crossed the plains" in 1852. His boyhood days after arrival were spent on a farm in Yolo county. In his early manhood he learned the carpenter trade and located at San Jose in 1866. In 1872 he moved to Gilroy, where he has since resided, working at his trade. For many years he has taken a prominent part in temperance reform, which gave him a wide circle of acquaintances throughout the State. His wife died 16 years ago. He has two grown up children a son and daughter. The latter is a teacher in the public schools.

Bro. Pedlar has been one of the hardest worked officers in the Alliance since the State organization was formed. His compensation has necessarily been small, but he has worked as faithfully as possible and we believe succeeded well in keeping the rush of business in his department in good system and fairly up to date.

### Gleanings from the Field.

The organization of Congressional District Alliances all over the country is being pushed vigorously. In this form of organization a means is made available for practical effort in securing the demands of the Order through national legislation.—*National Economist*.

As soon as our State is thoroughly organized, the district organizations will be heard from in California.

The *Farmers' Union* (Memphis, Mo.) says: "The Missouri Legislature have indorsed the Ocala platform with the exception of the sub-treasury clause and the clause relating to Government control of railroads. The Legislature might as well have denounced the entire platform." The above holds good everywhere. The two old parties are willing to concede to such demands as can be manipulated to seem one thing and mean another. But when it comes to a frank, open reform measure that can only be used for one purpose, and that one a source of benefit to labor in production, the result is the same as that shown by the Missouri Legislature. The next Legislature in that State will pass a different resolution, without doubt, as the Alliance is about done with such treatment.—*National Economist*.

"We must educate or we must perish."—*Patrick Henry*.

According to the census of 1880, we had over 50,000,000 people in the United States, and \$43,642,000,000 in property—more than enough to count \$800 to every individual, or \$5000 to a family.—*Garden City Alliance*.

It behooves the wealth-producers of the U. S. to diligently inquire into the cause of our present unequal and unjust distribution of wealth, and if there is a remedy (and there is), apply it. Fellow-laborers, organize!

In 1850 [the farmer] owned 70 per cent of the property of the United States; in 1880, 33 per cent; and it is almost certain that the census of 1890 will reduce that to 15 or 20 per cent, and the people wonder at the general dissatisfaction and restlessness of labor while the country is so prosperous!—*Garden City Alliance*.

Salmon P. Chase, before his death, confessed that the scheme to establish the National banks was the greatest blunder of his life. G.

AMADOR COUNTY.—Three branch organizations of the Farmers' Alliance have been effected in Amador county: Julian District—Henry M. Northup, President; Miss Lucretia Swift, Secretary. Shenandoah Valley—S. C. Wheeler, President; J. H. Phillips, Secretary. Union District—A. B. McDonald, President; E. Merkel, Secretary.

D. J. COLE of Kansas, a National Organizer, has organized an Alliance at Jordan, Linn county, Oregon, with Jacob Huher President and Frank Thayer, Secretary. There were 50 charter members.

THE farmers are organizing Alliances among themselves in this county. Prof. M. V. Rusk and W. Sample have organized six Alliances in Umatilla county, Oregon.—*Salem (Marion Co., Oregon) Journal*.

An organization of the Farmers' Alliance at Jefferson, Linn county, Oregon, has been perfected, with Charles Miller, President, Archie Libby, Secretary.

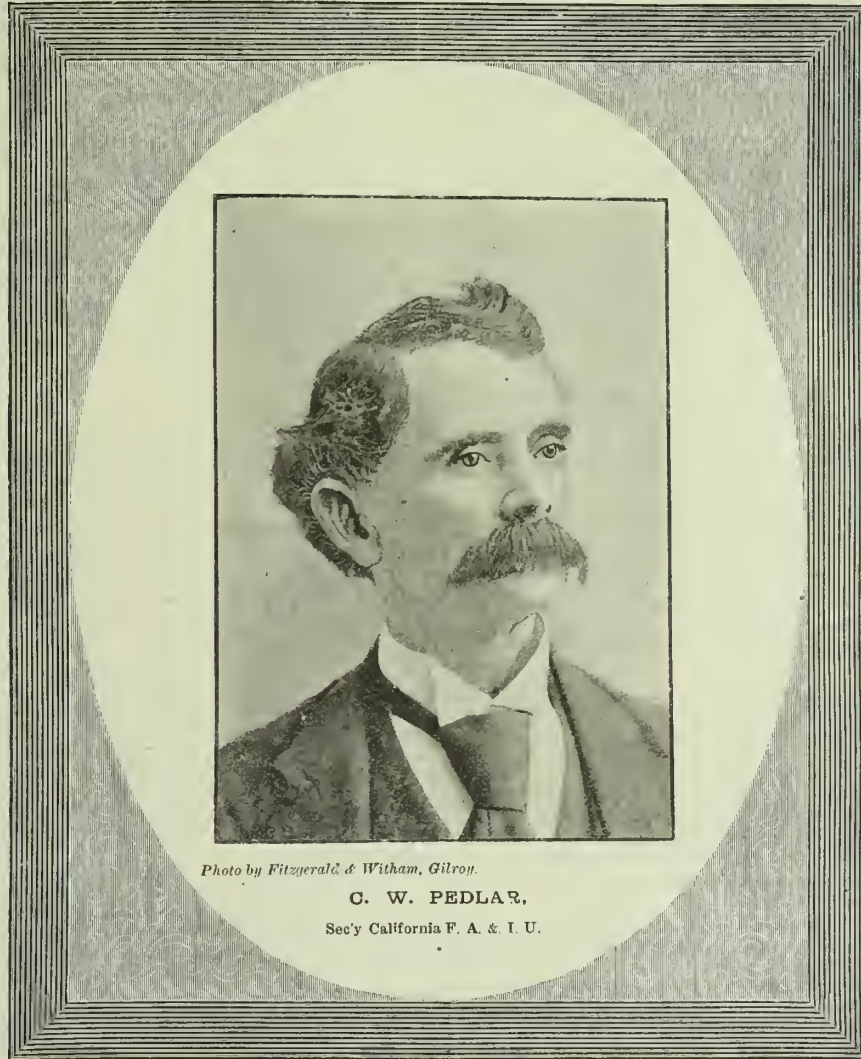


Photo by Fitzgerald & Witham, Gilroy.

C. W. PEDLAR.

Sec'y California F. A. & I. U.

saintly politicians (?) view with surprise and consternation the fact that the great industrial classes are "out on a strike" and that they feel the foundations of their political citadel begin to tremble.

Gentlemen, we are not organized as a band of thieves and robbers. We are not pilferers of other men's purses. We are not clamoring for bread that others have earned. We seek not to destroy existing political parties nor present political affiliations. Justice is what we ask and justice is what we will have.

If we can get it at the hands of either of the old parties, well and good. The party that gives it to us is the party we will support. Since our organization was formed and made its demands, both of the old parties have had an opportunity to do or try to do what they intended to do for the people.

If, after all our legislative bodies have adjourned, it is found that they have dealt out simple justice in "due and ample" form, that will satisfy. If not, we are of the opinion that the ranks of the old parties will look scattered when, in 1892, their candidates take the stump with those old promises "we will do" this, that and the other deed, and thus save the country from ruin.

One half of a century is long enough for any people to stick to a party on the strength of pledges that are made once in two years only to be broken. You will find, gentlemen, that in 1892 party pledges will not do. You will also find that if you have postponed action on measures that embrace the imperative demands of the people with the expectation that out of those measures you can formulate successful campaign documents in 1892, that will not do. Two years hence you will find that the masses are aware that the war is over, that slavery has been abolished, that those who spilled their blood in the cause of freedom have accomplished

prise. We lay no obstacle in the path of civilization or enlightenment; we do not and will not clog the wheels of human progress, but seek to suppress personal, local, sectional and national prejudices and do away with all unhealthy rivalry and selfish ambition, to divert the energies of the saloon-keeper, the usurer, the thief and the gambler into better and more useful channels, to promote and defend the common cause of our race, and to perpetuate the institutions of our fathers.

For the accomplishment of such ends, the good will ever pray and ever act.

SUTTER COUNTY FARMERS' ALLIANCE.—A Farmers' County Alliance for Sutter county, says the Marysville Democrat, was organized at Yuba City, March 20th, under the most favorable circumstances. Every sub-Alliance in the county was represented by delegates and each one was enthusiastic over the prospects and objects of the organization. The assemblage was composed of representative farmers who realize that in union there is strength and that the time has come when they must force from the clutches of land-grabbers and monopolists the reins of government and take into their own hands the welfare of the people. The following officers were elected and installed: President, P. L. Bance; Secretary, O. H. Campbell; Treasurer, Joseph Metteer; Doorkeeper, R. W. Tharp; Assistant Doorkeeper, J. P. Halford; Lectress, Mrs. Phoebe Smith; County Organizer, W. W. Stewart.

No wonder that the movement for the election of United States Senators by direct vote of the people has become popular. Election by the Legislature seems to be little more than a matter of hargain and sale, the corrupt element commonly having the balance of power in that body.—*Marysville Appeal*





### Good Country to Live In.

The German Emperor and I  
Within the self-same year were born,  
Beneath the self-same sky,  
Upon the self-same morn;  
A Kaiser he, of high estate,  
And I the usual chance of fate.

His father was a Prince; and mine—  
Why, just a farmer—that is all.  
Stars are stars, although some shine,  
And some roll hid in midnight's pall;  
But argue, cavil all you can,  
My sire was just as good a man.

The German Emperor and I  
Eat, drink and sleep the self-same way,  
For bread is bread, and pie is pie,  
And kings can eat but thrice a day,  
And sleep will only come to those  
Whose mouths and stomachs are not fees.

I rise at six and go to work,  
And he at five and does the same,  
We both have cares we cannot shirk;  
Mine are for loved ones, his for fame.  
He may live best, I cannot tell;  
I'm sure I wish the Kaiser well.

I have a wife and so has he;  
And yet, if pictures do not err,  
As far as human sight can see,  
Mine is by long odds twice as fair,  
Say, would I trade those eyes dark brown?  
Not for an Empress and her crown.

And so the Emperor and I  
On this one point could ne'er agree;  
Moreover, we will never try;  
His frau suits him and mine suits me.  
And though his son one day may rule,  
Mine stands A 1 in the public school.

So let the Kaiser have his swag,  
Bid kings and nations tumble down,  
I have my freedom and my say,  
And fear no ruler and his crown;  
For I, unknown to fame or war,  
Live where each man is Emperor.

—Boston Globe.

### "Everybody's Easter."

[Written for the RURAL PRESS by ADAH FAIRBANKS BATELLE.]

The rain dropped with a discouraged sound.  
The clouds looked somewhat upset and frowning.  
No wonder, for the discouraged letting-go  
of the drops of water would soon pull those  
cloud-banks to pieces.

It was 10 o'clock in the morning, but the  
house seemed dark. The work department of  
Mrs. Somers' house was scrupulously clean.  
The rooms had an atmosphere that said, even  
to a person outside the door, "We have been  
put in perfect order and will remain empty till  
dinner time.

The sitting-room, too, was in order. Silence  
equally deep and darkness equally profound  
reigned there. Yet a cheerful person would  
not have been cast down. That room, light-  
ened by bright faces would not have depressed  
the most sensitive human barometer.

There were no bright faces in Mrs. Somers'  
sitting-room. The sole occupant, a melancholy  
little figure, stood by the window, discon-  
solately tapping at the pane. A half hour later  
she might have been heard counting the ticking  
of the clock. She could count only to seven-  
teen, so when she reached her limit, she went  
back and counted again, over and over and  
over in a tired little voice. It was pitiful—the  
joyous note in her voice at the striking of the  
clock. Her little face was all eagerness, as the  
noon hour neared. In counting she pro-  
longed each word "one, two, three," with a lit-  
tle oo of delight, and when the twelfth stroke  
had been given, she left the room, and trotted  
to the dining-room door.

She stood there expectantly for several min-  
utes, then the door was opened from the out-  
side, and a burst of child voices filled the room.  
Eager as Bessie was to see her brother and sis-  
ters, she quailed them with many movements  
of her little hand and the words "Mamma  
says," repeated till they listened. Mamma  
says "your lunch is all weddy there, and she is  
not coming down."

"Is mamma sick? She is not, is she?  
What's the matter?" asked Fred, all in a  
breath. "No, but she's looking over Lily's  
finger, and says you must not come upstairs."

A hush fell upon the little group. They  
knew that upstairs the mother sat weeping,  
mourning for little Lily, who had gone from  
the home and whose place no one else could fill.  
The children began to eat in silence, four  
children who ought to have been gleeful, as the  
birds. The lunch was wholesome and daintily  
prepared, but no motherly face smiled over it  
across the table, and the little faces were very  
sober.

"I wish papa came home to lunch." It was  
Jenny who made the daring wish.  
"It would not make any difference" said  
Dora, shaking her head sadly.  
"Poor mamma feels so badly," said Fred.  
"I wish I could go to school. It is so lone-  
some here, Bessie said softly. I wish it had

been me that had died, and not Sister Lily.  
Mamma loved her better than she loved the  
rest of us. She would not have missed me."

"Oh Dora, its wicked to talk that way" ex-  
claimed Jenny.

"I think it's true, don't you Fred," said  
Dora appealing to him.

"I—don't know. Sometimes it looks that  
way. Loyalty to his mother, to the dead sister  
and to the living sister struggled together.

"Poor mamma," he said lovingly, and little  
Bessie said "poor mamma."

The children did not wonder at their  
mother's grief; they had grown accustomed to  
it, but it saddened the world for them. Even  
for little Bessie, who could not remember her  
sister's death.

Nearly three years before, the little Lily, a  
sunny-tempered child had gone from them. In  
the peaceful child death, there was no sting.  
It was a beautiful going to sleep. But Mrs.  
Somers had cried out that she could not part  
from her darling; that her children were dear  
as life, and she could not lose one; that Lily  
had been her favorite. Pity the children whose  
mother has a favorite. In justice to this mother,  
she loved her children impartially. It was but  
natural, that she should think the child she  
had lost was dearest. This was her way of  
measuring her love.

Like many others, "she gave to God with  
tears," and had her training been different, she  
would have rebelled, saying that God was  
cruel. Instead, when her first grief was past,  
she deceived herself with the supposed resigna-  
tion while daily mourning "as one without  
hope."

"There are so many things to remind me,"  
she often said, and whenever called to re-  
arrange some toy or garment of the loved one  
she felt the old sorrow in all its force and  
wept until her aching head sent her to lie down  
for the rest of the day. Husband and children  
were shut out from sorrowing with her. They  
learned to avoid anything that would recall  
their trouble, so in the family circle the name  
that should have been an inspiration and a  
loved memory was rarely spoken.

On this day she had found a bit of Lily's  
work, an unfinished bag of pink like one of the  
child's dresses. The unfinished work and the  
unfinished life—one spoke of the other, and so  
the mother had drawn apart to think of the  
child who needed nothing while the other  
children starved for her love.

The rain had stopped. The children had re-  
turned to school and Bessie was again at her  
lonely watch by the window when Mrs.  
Somers came down stairs. The little sentinel  
left her post and stole to her mother's side to  
kiss the averted face.

"Mamma," she whispered, "isn't it most  
time for your Easter lily to bloom?"

"Yes, dear."

"Will next Sunday be Easter, mamma, or  
the Sunday after?"

"Next Sunday, Bessie."

"Aren't we glad?"

"Yes, Bessie."

"Don't you 'pose Jesus wanted us to be glad?"

The mother did not answer. Two lines from  
something she had read clung in her memory  
as shells and sea moss cling to a ship:

How can the world be gloomy, sick, or sad,  
When Christ, the Lord, has risen for us to-day?

"How can the world," the words sung them-  
selves over, and she could not rid herself of  
their echo.

After waiting for a reply, Bessie went on in  
her odd, old-fashioned way, "I'd like to have  
been at His Easter, and I guess it was 'cause we  
couldn't be that he let us have our own Easter."

"Yes, we keep Easter every year."

"I don't mean that. I mean our Easter  
when we die. Mamma, mamma"—there was  
insistence in Bessie's tone—"don't you think  
we ought to be happy because he made an  
Easter for everybody?"

It was a new thought to the child. Was it  
new to her mother? How often she had heard  
it, but never in just that light. For a moment  
Mrs. Somers stood face to face with this truth, ac-  
knowledging it as a personal visitor. No other  
reception wins. In that moment Mrs. Somers  
had a vision of herself as she had been; of her  
injustice to her living children in her selfish  
grief for her dead. In that moment she felt a  
reproof as from Christ Himself. Would not  
He care for her little one, her "Easter Lily,"  
in His garden?

Was not her work in living for and loving  
the little ones left to her care? With a silent  
prayer for help, she began her new work.

She praised Bessie that she had been such a  
quiet little girl all day, and inwardly resolved  
that the child should spend no more such lone-  
ly days. The affectionate words and caresses  
erased all thought of the long hours, and Bessie  
was blithe as ever.

Presently the little maid ran into the kitchen  
with a scream of delight. O mamma, come and  
see, the Easter lily has bloomed, and it bloomed  
out in the rain, and it looks so—so happy."

How can the world be gloomy, sick, or sad,  
When Christ, the Lord, has risen for us to-day?  
Said Mrs. Somers, reverently, as she kissed her  
daughter.

Fifteen minutes later, Bessie was at the  
dining-room door, telling the children in her  
happy voice, "Mamma is all well again, and  
the Easter lily has bloomed."

O, baby lips, interpreting aright,  
That hidden meaning making all so plain;  
If so, there dawns for us that heavenly light,  
Then Christ, our Savior, has not lived in vain.

### Hosanna He is Risen.

[Written for the RURAL PRESS by GERTRUDE.]

Shout aloud let earth resound;  
Ring ye bells with joyful sound.  
Shout He's risen! Oh shout aloud!  
Till the hills these words will echo  
He is risen, He is risen.

Praise Him early in the morn;  
Praise ye Him from night till dawn.  
For He's risen, and we shall rise.  
Shout Hosanna! loud Hosanna!  
We shall rise for He is risen.

Bring to Him your richest treasure  
Flowers rare and without measure,  
Lay them down at Jesus' feet  
While each heart repeats in gladness  
He is risen, He is risen.

Alameda March, 1891.

### Our State Flower.

[Written for the RURAL PRESS by M. L. S.]

There's a flower that grows in our valleys  
And blooms in our fields of grain;  
It's been crowned at the Court of Flora,  
A Queen o'er the wild flowers to reign.

It is loved by the little children  
For its blossoms of yellow hue;  
They gather them by the armpit,  
They are not content with a few.

Oh, long has this flower been blooming,  
All unconscious of its fate,  
Never dreaming that in the future  
'T would represent our "Golden State."

It grows by the bank of the river  
And all over the dusty plain;  
It greets us in early springtime,  
And we rejoice to see it again.

And where the south wind blows softly,  
Among its fernlike leaves,  
It bends its golden blossoms  
And of hidden treasure breathes.

It is the California Poppy,  
And of all our native flowers  
Has been chosen as the emblem  
Of this glorious State of ours.

### Growing Old.

The ancients Romans placed the beginning of  
old age at forty-six. Doubtless in some indi-  
viduals it begins before that time, and in some,  
years after. When the hair turns gray, when  
the eyes require artificial lenses, when the step  
loses its elasticity, or becomes measured and  
slow, one must believe that he has passed the  
"water-shed" and entered on the decline of  
life—at least as regards the physical part of  
him.

But this may only mean that the long appren-  
ticeship of childhood, youth and middle life is  
over, and that he has entered on the golden  
autumn of ripe and abundant fruitage. He has  
learned the use of his tools; henceforth there  
need be no bawling work, blunders, no misfits.  
At eighty, Mrs. Somerville wrote her work  
on the wonders revealed by the microscope; at  
ninety, she was pushing her researches in the  
higher mathematics.

When Moltke achieved his renown, he was  
some years past sixty. Gladstone, the grand  
old man, still holds his own at eighty-two.  
Holmes still delights us "Over the Teacups."  
Lowell has never written better prose than  
during the last ten years. Longfellow was as  
charming in his age as in his prime. Mrs.  
Howe and Mrs. Livermore, in the seventies,  
still draw and delight large audiences. The  
list might be indefinitely extended.

The elderly may do less work at sixty and at  
seventy than at forty, but they may do it bet-  
ter, with more ease to themselves, with an as-  
sured certainty of success that they had not in  
their younger days. And if their hearts are  
young, they will never grow old.

And what is the secret of keeping the heart  
young? Is it not the loving the same things  
in age that one loved in youth? If in youth  
we love those things that in themselves are  
eternally lovely and desirable, and keep on  
loving them through all the years, can our  
hearts ever grow old? If the love of the neigh-  
bor parallels the love of self, if love of truth,  
intelligence, virtue, reverence toward God,  
cultivated in youth, and changing not but to  
increase as the years increase—if all these char-  
acterize the individual, how can his heart  
grow old? He is, as Macaulay says of the  
Greek spirit, "Fresh in immortal youth, ex-  
empt from mutability and decay." And  
"though the outward man perishes, the inward  
man is renewed day by day."—Sel.

CLEANING COLORED WOOLENS.—Four ounces  
of white castile soap, four ounces of ammonia,  
two ounces of alcohol, two ounces of glycerine.  
Shave the soap in one quart of water over the  
fire. When dissolved add four quarts of rain  
water, and when nearly cold the other in-  
gredients. Bottle and keep in a cool place.  
One cup of this mixture in two quarts of water  
will be sufficient for ordinary use. Now lay  
the goods on an old sheet, and iron rapidly and  
lightly on the wrong side, and then roll tightly  
on a curtain pole or any round piece of wood.  
If this is carefully done you do away with the  
creases made by folding. For black silk or  
cloth dissolve one tablespoonful of borax and  
one tablespoonful of indigo in one pint of warm  
water. Sponge the pieces well and lay smoothly  
one above the other, and, if possible, put in the  
sun to dry.—Ladies' Home Journal.

### Pacific Grove Assembly for 1891.

The Chautauqua Literary and Scientific Cir-  
cle makes the following announcement:

The attractions of Pacific Grove, on Monterey  
bay, are too widely known to need any reitera-  
tion. It is pre-eminently the place for sum-  
mer recreation. The managers of the assembly  
are able now to announce their program quite  
fully. The dates are from June 24th to July  
10th. Recognition Day, the time of the gradu-  
ating exercises, will be July 10th. Opening  
Day and Recognition Day are the *Festal Days*,  
and will be grand occasions.

Dr. Hirst will preside during the whole as-  
sembly in his own admirable way. The de-  
partments remain largely in the familiar hands:

Marine Botany, Dr. C. L. Anderson; General  
Botany, Miss M. E. B. Norton; Conchology,  
Prof. Josiah Keep; Biology, Prof. W. W. Tho-  
burn; Pictography, Mr. C. E. Platt; Voice  
Culture, Miss A. L. Cadle; Cooking School,  
Mrs. Sophie W. Knight; Art, Prof. Ivey  
(Southern Cal.).

A new department for Historical Study will  
be organized by Mrs. Florence Williams, the  
well-known lecturer and teacher, who last year  
delighted the assembly with her lectures.

Prof. Ivey is art instructor in the University  
of Southern California and takes the place of  
Miss Kennedy, who has returned to her Eastern  
home. He is an English artist of wide reputa-  
tion and great ability, both as artist and  
teacher.

Prof. S. D. Waterman, principal of the Ber-  
keley High School, will continue his excellent  
work in the department of Teachers' Review  
and Normal Instruction.

A new feature will be a department of Higher  
Pedagogics, under the care of Prof. Will S.  
Monroe of Pasadena. Prof. Monroe is a new  
man in California, but already has a high re-  
putation among our educators. Prof. Ira Moore,  
principal of Los Angeles State Normal School,  
says of him: "He is an assured success as an  
Institute worker, which means that he is a man  
picked from ten thousand." During the last year  
Prof. Monroe has lectured before ten of our  
County Institutes, to the profit and delight of  
our teachers. His presence at our Assembly  
makes it worth while for every teacher in our  
part of the State to improve this opportunity  
for getting new ideas and fresh enthusiasm.

The Sunday School Normal Department will  
this year be greatly re-inforced by the presence  
of Dr. J. G. Gilbert of Indianapolis, a distin-  
guished Sunday School Normal teacher, who  
has come to this coast on the combined invita-  
tion of our State Sunday School Committee and  
the Chautauqua Society. He will take charge  
of the classes in Sunday-school normal work at  
Pacific Grove, and brings to us a reputation of  
almost unequalled capability. Let the Sunday-  
school workers and bible students of this region  
rally to this standard.

### Lecturers.

The popular Lecture Department of the As-  
sembly is to be up to its usual brilliant record.  
A partial list of speakers follows:

Dr. P. S. Henson of Chicago takes the place  
of Dr. Gunsaulus of last year, and is a grand  
platform man.

Dr. W. H. Witbrow of Montreal, Snpt. of  
the Canada C. L. S. C., will lecture upon the  
Catacombs. He is a traveler, an author and  
an enthusiastic speaker. His lectures are  
finely illustrated.

President Homer Sprague of Dakota will give  
two of his great historical lectures.

Prof. John Dickinson of San Francisco,  
brother of the famous Anna Dickinson, and a  
well-known scientist and popular lecturer, will  
fill two evenings.

Prof. E. Destrilla of the Berkeley Deaf and  
Dumb Institute will give two illustrated pan-  
tomic lectures of novel interest.

Prof. Barnard of Mt. Hamilton and Dr. J.  
H. Wythe of Oakland will each give an il-  
lustrated stereopticon lecture.

Mrs. E. M. Stanton of San Francisco, author  
of a popular book upon physiognomy, will give  
a very taking lecture upon "How to Read  
Faces."

Rev. Selah Brown will be present with some-  
thing new and delightful for his hosts of friends.

### Music and Popular Concerts.

These favorite parts of the Assembly are never  
overlooked. This year we are not going abroad  
for our talent when so much lies at our door.

The University Glee Club, of Berkeley, will  
bring their fresh young vigor, enthusiasm and  
capital training to the service of the Assembly.  
The public may expect confidently such music,  
both vocal and instrumental, as they have  
seldom enjoyed. "The Boys" have won golden  
opinions wherever they have appeared—in  
Oakland, Stockton, Napa and elsewhere. They  
will be supplemented by other musical talent,  
the very best procurable.

A grand "Destruction School," wherein many  
famous old "boys and girls" figure, will give  
the Chautauqua a chance for once to laugh  
at some of their dignitaries.

The schedule of prices will remain un-  
changed. The greatest amount of returns for  
the smallest outlay that is known to this part  
of the world.

The Hotel Carmelo offers a charming home  
to the visitor. Cottages and tents to rent in  
abundance. Boarding houses and restaurants  
on every hand. The sea always and every-  
where in sight and hearing.

Whatever else you leave out of your summer



program, do not leave out Pacific Grove and its Assembly.

New railroad circulars, with full directions, can be obtained soon at every station of the S. P. R. R. The C. L. S. C. Annual will be out in a few weeks, with full daily program and much additional information. Write for one to the Secretary, Mrs. M. H. Field, San Jose, Cal.

### Chaff.

Nothing grows much faster than troubles that are unred.

"KEEPING up appearances" means a frugal diet in order to give an occasional dinner party.

DURING the winter the hen may be dilatory, but she generally comes to scratch when the garden is planted.

It is easy for a girl to fall in love with a worthless man, but when she has to support him by taking in washing—ah, there's the rub.

"On what grounds did Henshaw get his pension? I never heard that he did any fighting during the war." "He didn't; but he claims his sympathies were enlisted."

NANCY (to her cousin from the city)—Can you climb trees? Maude (first visit to the country, in pained surprise)—Haven't you an elevator?

MR. FIGG—Tommy, my son, do you know that it gives me as much pain as it does you when I punish you? Tommy—Well, there's some satisfaction in that, anyhow.

MAY—What on earth made you refuse Lord Sideboard's offer? Ethel—Well, it's bad enough to be called "lady" by policemen and ticket-choppers without legalizing the epithet.

CLIENT—You have an item in your bill, "Advice, Jan. 8, \$5." That was a day before I retained you. Lawyer—I know it. But don't you remember on the 8th I told you you'd better let me take the case for you? Client—Yes. Lawyer—Well, that's advice.

A YOUNG lady in a Northport, Me., school compared ill in this manner: "Nominative, ill; comparative, worse; superlative, dead." The whole class looked up very much surprised, and the master, with an effort to control the sadness which he felt, arose and said: "Scholars, you may have 15 minutes for the funeral."

"I understand that a cyclone carried your house away," said a Chicago man to a Kansas friend. "Well, I lost the house," replied the Kansan, "but I don't blame it altogether on the cyclone." "No?" "You see, I was fool enough to put wings on the building."

FARMER PEASTRAW—Well, son, what did you learn at college? Son—I learned to fence, for one thing. Farmer Peastraw—That's good; I'll get some nails to-morrow and we'll have a bout.

### The New Vagrant Law.

The Senate bill defining vagrancy and punishment has been signed by the Governor. It provides that the following classes of persons shall be deemed vagrants, and when arrested shall be punished for misdemeanor: First—Every person, except a California Indian, without visible means of living, who has the physical ability to work and who does not seek employment nor labor when employment is offered him; or, second, every healthy beggar who solicits alms as a business; or, third, every person who roams about from place to place without any lawful business; or, fourth, every person known to be a pickpocket, thief, burglar or confidence operator, either by his own confession or by his having been convicted of either of said offenses, and having no visible or lawful means of support, when found loitering around any steamboat landing, railroad depot, banking institution, broker's office, place of public amusement, auction-room, store, shop, or crowded thoroughfare, car or omnibus, or at any public gathering or assembly; or, fifth, every idle or dissolute person, or associate of known thieves, who wanders about the streets at unusual hours of the night; or, sixth, every person who lodges in any barn, shed, shop, out-house, vessel, or place other than such as is kept for lodging purposes, without the permission of the owner or party entitled to the possession thereof; or, seventh, every lewd or dissolute person who lives in and about houses of ill-fame; or, eighth, every person who acts as a runner or caper for attorneys in and about police courts or city prisons, in incorporated cities or cities and counties; or, ninth, every common prostitute and common drunkard is a vagrant and is punishable by imprisonment in the county jail for not exceeding six months.

HOW TO CLEAN RUBBER SHOES.—A correspondent of an Eastern journal says there is a homely fact that people ought to know in these days, when we are getting a taste of an old-fashioned winter, so that rubber shoes are in frequent requisition by all classes. He wishes to make it known that the easiest way to clean rubber shoes of any kind is to rub them with vaseline. They then clean much better and last longer than if they are washed with water.

DISTILLED SPIRITS CONSUMED IN THE ARTS. According to the new census report, the total quantity of distilled spirits consumed in the arts, manufactures, and medicine in the United States during the twelve months ending Dec. 13, 1889, was 10,976,842 proof gallons.

## YOUNG FOLKS' COLUMN.

### Bayberry Tallow.

[Written for the RURAL PRESS by LUPA.]

"Grandpa."  
"Well, Harry."  
"What is that you keep biting every little minute?"

"What does it look like?"  
Harry picked up the gray-green lump from grandpa's shoe-bench and turned it over and over, feeling, smelling and finally tasting, but all the time looked puzzled, and at length asked again:

"What is it, grandpa?"  
"It's tallow."

"Tallow! What's it good for?"  
"Well, in hot weather I rub my thread over it to keep it from getting sticky and tangling itself. It is good, too, for polishing the edge of the shoe sole after it is pegged and trimmed."

"Can you do anything else with it?"

"Yes, grandma melts it with the other tallow when she makes candles in the spring."

"What for?"

"To make them harder for summer so they'll not melt and run down on the candle-stick."

Again Harry tried to push his thumb-nail into the hard lump, but in less than a minute came another question.

"Say, grandpa, where does it come from?"

Grandpa laughed, then said, while his eyes still twinkled:

"Why, Hal, you're a perfect catechism."

"What's a catechism?"

"Something that asks questions."

"But what's the good of a tongue if a fellow don't use it?"

"Maybe it's like the bone I read about that somebody had found in us and couldn't see any use for, so named it the resurrection bone."

Grandpa saw that Harry was catching his breath to ask what that meant, so he went back to the first subject.

"Now about this tallow, my boy. I'll tell you. It grows on bushes."

"On bushes?"

"Yes. Do you remember when we went to the pasture yesterday you found some small, hard berries and asked me if that was where all the shot grew?"

The boy's cheeks flushed hot when he remembered how his cousins had laughed at that question, and began to feel as if he did not know much if he had lived in a city all his life.

"You know I told you they were bayberries, and that gray coating on the outside is this tallow, bayberry tallow."

"But how do you get it off?"

"By steeping them in hot water. The tallow comes to the top, we skim it off, melt it again without the water, cool it in some sort of mold a cup or a dish, anything that comes handy, take it out and it is done."

Harry was silent for a wonderfully long time for him, looking at the tallow and whistling softly to himself; then he nodded decidedly at the leather roller which had coaxed his inquisitive forefinger between the cogs of its wheels and given it a sharp nip on his first visit to the shop, pushed both hands to the bottom of his pockets, shook some imaginary dollars there and said in a low, emphatic tone:

"I'll do it. See if I don't."

Grandpa wouldn't risk being called a catechism, so asked no questions then nor after, though he wondered what took Harry off alone day after day, but he had faith in the boy; besides, he believed children had a right to secrets as well as older ones and that all would be understood in good time, so the child came and went as he pleased and seemed to get happier every day till—I am not going to say how long afterward, for I have forgotten and it makes no difference—at length came the evening of July 31, when his eyes shone like stars, and every few minutes he commenced to speak then clapped his hand over his mouth and shut back the words. His cousins were sure they would die of curiosity before long, but grandpa had told them to keep still and they had obeyed, though with some grumbling. The boy went to bed early, trying to sleep but lying awake instead, for an hour or more, and several times in the course of the night waking himself and them by laughing aloud.

Morning twilight, the morning of the "Glorious Fourth" found him slipping softly out of bed into his clothes and down the stairs, while all the rest were in the midst of their best dreams. In a few minutes Babel, Jericho, Pandemonium were nothing compared with that spot. Each pane in the little, old-fashioned window seemed driven into a nervous chatter by the booming, clashing and rattling in the house and out. Rover bounded ten feet into space with a terrific yelp of fear and anger, the hired man shouted:

"Thunderation! what's a-goin' on?"

Bridget flopped over on her knees, snatched her beads and commenced calling on the Virgin Mary and all the saints. Grandma twined at her night-cap strings and exclaimed:

"For mercy's sake, what's the matter?"

Mary screamed, and the boys rushed to the windows with whoops of delight, but Grandpa laughed long and heartily, winding up this exercise with, "It's that boy."

In a few seconds came another explosion louder than the first, and in the after silence a merry, boyish voice called for: "Three cheers

for the Fourth of July," and the front windows seemed suddenly blazing with stars and stripes as they unrolled with a grand sweep from the end of a pole almost too heavy for the young arms that held it. The various ghosts dematerialized in a twinkling, to appear again in every day costume and help swell the shout of the little patriot. To their eager questions he answered only:

"I did it with bayberry tallow."

Though it was a puzzle still to the rest, Grandpa understood the days spent in the pasture, the trips to town (of course to sell the berries to the candle-makers), and the mysterious bundles brought back and carefully locked in his trunk. Grandpa understood but simply said:

"I'll risk you, Sonny!"

## DOMESTIC ECONOMY

### A Dissertation on Dishcloths.

[Written for the RURAL PRESS by ADAH F. BATTLE.]

Of the prose waits that periodically go the rounds of the press, few have a clearer mission than "Death in the Dishcloth." The reappearance of this article is the signal for many a kitchen holocaust. Dishcloths of uncertain age, grimy appearance and greasy odor give place to wholesome pieces of various texture.

Yet is it so hard to keep dishcloths clean? Decidedly, no, to the woman who does her own work. Her sister, who depends on the work of others, will have greater difficulties; careful directions will, however, have their effect here.

But let us turn to our subject, lest we find ourselves in the mazes of the servant girl question. I hope you use the dishmop, the small five or ten cent kind; for economy does not tempt to using it too long. But you do not confine yourselves to the mop so, as to the homestead kind, here is a field for choice. Old linen is lousy and its place is in the hospital basket. The very coarsest linen is, however, good.

Next come the crash towels. They make the best of dishcloths, especially for glassware. To my mind they are fully as good as those netted from cotton twine. Next to the towel, I prefer knitted cotton. Heavy knitted undershirts, cotton, when cleansed by an extra boiling in kerosene or ammonia may find a place in the culinary department of the neatest kitchen-keeper.

If you must use calico cloths, let it be in fruit-canning time—a season when blackberry stains or jelly marks are likely to disfigure anything used around the cans. Lay calico fruit-cloths where they can be found and you will save your dishcloths.

The important point and the one oftenest neglected does not concern texture or color, but cleanliness, and this is not an imputation against American housewives. Do you wonder that with her many cares one thing is sometimes neglected? The dishcloth does not appeal to her sense of the beautiful, but its unloveliness is more is more than compensated for by its usefulness. Let us keep it clean. That means that the dishwater must be free from grease. If the water is hard, use a little washing-soda, but don't put your hands in the dishwater. Take your mop, or, if you use a cloth, fold with your dish tongs. In soft water use plenty of soap, and wash milky dishes in clear water with a different cloth, before putting them into the suds.

When the dishes are washed, rinse the cloths in warm suds, then in cold water. Hang them on a line and you will have no trouble with musty cloths even in dampest weather.

Besides the little line near the dishpan, it is well to have another line outside the kitchen window. Then don't use dishcloths too long, and there need be no more cries of "death in the dishcloth."

QUERY.—Will some reader of the RURAL inform me what is the best way of preserving orange and lemon peel?

DELICATE CRACKERS.—Two pints of flour, one pint of sweet cream, yolks of three eggs. Roll out thin, stick and bake like any other thin biscuit.

BEETS.—Boil beets in salt water until tender. Remove the skins, cut in thin slices, and fry in butter. Dust with pepper and salt. Squeeze over the juice of a lemon.

WAFFLES WITHOUT EGGS.—A tablespoonful of lard put into a teacupful of cornmeal; pour scalding water on it until it is as thick as mush; put to this one pint of buttermilk, half a teaspoonful of soda, and one pint of flour. They are very nice if well made.

TEA CAKE.—Three tablespoonfuls of softened butter, and one cup of sugar beaten together until light as a feather, three eggs (the yolks and whites beaten separately), adding the yolks first, then one cup of flour, and lastly the whites; no baking powder.

NEW ORLEANS POTATOES.—Pare and cut raw potatoes into three-fourth-inch dice; throw them into ice-water for thirty minutes to one hour. Drain very dry. Have ready a kettle of deep lard. When you are sure it is really boiling, drop in the potatoes and fry golden brown four or five minutes. Sift them out; drain, dry on brown paper in the month of the oven. Sprinkle with salt and serve. A quarter of an onion fried first in the lard gives a very pleasant flavor.

## GOOD HEALTH.

### La Grippe Epidemic.

La grippe, according to the report of the State Board of Health for February, is again upon us, and rapidly developing into a widespread epidemic, quite equal to that which prevailed during the winter of 1889-90. The present epidemic is characterized by its sudden onset and the intensity of its initiatory symptoms, the premonitory chill, the fever, headache, backache, pains in the bones and muscles, that more nearly resemble *dengue*, or *hackbone fever*, than any other disease. Another feature peculiar to the present epidemic is the frequency with which cases occur in which the cough is almost entirely absent, and others in which pneumonia of a low type is almost certain to be developed. The debility accompanying the disease is invariably present and must be treated by stimulants liberally given. The origin of the disease being unknown, the power of the sanitarian over it is exceedingly limited, and consists chiefly in advising the avoidance of all depressing influences that might deteriorate the healthy constitution, or impair its strength.

In many cases it is accompanied by slight pneumonia or pleuro-pneumonia, which in feeble constitutions may assume a severe type. This may account for the unusual mortality from pneumonia during the month of February—160 deaths being counted in a population of 721,975.

La Grippe is a febrile disorder, and it usually ends with a slow convalescence. Its mortality when not attended or immediately followed by pneumonia, is generally small—not over two or three per cent of the cases. It is generally accompanied by loss of strength and depression of spirits. It appears to travel like cholera from east to west.

### The Origin of La Grippe.

It is supposed to be occasioned by the presence in the atmosphere of a specific organism which enters the body in the air that is breathed, and rapidly multiplies until the food on which it lives is exhausted, when it perishes and disappears. Hence it is admitted to be both contagious and infectious. If this theory of its origin be sound, it follows that little good can be done by medicines, though they may mitigate some of the more annoying symptoms. The high priests of bacteriology are studying to discover some means of destroying this supposed yet undiscovered bacillus.

There does not appear to be much connection between la grippe and a common cold, except that the occurrence of a cold may so weaken the system as to make it more susceptible to the attack of la grippe bacillus. Hence care should be taken to avoid exposure. There is no need for especial alarm, but people, especially the aged and feeble, should be upon their guard against possibilities.

### The Treatment of the Disease.

The symptoms or the approach of the disease are given above. We clip from a cotemporary the following rules for treatment which will generally be found to apply to all cases. The first is to stop the chill with which the attack usually begins, and this should be done with hot bottles, and in obstinate cases with the use of a hot brick steeped in alcohol. At all costs, the temperature of the patients must be restored. This accomplished, the loss of strength caused by the disease should be met by a generous use of digestible and nutritious food. Physicians generally supplement this treatment by prescribing a number of drugs which may be of service or may not. The chances are that they will do no harm. The patient should remain indoors, in a room that is free from draughts and suitably warmed. He should, so far as he can, keep up his spirits by cheerful reading and conversation.

It was found last year that people who had had the grippe were left in a crippled condition when it disappeared. They remained for weeks feeble and liable to catch other diseases; they suffered terribly from depression of mind, and the nervous system remained out of order for quite awhile. These consequences of the malady are characteristic, and it is not easy to see how they can be prevented. Physicians have not succeeded as yet in discovering an antidote for nervous depression, and la grippe takes on that shape in the stage of convalescence. It leaves "the blues" behind it, and it is beyond the reach of modern art to dispel them.

The spread of this disease might no doubt be materially lessened if the public could be taught to look upon it as it does upon diphtheria and small-pox, and take the same precautions in isolating its victims as it does in cases of those diseases. A cotemporary makes a good point, applicable to all contagious diseases, as follows: Another point upon which it might be well to inform the public is, that where an infectious or contagious disease occurs in a home and the washing of the patient's bedding or clothing is sent away to be washed without first having them thoroughly disinfected and the washer-woman or any of her family thereby become infected, they can recover damages in a court of law if not previously notified or warned that the clothing is infected. A few successful suits of this kind would engender caution and a realization of the fact that public protection must be afforded against infectious disease.





A. T. DEWEY.

W. B. EWER.

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(NEW THIS ISSUE.)

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H. res Sale—Killip & Co.  
Preservative Compounds—Paraffine Paint Co.  
Sheep Dip—Shubert, Beale & Co.  
Carts and Wagons—Truman, Hooker & Co.  
Canned Corned Beef—Mohl & Yoerk, Sacramento.  
Butter Color—E. M. & J. D. Long, Williamsville, N. Y.  
Poultry—J. R. Catlett, Pleasant Grove.

See Advertising Columns.

## The Week.

Cool, drying winds from the northwest have ruled for several days over a considerable area of the State, and the exhaustion of moisture has been rapid. Much soil packed by the heavy rains of February has dried out faster than was anticipated, and plowing is yielding clouds in soils apt to pack. More rain would be desirable to secure fine tilth and to carry on the growth of grass and grain, and a good shower would be generally welcomed.

The Legislature is on the point of adjournment as we go to press and the end of the prolonged session will be hailed with delight all around. This Legislature has either been the most objectionable or else the most unfortunate the State has lately seen. And yet it has done some very good things, and it is not unlikely that a careful estimate, after the memory of the unfortunate "sensations" of the session has passed away, may show its work better than it now is credited with. Such is usually the case and such is at all events a charitable view to take of it.

## Ramie Culture.

A French professor expresses great confidence in the future of ramie culture in France. He thinks it will be the means of delivering that country from its present heavy obligations to other countries for textile materials. Whatever we of California may think of these conclusions, we cannot but note with interest the hopefulness of the ramie industry in a country where both its cultivation and manufacture have made most important progress during the comparatively short time of but little over a single decade.

Commencing with its cultivation only, it soon began to take a prominent place among the manufacturing industries of that thrifty people. Starting without any aid from Government, it soon arrested the attention of government officials to such an extent as to induce them to speak encouraging words for it. Experiments were also ordered for the purpose of ascertaining its relative excellence, as compared with other fibers. One series of these experiments in comparison with Russian hemp showed the breaking weight of same to be from 125 to 160 as compared with 80 for Russian hemp. Another series of experiments in regard to its traction capacities with hemp, flax, silk and cotton were found to be represented by the figures 100, 36, 25, 13, 12, respectively. The elasticity of the same fibers stood 100, 75, 66, 400, 100. Several other carefully conducted experiments were also made, in all of which, ramie held the first position with large odds in its favor.

A very important property of ramie for the manufacture of cordage and sail cloth was found to exist in its incomparable power for resisting the action of damp atmosphere and water.

There is no fiber known which is capable of being wrought into such a variety of useful fabrics as ramie. Samples have been shown in this city of every class of goods for both male and female wear, from the coarsest and cheapest which can be utilized up to fabrics which bear almost undistinguishable likeness to the best Lyons silk, or such as will not suffer in comparison with the finest Chantilly lace.

Until within a few years manufacturers have been compelled to rely mostly upon the slow and tedious though cheap process of hand decortication, as practiced in India; but recently most effective machine decorticators have come into use which are able to do the work quite as well and cheaper than the same work can be done by the ten-cents-a-day laborers of India. By the aid of these machines there need be no lack of the raw material for our factories wherever or whenever they might be established.

Several of these machines have been introduced into California, one of which was shown at work at the last Mechanics' exhibition in this city, which appears to answer all the demands that can be asked for such work. In all other portions of the world where ramie decortication has been introduced, it has been worked in a state more or less green or damp, and resort has to be made to some chemical process to remove the gummy substance which always adheres to the fiber. It has been found, however, that the dry climate of California so effectually removes the moisture from this gum and renders it so brittle that it is sufficiently removed in the form of fine dust by the action of the decorticator to place the fiber in a marketable condition without the use of chemicals. This is a very great advantage, saves much cost and largely adds to the advantage which the California grower will have over growers in other and less favorable climates.

Considering all these facts, and especially this last-named advantage, it would seem to behoove California farmers to carefully consider the importance of this new and promising industry. Experiments made under the auspices of our State University, as well as by many practical farmers in various portions of the State, have fully shown the admirable adaptability of this State for the cultivation of the ramie. In our issue of the 14th inst. we made known the fact that a market had already been established here for the fibre, in localities where a sufficient quantity could be grown to make it an object to locate a machine for its decortication and proper preparation for transport. We also alluded to a movement in that

direction which had been initiated in Sonoma county. Since that date we notice that the matter has been taken up by the farmers in Sacramento county, and it is to be hoped both Sonoma and Sacramento will take active measures to produce a sufficient quantity of the plant in their respective centers to make a thorough and practical trial, the present season, and thus demonstrate to the State that we have a business at our command which may be readily and speedily advanced to one of the most important industries of the State.

A bill appropriating \$10,000 for the encouragement of ramie planting in this State has passed both branches of the Legislature—the Senate by a unanimous vote—and will, no doubt, receive the signature of the Governor.

## Farmers' Institutes.

An important letter on Farmers' Institutes by Col. R. P. McGlincy of Santa Clara county may be found upon another page of this issue. As Col. McGlincy had wide experience in Institute work in the Western States, before he came to California, his words on the subject will carry exceptional weight. We are glad that he has such faith in the value of the Institutes, and hope that his services may be enlisted in helping on the work in this State.

As has already been stated in our columns, the Regents of the University have taken steps for the promotion of Institutes in this State, but it should be borne in mind that but preliminary steps only have been taken. Specific instructions to the officers to whom they intrust the chief part of this work have not yet been prepared, nor can they be until the features of the situation are properly considered. It is, therefore, not possible yet to take up the work formally. Still Professors Hilgard and Wickson are ready to take part in Institute work as far as possible, consistent with other University duties. It is just in the midst of a term at Berkeley; the classes in the agricultural department are unusually large, and the first duty of the instructors is to their pupils. Before the beginning of another term it is expected that arrangements will be completed by which the contemplated Institute work may be formally taken up.

Two Institutes are now planned for the first week in April under the auspices of the County Alliances of Tulare and Fresno counties. The Tulare meeting is arranged for Thursday evening, April 2d, in Tulare City, and Prof. Wickson is expected to be present. The subject will be "Injurious and Beneficial Insects," and it is hoped that the meeting will draw out a full discussion of local observation and experience.

The Fresno County Alliance has arranged an Institute to be held in Fresno on Friday and Saturday, April 3d and 4th. The committee, consisting of J. H. LaRue, W. F. Blaney, C. B. Kemble and John S. Dore, appointed to make the preliminary arrangements for the Institute, has been actively at work, and a meeting full of interest is assured. The Fresno city board of trade will provide suitable ball accommodations. The Institute will open on Friday morning with an address by Prof. Wickson on the "Aims, Methods and Accomplishments of Farmers' Institutes." On Friday afternoon, Prof. Hilgard will speak upon "Alkali; its causes and remedies." It is expected that full discussion will follow this address, and information of great practical value will be brought out. Many other speakers have been invited by the local committee, and we regret that we have not a full list of speakers and subjects to publish in the RURAL. It will no doubt be found in the Fresno papers before the day of meeting, and the announcement should attract a large concourse.

**SENATOR FELTON.**—Just after the RURAL went to press last Wednesday the Legislature elected Charles N. Felton of San Mateo county U. S. Senator to fill the unexpired term of the late George Hearst. Mr. Felton was born in New York 53 years ago, and came to this State in 1849, at the age of 17. He followed mining at first, then mercantile pursuits, becoming finally a prominent San Francisco merchant. He has held a number of public offices and has used his large capital in the building up of a number of industrial enterprises in various parts of the State.

**CO-OPERATION AMONG FRUIT-GROWERS.**—The fruit-growers of the Cupertino district of Santa Clara county held a meeting to advance co-operation, on Tuesday evening of this week, at

which Col. McGlincy delivered an address favoring the movement. The co-operative society proposes to dry and market the products of its members, as has already been described in the RURAL.

**THE W. P. C. P. A.**—The convention of the members of this association of women writers of the coast was held in this city last week and was a great success from all points of view. Quite a number of the RURAL Home Circle contributors were in attendance, and we are promised for our next issue an outline of the meeting of the association and of its scope and purposes. We are much gratified at the success of the effort at co-operation among our gentle pen pushers and shall be glad to minister to it in any way we can.

**THE CANNERY COMBINE.**—Meetings have been held again during the past week between the local cannery owners and the agent for capitalists who propose to buy the whole output of them. It is reported that the cannery fixed the figures at which they would sell and that the agent took the figures and promised to summon another meeting if his backers desired to deal on the proposed basis. Thus the matter stands at present.

## ENTOMOLOGICAL.

## The New County Commissioner Law.

We are indebted to Hon. H. P. Stabler for the following copy of a bill which has passed both houses and may have the Governor's signature before it reaches our readers. It was introduced by Mr. McComas.

**AN ACT.**—Amendatory of an act entitled "an act to protect and promote the horticultural interests of the State," approved March 14, 1881, approved March 19, 1889.

**SECTION 1.** Section two of said Act is hereby amended so as to read as follows:

**SEC. 2.** It shall be the duty of the County Board of Horticultural Commissioners in each county, whenever it shall deem it necessary, to cause an inspection to be made of any orchards, or nursery, or trees, plants, vegetables, vines, or fruits, or any fruit-packing house, storeroom, salesroom, or any other place or articles in their jurisdiction, and if found infested with scale insects, or codlin moth, or other pests injurious to fruit, plants, vegetables, trees, or vines, or with their eggs or larvae, they shall notify the owner or owners, or person or persons, in charge or in possession of the said places, or orchards, or nurseries, or trees, or plants, vegetables, vines, or fruit, or articles, as aforesaid, that the same are infested with said insects, or other pests, or any of them, or their eggs or larvae, and they shall require such person or persons to eradicate or destroy the said insects or other pests, or their eggs or larvae, within a certain time to be specified.

Said notices may be served upon the person or persons, or either of them, owning, or having charge, or having possession of such infested place, or orchard, or nursery, or trees, plants, vegetables, vines, or fruit, or articles, as aforesaid, by any Commissioner, or by any person deputed by the said Commissioners for that purpose, or they may be served in the same manner as a summons in a civil action. [Any and all such places, or orchards, or nurseries, or trees, plants, shrubs, vegetables, vines, fruit, or articles thus infested, are hereby adjudged and declared to be a public nuisance.]

And whenever any such nuisance shall exist at any place within their jurisdiction, or on the property of any non-resident, or on any property, the owner or owners of which cannot be found by the County Board of Horticultural Commissioners after diligent search within the county, or on the property of any owner or owners upon which notice aforesaid has been served, and who shall refuse or neglect to abate the same, within the time specified, it shall be the duty of the County Board of Horticultural Commissioners to cause said nuisance to be at once abated by eradicating or destroying said insects, or other pests, or their eggs or larvae. The expense thereof shall be a county charge, and the Board of Supervisors shall allow and pay the same out of the General Fund of the county. [Any and all sum or sums so placed shall be and become a lien on the property and premises from which said nuisance has been removed or abated, in pursuance of this Act, and may be recovered by an action against such property and premises; which action to foreclose all such liens shall be brought in the proper Court by the District Attorney of the county, in the name and for the benefit of the county making such payment or payments, and when the property is sold, enough of the proceeds shall be paid into the County Treasury of such county to satisfy the lien and costs; and the surplus, if any there be, shall be paid to the owner of the property, if he be known, and if not, into the Court for his use when ascertained.]

The County Board of Horticultural Commissioners is hereby vested with power [to] cause [any and all such nuisances] to be at once abated in a summary manner.

**SEC. 2.** This Act shall take effect and be in force from and after its passage.



# THE STABLE.

## Types of Clydesdale Horses.

[Written for the RURAL PRESS by JOHN DARE EMERSON.]

In your issue of February 7th a portrait appeared of a "Royal and Representative Imported Clydesdale Stallion, one of the handsomest horses ever imported to America, named Prince Arthur Wellesley." The horse so portrayed and described has merit, but he is not a "good representative" of the best type of the Clydesdale horse. There are two types or strains in that breed of horses, the principal difference being in their legs and feet.

It will be noticed that Prince Arthur has very hairy fetlocks. Animals of that type are liable to suffer from the fetlock disease, known as "grease," particularly if they have to work on wet, clayey soils. Forty years ago the hairy-footed horse was more common than he is now. He was usually a shade larger than the other type of the breed, and for a short, heavy pull was slightly his superior, but when it came to the active endurance of every-day work, he did not show to advantage. His massive-looking legs made him attractive to some, but judges at fairs and shows, knowing that these were his weakest parts in wear, generally decided against them. Your remarks on the horse illustrated show that though he is nine years old, he has been the winner of only one prize, a second, and that at an unimportant exhibition in Annam, Dumfriesshire, Scotland, when he was but a yearling. He is, therefore, no more than a representative of a strain of Clydesdale horses which is dying out because of certain recognized defects, while the higher and more valuable type of the breed is year after year coming into wider use for work requiring strength, action and gentle intelligence.

The best type of the Clydesdale horse has considerable fetlock hair, but it is not of that dense kind, which, particularly in the forefeet, of the other type, causes a "hunchiness" neither beautiful nor useful.

I inclose a portrait of a first-class Clydesdale stallion, cut from the 1888 catalogue of Galbraith Bros. of Janesville, Wisconsin, for which I wrote to them two years ago.

If you will have the goodness to print this likeness in the PRESS, and reproduce alongside of it your illustration of Prince Arthur, the difference in the two types of the breed I have alluded to will be made plain, and you will confer a benefit on your subscribers. The stallion shown is Lord Lyndoch, foaled in 1884, the winner of four first prizes, one second and one third, all at important exhibitions, besides being highly commended at the Highland and

onned, though having been a great many years in this country without being directly interested in horses. I cannot pretend to know anything of the present condition of the Clydesdale horse-breeding industry except as a reader of published facts.

Dos Cabezas, Arizona.

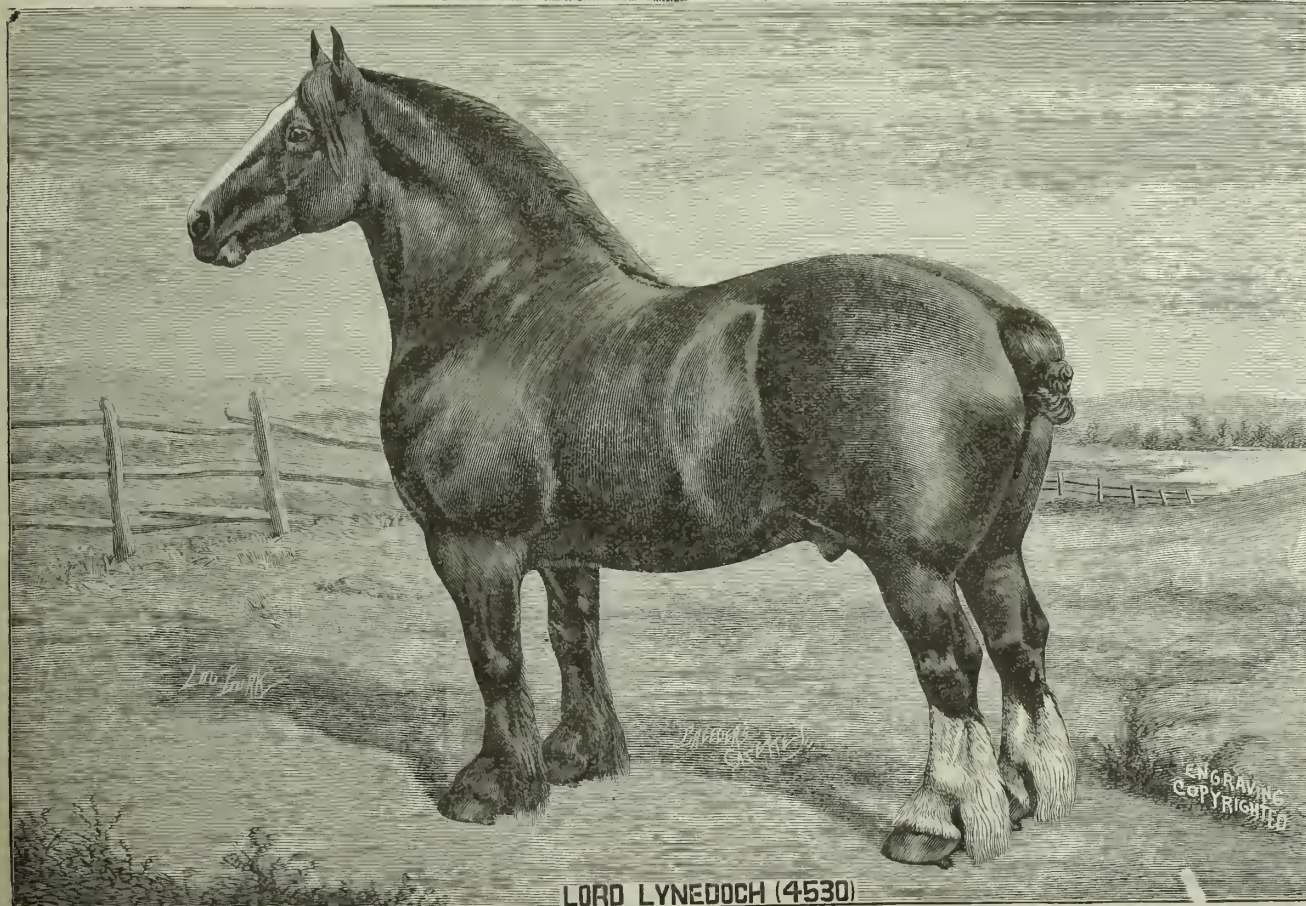
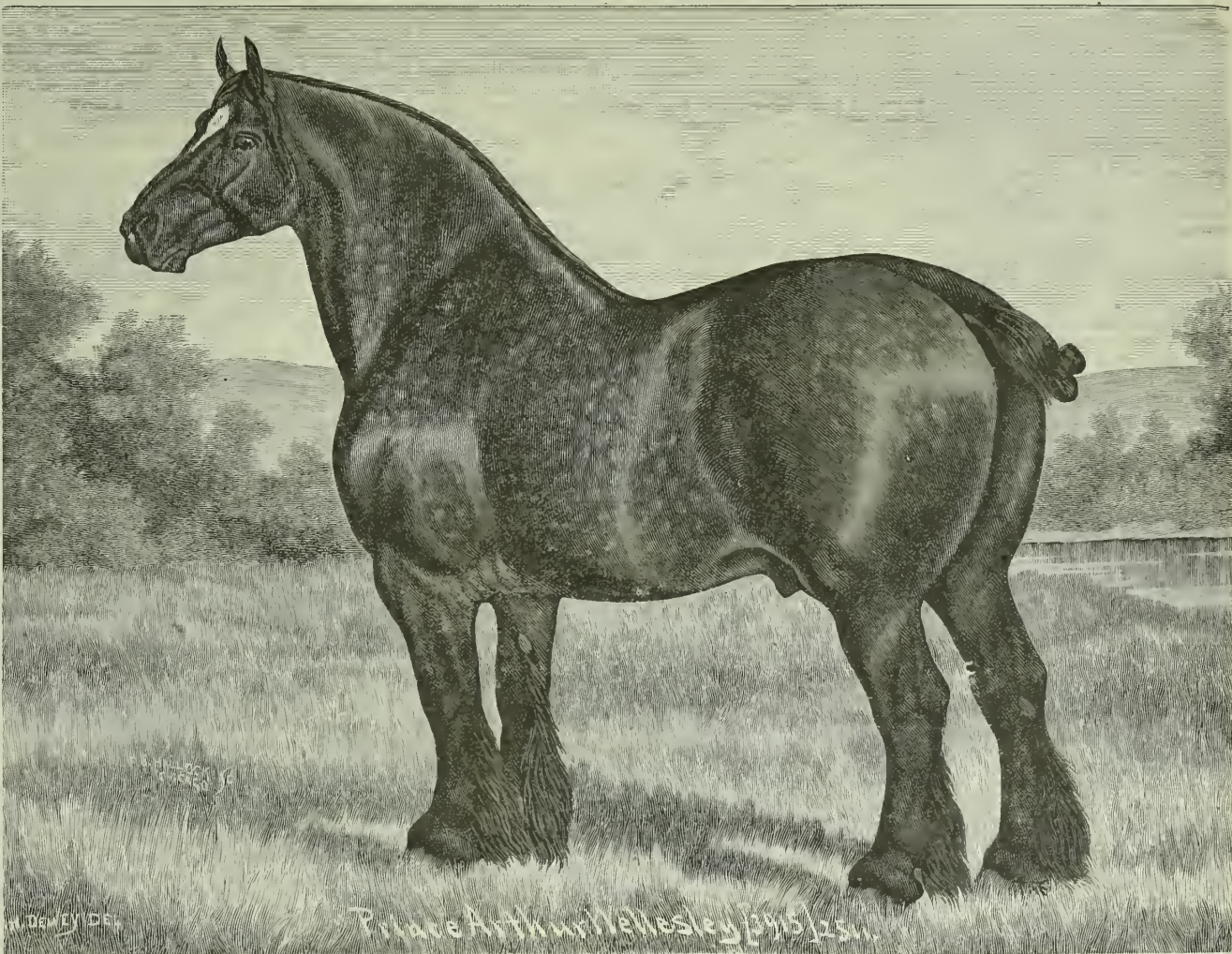
NEW LEICESTER SHEEP FOR OREGON.—We learn from the *Oregonian* that last week a band of new Leicester sheep arrived at that

## FARMERS' INSTITUTES.

### Farmers' Institutes in California.

EDITORS PRESS:—I note with pleasure that an effort is to be made to have Farmers' Institutes in California. This is a movement I have long looked for, and in a small way have labored for. Remembering, as I do, the vast good ac-

through Farmers' Institutes than any other State, and in a recent letter from Wm. H. Morrison, the superintendent of these Institutes, I am informed that "the farmers are just as anxious for the meetings to be held in their respective counties as they were when the movement was first inaugurated five or six years ago, and that the Legislature is just as willing to appropriate money to help along the Institutes as when the appropriation was first asked for." That the farmers and people gen-



LORD LYNEDOCH (4530)

TWO TYPES OF CLYDESDALE HORSES: WHICH DO YOU PREFER?

Agricultural Society's show at Glasgow in 1888. The portrait must have been taken and all the prizes won by the time the horse was four years and a half old. I know nothing of his subsequent history. [He secured first prize at the Great American horse show held at Chicago in November, 1888, as well as first prize for the special premiums awarded by the American Clydesdale Society.—EDS. PRESS.]

I have no interest in the matter except on public grounds. I am a native of Clydesdale (as the vale and slopes of the River Clyde are termed), and in my youth had occasion to handle good horses of that breed. I write therefore as not entirely ignorant of the subject dis-

port direct from England. The sheep, four in number, arrived in superb condition, and, although only a little over a year old, are monsters in size, and even a novice can see at a glance that it has taken years of painstaking breeding to produce an animal of this class. Captain Pope stated that his agent in England was instructed to spare no expense in getting the best and to make ample provision for their safe transit. The sheep stood the voyage around Cape Horn like veterans. They were raised by B. Painter of Barley, near Rutland, England, and are from a prize family of what is now known as the Dishley or New Leicester. The sheep will be sent to Reedville.

complished in other States by reason of such gatherings among the farmers, I feel assured that a great benefit will accrue to all who cultivate the land, especially if proper subjects are discussed. I mean that if an Institute is to be held in a county where fruit-growing predominates, give more attention to that industry than to any other; but do not neglect the others. If the meeting is held where the cattle industry prevails, tell the farmers how they can feed for profit, and demonstrate to them the need of a well-balanced ration when they are fitting their cattle for market, and so on through the list.

Perhaps Wisconsin has made greater progress

erally approve of the Institutes is attested by the crowds that attend and the interest manifested in them. When I was engaged in the work there, I was surprised at the number of farmers and business men who attended and took part in the discussions. Earnest, intelligent farmers would often travel miles and remain until the session closed, and then return home thirsting for more information.

From Wisconsin the idea of such meetings spread to other States, until now Illinois, Ohio, New York, Missouri, Iowa, Nebraska, Minnesota, and perhaps others, hold Institutes, which are largely attended and grow in interest with each session.

There may be some of my brother agriculturists who do not know what the object of the proposed Institute is or how conducted. If there be such, let me say that the object is to teach how to get more out of the soil than is now gotten, and at the same time, if possible, lessen the labor. To make this matter still clearer, let me say that the object of the Farmers' Institute and the Teachers' Institute is identical, the imparting of knowledge and the discussing of improved methods in all the various branches of agriculture. When a Teachers' Institute is announced for any county, note the eagerness with which the ambitious and successful teacher prepares for it, although it is well known that by reason of such meeting, the teacher will have harder work to perform if he desires to succeed in his chosen vocation; then the object of the Farmers' Institute is to better the condition of the farmer.

How are they conducted? Well that is a broad question, but if I am to answer, would say, first ascertain where the meeting is to be held; then consult some of the farmers in that section, learn what they are most interested in, and then prepare a programme for their case. Call in some of the farmers and let them write a short paper or give a short talk on their way of conducting their farm; what they do with their product, etc. For evening (for I suppose none would be satisfied with less than a two days' meeting) arrange for several pieces of music and have some of the ladies read essays on floriculture, home adornments or kindred subjects. Following the essays or talks at each meeting let there be a general discussion of each subject, and so have each one present help make an interesting and profitable meeting. To add to the interest a variety of subjects can be presented. In this way these Institute meetings will differ from ordinary farmers' meetings.

Several years ago, with a number of gentlemen from Illinois, Iowa, Wisconsin and Minnesota I attended a Farmers' Institute at Jackson, Tennessee, in which we discussed every conceivable topic relating to agriculture from



mules to cotton; "goosher" peas to butter; eggs to cheese, honey to poultry; wine to apples; flowers to bread baking; hog and hominy to possum and sweet potatoes, in fact, for the four days we were there, we were kept busy answering questions, and so important did the State Commissioner of Agriculture deem this meeting that he had stenographic reports made of it, which were printed and scattered broadcast over the State, and with good results as I have been informed.

In a multitude of counsel there is wisdom, and each farmer who is fortunate enough to attend an Institute can add his mite by asking or answering a question and thus add to the popularity and increase the value of the meeting. If you find Prof. ———'s name on the program, don't feel embarrassed if you have a question to ask. Remember that the professor is, after all, only a man, and he will be glad to help you, for he will realize that the very question you ask will help him.

The chief feature of success attending all the Institutes in which I have taken part has been the informal manner in which they have been conducted and the freedom felt by the farmers in asking and answering questions. Remember, Brother Farmer, the Institute is for your benefit, and it devolves upon you to study how you can get the most good out of it.

Last fall, the farmers in Tulare county held two Institutes, and judging from the reports in the local papers, they were highly successful and doubtless very beneficial to all who attended. They were rather primitive in their way, yet they awakened a desire for more, and I have no doubt but that the farmers of Tulare county would be glad to spend two or three days again in an Institute; their effort gave them an idea that they yet had much to learn, and that they could learn from one another.

From my knowledge of Institutes, as they were conducted in the East, I have great hope of an improved agriculture in this State, if we profit by the example others have placed before us; then let us, one and all, give the movement our earnest, hearty co-operation, adding whatever we can to make it popular and successful, recognizing the fact that we may gather benefits individually and that each locality favored by such meetings will be stirred up and benefited even as the individual farmer will be.

I consider it fortunate that Prof. E. J. Wickson, of the College of Agriculture, is to have charge of these Institutes, as he is an able, capable gentleman and fully aware of the benefit kindred Institutes have been to other States, and from the experience he has had since he became a resident of the coast will know just what subjects to provide for each county where a meeting may be held, in order to give the farmers help on the subjects that perplex them most.

R. P. McGILINCY.

Sycamore Ranch, Campbell, March 17 '91.

## AGRICULTURAL NOTES.

### CALIFORNIA.

#### Butte.

**A GIANT GRAPEVINE.**—Chico Chronicle-Record, March 20: Much attention was attracted yesterday by a monster grapevine which was placed in front of Camper & Costar's real-estate office. It was taken from Rancho Chico, in the vicinity of Chico Vecino. Just above the roots it measures 42 inches in circumference. It is considered quite a curiosity and will probably be sent to San Francisco or to the World's Fair in Chicago.

**TREE-PLANTING AT BANGOR.**—Bangor Cor. Oroville Register, March 19: A large number of fruit trees and vines have been set out by different parties, and among those who have planted are Gardner Osgood, who has set out 1000 trees, mostly peach and French walnut. Dr. Allen has set out a lot of orange and almond trees. J. C. Turner has put out 500 trees of different varieties. Colonel Racerby has planted 1000 apple trees; his land is high enough to produce very fine apples. L. C. Hyland has planted 400 peach trees. J. B. Smith has set out between 300 and 400 olive and peach trees. Rafter Bros. have planted some 500 trees of deciduous fruits, and at the German colony H. Henricca has set out during the winter between 300 and 400 fruit trees.

**DECLINE IN BUTTE COUNTY SHEEP INDUSTRY.**—Oroville Register, March 19: Sheep-raising in Eastern Butte is rapidly decreasing. Formerly there were thousands of sheep there are not hundreds at present. The quantity of wool brought to this town has rapidly fallen off and the flocks kept have decreased to a limited number. While this may seem a deterioration in one sense, yet it shows that the lands formerly devoted to sheep-raising are now being planted and improved. They are being cut up and set out to fruit trees and vines. Those who raise sheep in the future must do so as these animals are raised in the East, a limited number being kept on each farm, and not thousands of acres pastured by sheep alone.

#### El Dorado.

**MOUNTAIN ORCHARDS.**—Georgetown Gazette: All that portion of the middle slope of the Sierras reaching from Georgetown to Volcanoville, Onion Valley and Slab Creek with an altitude of from 3000 to 4000 feet, is destined to become a great apple growing region. Here and there are small orchards, planted when early-day mining camps were prosperous, from which no better apples on the Coast find ready

sale at highest figures in the markets below. Several parties have begun planting orchards in this region. The pear and plum also grow to great perfection; and the peach, strange as it may appear, does very well as high up as 4000 feet altitude. Last season we ate peaches grown at Onion Valley.

#### Fresno.

**CROP PROSPECTS IN FRESNO COUNTY.**—Fresno Republican, March 20: Farmers assert that this year's harvest of cereals in Fresno county will be the largest yet produced. Several causes unite to effect the result. Last winter was so rainy that much of the land prepared could not be seeded, and consequently it lay idle through the year. All the land thus lying idle was seeded this season, in addition to the acres worked last year, besides much new ground, consequently the present acreage of grain is very large. The cold and rainless weather which prevailed up to a short time ago prevented the grain from growing above ground, but the roots spread under the surface, and now that the weather is favorable grain is springing up rapidly and exceptionally heavy, a fact which promises a large yield to the acre. The rains since January have been sufficient to insure good crops, even should there be no rain henceforth, although such showers as have been falling lately would be welcomed in the early part of next month.

#### Lassen.

**EDITORS PRESS:**—The 11th Agricultural District, which formerly comprised the counties of Lassen, Plumas, Sierra and Modoc, has been divided by an Act passed by the present Legislature, creating District No. 30 of Lassen and Modoc counties. Plumas and Sierra counties still remain in, and constitute the 11th Agricultural District. Three years ago Lassen had the District Fair, which was held at Susanville, and was generally conceded to be the best fair, in amount of premiums and exhibits, held in the State that year, aside from the State Fair. Lassen will in all probability have the 30th District Fair this season, and judging from the great number of fine stock in Modoc and Lassen counties, and the present fine outlook for grain and fruit crops, have one of the best fairs in the State to be held this year.—H., Susanville, March 15th.

**SHEEP SHEARING IN LASSEN COUNTY.**—Susanville Advocate, March 20: There are 30,000 head of sheep being sheared at Amesee. Some 30 men are employed in the work. The wool will be placed aboard the cars and shipped direct to market. This will be an immense saving to the sheepmen, as the expense of freighting the wool from the mountain camps has heretofore been no small figure.

#### Los Angeles.

**ORANGE AND LEMON PLANTING.**—Pomona Progress, March 19: A prominent nurseryman says that 1500 acres are being set to orange and lemon trees in this valley this spring. Over \$70,000 worth of citrus trees have been sold in Pomona since December, at an average price of \$1 per tree.

**ENCOURAGING CROP ADVICES FROM ANTELOPE VALLEY.**—Rosemond Cor. L. A. Evening Express, March 11: The estimate that there will be two bushels of wheat and barley this year to one last, does not appear unreasonable. In addition to the immense acreage sowed to grain, there are many putting in trees and vines on land that has been thoroughly domesticated and followed by tilling it to grain for two or three years, and now the rain has come just in time to help them out. There will also be a greater diversity of agricultural crops this year than ever raised here before. When irrigated potatoes are \$1 per hundred in Los Angeles, the hard, smooth, mealy potato of this valley commands \$2 per hundred here. There will be considerable acreage in this valley put in alfalfa, beets, cabbage, onions, potatoes and other vegetable crops this coming month. The fact that beans do as well here as in Ventura will also stimulate several to put in small pieces of two to ten acres in a place. There appears to be great confidence now as to the profit to be made here in all the deciduous fruits, French prunes, peaches and apples being the favorites, with pears and apricots as next best. There was considerable fruit set in Palmdale, near the mouth of Rock creek, last year, which did nobly, and now they think they can ring the bell on Livermore on cherries and impale the productive Riverside on anything but the citrus family, and perhaps when their trees are as old they will give lovely Pomona a grand tussle on French prunes. On the north side of the valley C. F. Bean put out some prunes and other deciduous trees, and it would be a difficult matter to find trees in the State that have done better or will beat them in bearing. His trees will have to be supported to carry the crop this year. The same may be said of the orchard of Ernest Schrader of this place. The trees, vines and berries put out by L. E. Hillen, Charles Werth, Dr. Orndall and others have done nobly, and settled the proposition of fruit-raising and grape-growing to a dead and moral certainty in this portion of the State. Mart Glesser, four miles west of here, has his 40 acres of trees set and is now putting in his trees for wind-break and timber growth. He is devoting ten acres to timber, shade and ornamental trees. His grain has come up handsomely and will soon be high enough to hide a rabbit or coyote. The people of the Quaker colony are working early and late putting in more land to hay and getting their homes started, so they can accommodate their families soon. The colony embraces some 24 families

and comprises over 100 people, who will be a good acquisition to our sparsely settled country. Mr. Miller and several of his neighbors in Township 9 north, 15 west, have been successful with their trees and vines, and they will multiply their setting of trees many times this season. The same can be said of many of the farmers around Fairmount, Nenach and farther west.

#### Napa.

**CROPS IN NAPA COUNTY.**—Napa Register, March 20: There has probably never been a season more favorable to farmers and fruit and vine men than the present one. There has been an ample fall of rain, and a better opportunity for putting in grain and planting trees could not be had. People have taken advantage of this state of affairs and a large acreage has been put in. Fruit trees are already blooming and give evidence of an abundant yield.

#### San Diego.

**EDITORS PRESS:**—We have had our share of the big rain. It has done some damage by washouts on the California Southern railroad near here, on the San Jacinto river and in the picturesque Temecula canyon; also by filling our beautiful Elsinore lake, to overflowing, the water was brought up higher into our orchards and some of our best garden and alfalfa lands were flooded. And yet the rains have done many, many times more good than harm. We are now sure of good hay and grain crops, of which we have a much larger acreage than ever before. The rain also helped our young orchards and vineyards, and will almost guarantee a good honey crop, which is one of the good things of this county. We have grown good honey crops each of the last five years, and good fruit also. We do have milk as well, though this may not be the veritable "land that with milk and honey flows," while we live on the fat or fruit of the land.—L. Y. Elsinore.

**TREE PLANTING ABOUT SAN DIEGO.**—S. D. Union, March 18: A Union reporter visited several of the prominent nurseries and gained the somewhat astonishing information that over 600,000 fruit and timber culture trees had been planted since Jan. 1st in the vicinity of this city. Of these the Poway Valley nursery sold 65,000 deciduous fruit trees and not less than 40,000 eucalyptus, pepper and other shade and ornamental trees. The Sunnyside nursery sold 40,000 deciduous fruit trees, 75,000 citrus trees and not less than 150,000 timber-culture trees, of which latter number 100,000 were mulberry trees. The Sweetwater Company sold 105,000 citrus trees, 50,000 deciduous trees of many kinds and over 200,000 timber-culture trees. Other nurseries have also done a large business, and the probability is that the estimate of 600,000 as a total number of trees planted is not far in excess, if at all, of the actual number. The nurserymen say that the planting of citrus trees has not yet fairly commenced, and that a few weeks will see very large additions to the number now out.

#### San Joaquin.

**EXTRAORDINARY WHEAT.**—Stockton Independent, March 22: Lockeford region must be a very prolific one. Yesterday some prolific samples, 45 stalked wheat stools, from the ranch of D. J. Thomas, five and one-half miles southeast of Lockeford, were left at the Independent office. The smallest had 40 stalks, and two others had 71 and 83 respectively. Mr. Thomas has 30 acres of this wheat which came up after the October rains on ground that has been plowed twice. The wheat is the white Australian and is pretty certain to yield 30 bushels to the acre.

**WHAT CAUSED THE GREAT ADVANCE IN THE PRICE OF SHEEP.**—Stockton Independent, March 13: There has been a great advance in the price of mutton recently and people are at a loss to account for it. Butchers are now paying 9½ cents a pound for it at wholesale and have been notified that the price will be 10 cents next week. Butchers say the reason of the advance is that there was no fall or winter pasturage in California for sheep, and that as they are so much more expensive to feed than beef cattle, most of the flocks were driven into distant regions where they could graze on the wild ranges. In the early part of the drought, mutton became cheaper, as farmers desired to be rid of superfluous sheep. When the flocks were reduced to such as the owners could afford to feed at home, the price advanced, and now there are very few for sale except in the mountains, and buyers are invading Nevada. As the San Francisco market takes 3000 sheep a day, the buyers are going farther and farther away to get supplies. This drain upon one side and the receding flocks upon the other have made mutton almost a luxury and advanced it from the usual wholesale price of 7 cents to nearly 10, and the end is not yet.

#### San Luis Obispo.

**AN EARLY SEASON.**—Adelaide Cor. S. L. O. Tribune, March 20: The land is now in excellent condition to receive late seed and push early-sown grain. The grain is growing so fast that we can almost see the stalks springing up. I have been in San Luis Obispo county many years, and have observed the seasons; the average is far in advance of any previous season.

#### Santa Clara.

**FRUIT GROWERS IN SANTA CLARA COUNTY INCORPORATE.**—San Jose Herald, March 20: Articles of incorporation were filed yesterday in the Clerk's office, of the West Side Fruit Growers' Association of Santa Clara Valley. The purposes of the corporation are to buy and to sell green, dried, canned evaporated fruits; also

for the purpose of buying, owning and selling real estate for the purposes of its business, and of doing every and all other things pertaining to preserved fruit or other orchard products; also to can, evaporate or otherwise preserve fruit or other orchard products necessary or proper for the purposes above mentioned. The place of the principal business to be in Santa Clara county, and the term for which the corporation is to exist is 50 years. The amount of the capital stock is \$100,000, divided into 4000 shares of \$25 value each.

#### Solano.

**GRAIN CROP PROSPECTS AT ELMIRA.**—Vacaville Reporter, March 19: D. F. Parker of Elmira paid us a pleasant visit Monday. Mr. Parker has 1000 acres sown to grain this season and reports the prospects as being very good.

**ORCHARD AND GARDEN WORK.**—Winters Cor. Dixon Tribune, March 18: The orchard business is still extending. G. W. Hill is putting out about 50 acres of new orchard. J. H. Hill has put out about 30 acres this year instead of 15, and Mr. Griffin is setting out about 50 acres in addition to his old orchard. Work is pushing in the orchards. Pruning and spraying have been finished and now the plows and harrows are in diligent use. The soil is in fine condition, and farmers are beginning to take plants from the hot-house and set them in their places. J. H. Hill has already put out a large number of tomato plants and cantaloupes, which, with continued sunny weather, will soon bloom and bear. Others have just put their seed in the hot-houses.

#### Sonoma.

**LARGE TRAFFIC IN CALVES.**—Petaluma Imp. print: Buying calves looks like a small business, but in Petaluma it brings to the dairymen and farmers in this section about \$50,000 a year. There are five or six men or firms engaged in the business, and competition among them is so lively that often runners are sent outside of town to meet the farmers coming in with calves. It is a cash business. About 10,000 calves are sold here yearly, and they average about \$5 per head. During April and May the daily average is about 250 head. For the remainder of the season the business is not so brisk. The calves are killed here and dressed with their hides on and then shipped to the city.

**SONOMA VALLEY OLIVE OIL RECEIVES A FRENCH MEDAL.**—Sonoma Index-Tribune: Col. Geo. F. Hooper, who made an exhibit of Sonoma valley olive oil, olives and wine at the Paris Exposition in 1889, which attracted no little attention at the time, received a bronze medal direct from Paris. The medal was given for the excellence of his olive oil, which has been pronounced by French connoisseurs to be a very superior article.

**A STALLION FOR WASHINGTON.**—Petaluma Argus, March 21: Geo. P. McNear sold a three-year-old Pointman stallion to a party from the State of Washington for \$1000. This colt, although not a full blood, weighed 1900 pounds. A full brother to this colt went to the same section of county four years ago, and has become noted as a stock horse.

**GOOD FRUIT A NECESSITY.**—Healdsburg Enterprise, March 21: From interview with Wm. Van Allen, Healdsburg cannery: "Our people ought to tend their energies to the improvement of their orchards. Good fruit is always in demand, green, dried, or canned. I have none of my 1890 pack on hand, and if the market is favorable I will run my packing-house to its full capacity. But we must have the best fruit. Try to impress upon the readers of your paper that the success of the cannery trade depends upon the quality of the fruit sent to market. The day is near at hand when the raiser of inferior fruit will be like the man who fell from the balloon—not in it. By-the-by, the McKinley tariff raised the cost of my tin \$1.50 a box. How does that strike you? Is that helpful to horticulture?"

#### Sutter.

**SUTTER COUNTY LEVEES.**—Marysville, March 15: The case of The People vs. Char. Lucke came up in the Justice's Court in Yuba City yesterday. Lucke was charged with malicious mischief in having cut private levees belonging to George Behlman, four miles west of Live Oak, in Sutter county. The defendant's attorneys admitted the cutting, but denied that it was done maliciously. They claimed that the levee was a nuisance and that it endangered the property of defendant and his neighbors by closing the natural channel and forcing the water in another direction. Over 30 witnesses had been subpoenaed by the defendant, including the county surveyor, and the case was bitterly contested. The jury not agreeing, District Attorney Mahon says he will continue the case and carry it to the higher courts if necessary. The case is of much importance to Sutter county, particularly the northern part, as a great many levees and ditches have been built. If it is finally decided that Behlman has no right to maintain a levee, the system of drainage in that section is worthless, unless laws governing the same are passed. Lucke offers to let Behlman, the prosecuting witness, select three responsible men to inspect the premises and decide upon a proper manner of getting rid of the water on the south side of Behlman's field. There was a ditch which formerly carried the water off, but Behlman closed it.

#### Stanislaus.

**TREE PLANTING AT OAKDALE.**—Oakdale Leader, March 20: The season has been one of



unusual activity in tree-planting around Oakdale, principally because the Oakdale irrigation ditch will be completed this spring. The fever, however, is also extending out into the farming districts, and many of our ranchers are talking of putting in orchards and vineyards and irrigating them by means of pumps operated by gas-engines.

Tulare.

PORTERVILLE FRUIT NOTES.—Porterville Cor. Tulare Register, March 20: The method of planting orange trees, or rather the treatment of the trees, is changed. Heretofore the foliage has been left on, almost entirely. Brey & Lackey lost about one-third of their setting last year, which they are now replacing, but they clip every leaf off, thus throwing the entire strength of the growth to rootlets. Other trees, however, as Dr. Henrahan's and many others, never stopped growing from the time they were set out. L. J. Redfield is having a piece of ground prepared for oranges. On the west side of the railroad the country has been cleared of all undergrowth and a house erected on nearly every ten acres.

A CANNERY AT VISALIA ASSURED.—Visalia Times, March 20: Farmers in this vicinity can make their calculations for planting tomatoes, beans and sugar corn, being assured that they will have a home market for these products. The cannery is an assured thing, and will be in operation by the first of July next.

GRAPE INDUSTRY AROUND PORTERVILLE.—Visalia, March 12: There are extensive raisin vineyards set out and being planted around Porterville. Probably 1500 acres of land is now devoted to raisin grapes. There are several small vineyards that have been in bearing for two or three years. Oliver Henry last season and the year previous put up a number of boxes of raisins for which he found a ready sale at the going market price. The grapes grown here are of an extraordinary size and contain a large percentage of sugar. When the vineyards now planted come into bearing and the manufacture of raisins becomes a permanent industry, those boxes containing the Porterville brand will win a name second to none in the market.

Ventura.

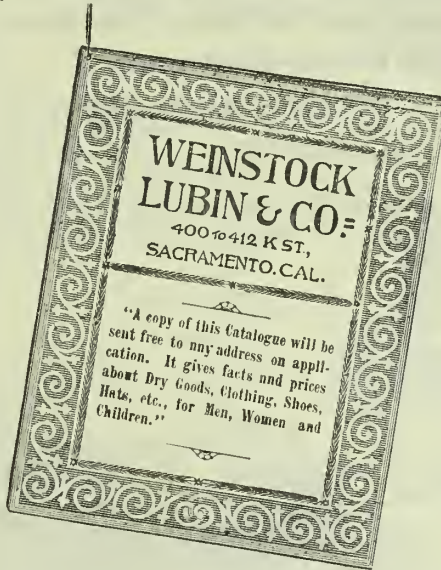
THE PROFITS OF WALNUT ORCHARDS IN VENTURA COUNTY.—Hollister Advance, March 20: The walnut orchards of Ventura county, according to reliable authority, yield their owners an average of \$100 per acre, year in and year out. A small-sized walnut orchard is a consummation devoutly to be wished.

NEVADA.

SHEEP HUSBANDRY THE COMING INDUSTRY. Virginia Enterprise, March 4: There are many great flocks of sheep grazing in Central and Eastern Nevada, but where there is now one sheep thousands will in a few years be seen. In regard to parts of Eastern Nevada the following by James Sampson, a well known sheep-raiser of White Pine county, taken from the White Pine News, is of interest: "In 1876 there were only 4000 sheep grazing within the borders of White Pine county, while at present there are 52,000 sheep grazing on its ranges, and just as soon as a railroad strikes the county, going west, there will be 300,000 sheep within the county. White Pine county is one of the finest grazing counties west of the Rocky mountains for both summer and winter ranges, for they join each other. Many stockmen in other sections have to travel 100 to 200 miles from their summer to their winter ranges, which makes it bad for some of the old stock and also for some of the young, and this takes off a good deal of the profit. I was talking to some sheepmen who are now grazing their flocks in Eastern Nevada, and they tell me they have to drive their sheep to the Central Pacific railroad in order to get their wool to market and save freight, and some of them are going to drive to Soda Springs, Idaho. In three years out of five, if a railroad were running through our county, we could ship mutton to market just as good as that fed in the East, but as it is, our sheep are not mutton when driven to the railroad. Mutton has never been better than at the present time on the range. Wm. Gregory, one of the oldest cattlemen in our county, and who has been a large owner, has sold his cattle and gone into the sheep business in Snake Valley. There is every indication that the sheepmen are the coming range kings. This is seen in California and other Pacific Coast States as plainly as here in Nevada." A California man says: "During the last five years the price of young mutton and lamb has been rising in price, not only in California, but everywhere in the East. The reason is very simple—it is because the production of mutton diminishes while the demand for consumption is increasing. In every State except Texas, agriculture chases away the sheep-raisers, who are obliged to reduce hands, while population increases regularly about a million and a half yearly. Never will the price of mutton be as low as formerly. It must go on increasing." Not only are sheepmen sure of good prices for mutton, but Nevada sheep-raisers are sure of good prices for their wool. Nevada wool already stands high in the Eastern market, and soon will be at the top, as the sheep-raisers of the State are sparing no pains in the improvement of their flocks by the introduction of thoroughbred rams. The cattle kings have had their day; soon the wool and mutton men will be crowned kings of the ranges.

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## THE VETERINARIAN.

## Can Bone Spavin Be Cured?

EDITORS PRESS:—I would like to know the pathology of bone spavin in the horse, and whether it is curable. Please answer in the Veterinary column of the PRESS.—SUBSCRIBER, Lake Co.

EDITORS PRESS:—Bone spavin consists of inflammation excited in the cuneiform bones of the hock or in the large metatarsal and cuneiform bones. No kind of hock is exempt from this disease. Bone spavin is a very common cause of lameness in the horse, and it is very important that a veterinary surgeon be a good judge of a hock, for what may be a spavin in one horse may be a mere peculiarity of conformation in another.

Bone spavin is really an exostosis on the inner and lower part of the hock, terminating generally in ankylosis of the gliding joints.

The reason why spavin appears on the inside, is due to the inner side of the limb being more under the center of gravity.

Spavin arises from causes both hereditary and local. The exciting causes are sprains of the ligaments of the joint and concussion of the bones.

Bone spavin as a rule is curable in the young and middle-aged animals.

The object of the operation that I perform for this disease is to excite the exudation of lymph, and thereby hasten the process of ankylosis between the cuneiform bones and hence remove the lameness.—A. E. BUZARD, Veterinary Surgeon, 11 Seventh St., S. F.

## THE NEW PREMISES OF THE OLIVER DITSON COMPANY.

The Oliver Ditson Company, so well known throughout the United States for its prominence as a center for musical publications, musical instruments and all else appertaining to the divine art of music, has lately perfected a movement which not only gives the Company additional room in which to carry on their constantly increasing business, but also one of the finest buildings for the purpose in the city. The premises were originally numbered 453 to 459 Washington street, and at the time of their construction, were occupied as a dry goods store by Churchill, Olchist, Smith & Co., the firm occupying the whole building. Later, changes have occurred, alterations were made whereby a number of parts became occupants of the same; those giving way to the alterations and changes which, in taking possession of the building, were found necessary for the new business to be conducted therein. As now arranged, there is but one main entrance to the structure, which opens direct into the retail department, where every facility for handling the immense quantity of music demanded by the constant influx of patrons is to be noticed and appreciated. The counters, shelving, and in fact all the woodwork of this floor is of chestnut, and gives a light, cheerful appearance, conforming with the ceilings and other surroundings, all of which are the best that experience could suggest. Near the elevators, which are directly in front of the entrance, is the office of Mr. Clarence Woodman, Superintendent of the store; and at the rear is the entrance to the express and mailing departments, which are convenient and of good size, and apparently all that is needed for this portion of the work of the establishment. On the floor above is the office of Mr. J. C. Haynes, and the counting room; also the piano forte saloon, in charge of Mr. S. A. Gould, recently of New York, which is one of the best in size, light and space to be seen anywhere, and which, in its fitting up, includes a suite of three parlors, carpeted, finely lighted, and otherwise made attractive, and in which parties purchasing pianos can have them tried, and thereby get the same tone and effects as they would on the floors of their own homes. From this floor, entrance is had to the second story of the building, in which the concert has been so long, and where will be found the publication department and the publications of the house arranged on shelves in this and stories above for immediate use as the retail and wholesale departments may require. On one side of the third and fourth floors at a little later date will be established the wholesale and retail departments of the large business of J. C. Haynes & Co., which, as is well known, is a branch of the Oliver Ditson Company, and which will, by this change, have excellent facilities for the display and sale of the various musical instruments carried in the large and general assortment of the house. On the fourth floor, which is admirably arranged to handle the great stock of music, is also the advertising room of the concern, which has been made very pleasant by neatly tinted walls and pictures, and which is presided over by Mr. J. C. Johnson; and on the upper story there is still more stock, all of which is placed for quick handling as may be desired. The whole building is lighted by electricity and fitted with electric bells, having sufficient power in the basement for all the wants of the establishment. Summing up it can be stated that the building has a frontage of 70 feet, is elegantly appointed from basement to top, and in the alterations made, care has been had to have convenience and comfort go hand in hand, so that in receiving goods, preparing them for sale and in meeting the demands from customers, the easiest and pleasantest methods for the accomplishment of the same have been secured, and cannot fail to meet the approval of both those who serve and those who are served.

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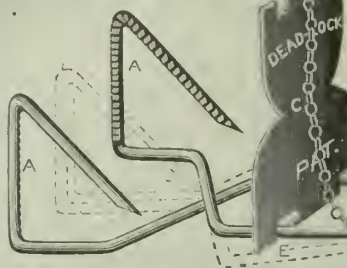
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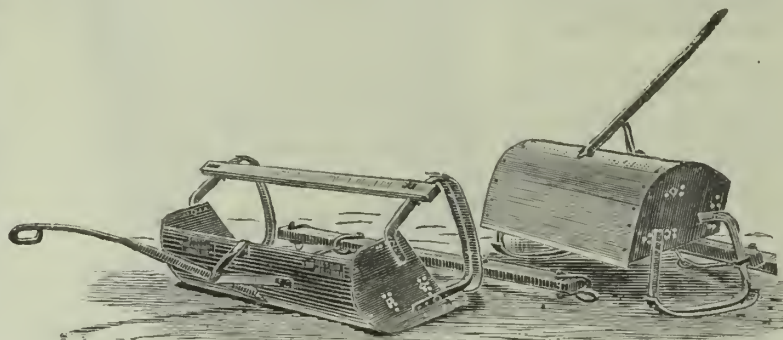
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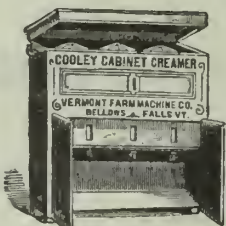
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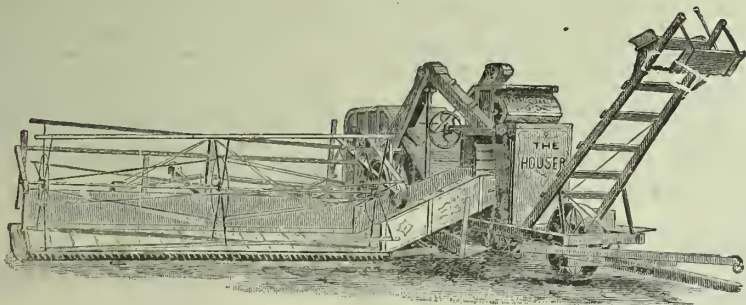
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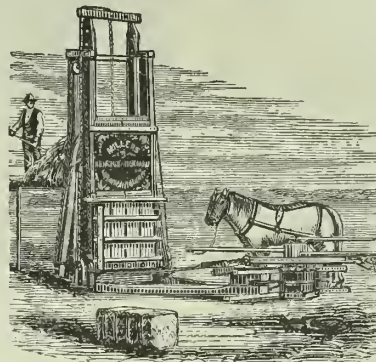
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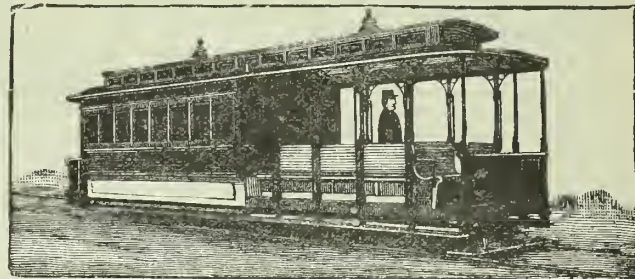


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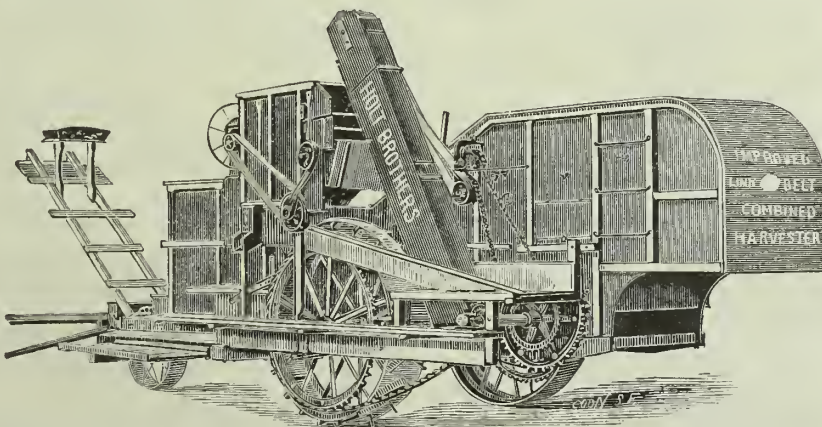
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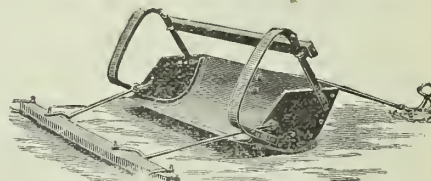
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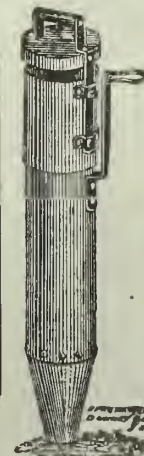
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Mention this paper. A. I. ROOT, Medina, O.



## The Southern Citrus Fair.

(Written for the RURAL PRESS by CLARA S. BROWN.)

(Concluded from last issue.)

## San Bernardino County.

The most striking exhibit in the pavilion is the great arch of Redlands, beneath which is a representation of the Bear Valley dam. This arch is 18 feet high and 43 feet wide, built against the gallery at the left of the stage. A very artistic design is worked out with citrus fruits on a black background amid which the letters of Redlands gleam brilliantly at night, lighted with incandescent lamps. Under the balcony are piles of rocks, imitating the canyon slides, connected by a dam of oranges over which a painting of the reservoir has been stretched, so as to render the illusion more complete. There is a graveled water-course bordered by green grass, through which a waste stream is trickling. In front of this are three large pillars of oranges and lemons grown by E. B. Cutts, H. H. Sinclair, E. J. Waite, Lewis Jacobs, F. P. Morrison, John Dostal and Chas. Rowe. On the tables in front are oranges shown by C. R. Paine and Dr. Wm. Craig, lemons by Dr. Watrous, prize olives by Dr. Wm. Craig, same by M. Wormer, olive oil by I. L. Hewitt, and a small lot of dried fruits entered by various parties. The adjoining ante-room is beautifully fitted up in black and gold as a reception-room for the many admirers of Redlands' elaborate exhibit. This locality has 3500 acres planted in citrus fruits.

Ontario's traction-car stands near the entrance, at the left of Duarte's mosque. The fruit used upon and within it is very choice, while the design is a taking one and natural size. Ontario people are much dissatisfied with the verdict of the Committee on Designs. Beside it is a table 32 feet long and seven feet wide, covered with Navel, Mediterranean Sweet, St. Michael, Malta and seedling oranges exhibited by I. C. Wood, Dr. McDonald, F. M. Hewitt, A. D. Moore, H. J. Rose and A. & H. C. Oakley. Eureka and Lisbon lemons are shown by E. M. Hatch (whose pyramid wins a first prize) and C. D. Adams; olive oil by Harwood and Woodford.

The next table, same size, is occupied entirely by the exhibit of W. H. Backus, Riverside, and his enterprise is rewarded by the first premium for individual exhibit of citrus fruits. In the center of the table a hank of fine raisins is adorned with the blue ribbon. It is a remarkable display for one person to make and causes one to regret that Riverside does not make the grand showing as a locality which she might easily have done. Oncomonga has a table under the east gallery, where oranges are shown by H. J. Loomis, Capt. W. A. Ray, A. Petesch and E. F. Henderson; lemons by Chas. T. Brown; and raisins by Dr. Henderson. An arch over the table is formed of one season's growth of grapevines—20 feet—on which is hung a card saying, "You may fool a man about soil, but you can't fool a grapevine." Dr. Henderson last year raised 13 tons of Seedless Sultan grapes from ten acres of vines six years old. Rialto has a fine bank of lemons and Navel oranges in the ante-room, over which is a banner inscribed: "Rialto, young and vigorous! Having the best of land with an abundance of water, in the heart of the best locality, grain and brawn will place Rialto in the front rank."

## San Diego County

Displays nearly 200 boxes of fruit in the west gallery, and on her conspicuous blue banner says, "San Diego county welcomes you." A very good fac-simile of the harbor, the curving shore and Point Loma has been made with oranges and sheets of glass. A ship laden with oranges is sailing up to a wharf where another vessel lies discharging her golden cargo. Mrs. H. K. Litchfield of Paradise valley contributes Mediterranean Sweeties; H. Lownsbury shows Sicily lemons; T. J. Swayne, mandarins; W. W. Whitney, Sweetwater, seedlings; J. S. Harbison (the pioneer beekeeper of California), lemons; Warren Kimball of National City, lemons and Washington Navel; F. A. Kimball, olive oil and seedling oranges; Mr. Schlenker, two plates of seedling lemons, yet unnamed, supposed to spring from the Bonnie Brae; Mr. Hale of National City, Bella Franca lemons; L. E. Allen & Son, guava jelly and orange marmalade; Mrs. R. H. Young, San Diego, large harp of smilax and limes; from Whitmore's ranch in North Chollas valley, limes, Bonnie Brae and Eureka lemons; from Maj. Chase, El Cajon, Mediterranean Sweet and Blood oranges; Christian and Barnes, El Cajon, Navel and paper-rind St. Michaels; Mr. Marshall, El Cajon, raisins. Jas. P. Jones, who lives one-fourth mile from tidewater at San Diego, has a beautiful place three years old on which he has raised oranges this season, 82 to a tree, that I can testify completely refuse the statement often made that good oranges cannot be raised near the sea. They are very sweet and fine grained. He also raises the Bellaire Premium lemon, which originated in Florida, and is thought to be a valuable accession to the lemon family, being uniformly ohlong, of medium size and with sweet rind.

## Santa Barbara County

Has made a most painstaking effort to show the peculiar capabilities of her soil and climate, and she has succeeded. A beautiful room has been made of the wide south gallery, opposite the great stage. It is quite unlike any other department of the fair in its appear-

ance and greatly attracts the Eastern visitors, who linger over the tropical plants and fruit in admiring wonder as they are assured that everything grew to its perfection out of doors. To many persons this is the most interesting part of the exhibit in the pavilion. The reward which Santa Barbara will reap for her enterprise is manifest by such remarks as this, from the enthusiastic lips of a gray-haired, comfortable-looking tourist: "Well, if you can grow such things as these right outdoors in Santa Barbara, I'm coming up there!"

The space has been transformed into a bower of tropical foliage. Tall banana trees of different varieties are there in blossom and in fruitage. Date palms show first the pretty flower about to burst from its gigantic sheath, then the gracefully drooping blossoms and the fruit in various stages. They are great curiosities to strangers and the story of their fruitage is interesting. The trees are male and female; the former produces the fertilizing blossoms and upon the latter is borne the fruit. The pollen from the male tree is borne by the wind to the blossoms of the female tree and fertilization takes place. Even if the male blossom is cut from the tree and carried a long distance, it retains its powers and will fertilize any female tree it is placed in.

Kinton Stevens of Montecito is a leading exhibitor. He has Eureka lemons, Chinese mandarins, sour oranges from Jamaica, grown at Montecito (they look much like large mandarins), a pile of large, nice-looking St. Michaels, French mandarins, tree tomato (perfect plum shape), golden banana of Tahiti, Cuban lady-finger banana, horse or Orinoco banana, wild date of Cape of Good Hope, white yams and pineapples. He also has a table full of young tropical trees in pots; among them are the mahogany tree, coffee plant, logwood, Spanish lime, Rose apple, Gum Arabic acacia, marmalade tree, tamarind, alligator pear, star apple, turpentine mango, bread fruit, cinnamon, silver tree, cardamom plant, the traveler's tree of Madagascar, etc., a very interesting collection. He shows the *Securidula* or Chaco plant, a new food plant from Samoa which appears to be of the summer-squash nature.

Other Montecito exhibitors are: A. Magee, two large baskets Eureka lemons; Charles F. Eaton, Eureka lemons (from trees not four years old), Strawberry guavas, Bergamot lemons, Mission olives on their branches, ripe bananas and Abyssinian banana tree; E. H. Sawyer, olives; Mrs. N. K. Wade, loquats; Goodrich and Johnston, San Ysidro winery, show translucent orange jelly, orange wine, pickled limes in cans, a pyramid of seedling oranges and a box of limes.

Carplinteria is represented by big walnuts from Russell Heath's orchard; seedling oranges shown by James Shepherd and Mr. Webster; a dish of shaddock, lemons, limes, Navel and Mandarin oranges, entered by H. C. Ford; sweet-rind lemons, sweet and Acaapulco limes shown by Mrs. M. S. Dimmick; seedling oranges, Japanese mandarins and limes from Eugene Knapp's orchard; mammoth Navel and Eureka lemons grown by P. O. Higgins; and Y. Ornelz exhibits shaddocks. Mrs. H. Y. Laughlin has handsome Sicily lemons.

Eliwood Cooper, besides his large exhibit of the famous olive oil from "Ellwood," shows a fine lot of Sicily lemons grown without irrigation, the hither orange of commerce, sweet limes and Chinese lemons.

Charles Hails of Cathedral Oaks has a basket of large Mediterranean Sweet oranges, several lots of Navel, and a tempting basket of big, hard apples, light-green in color. These apples, with the equally choice red ones shown opposite by Mr. Machin of Lompoc, are the finest displayed in the fair. Joseph Sexton of Goleta shows cherimoyas, Japanese persimmons, loquats, improved soft-shell walnuts and Grenoble walnuts.

Dr. I. B. Shaw exhibits Tahiti seedling oranges grown in the town of Santa Barbara, within 1000 feet of tidewater, as deep in color of rind as the Blood orange. G. C. Packard has native olives in bottles.

F. J. Barker shows lemons; Mr. Opdyke, imported mandarins. A. Hope Deeg of Mission Canyon has a nice pile of seedlings and Malta Blood oranges.

Dr. L. G. Yates covers a table with spotted orchids and other tropical plants. C. H. McKevett of Santa Paula shows pomelos and sweet Imperial limes; the latter are round like the orange and large as ordinary lemons. Taken all in all, the Santa Barbara exhibit is one of striking variety, and its interest is enhanced by the constant presence of representative men who never tire of explaining everything to the crowd that haunts the place. If such attention were paid visitors all over the building, it would benefit both the places advertised and the people in quest of information.

## Ventura County

Does not make much of a showing, though there is no doubt but she might have entered a creditable exhibit if she had decided to do so. Ojai Valley is the only place represented. A small table is covered with seedling oranges and lemons from the Topa Topa ranch. In the center are the most peculiar oranges in the building, marked "Ruby;" they are of medium size, and as dark red in color of rind as the rosiest apple, contrasting vividly with the pale yellow of the lemons against which they rest.

## Tulare County

Deserves credit for sending an exhibit which, though small, is exceedingly choice, and demon-

strates what can be done in that region, perhaps as well as a great quantity of citrus fruit would have done. She occupies a corner in the room at the right of the main entrance, and attracts much attention, both by the character of the exhibit and the story told by the inscriptions. The fruit is from Porterville and was grown by W. J. Prettiman. There is a pyramid of Mediterranean Sweet running 122 to a box and placarded thus: "Prof. Hilgard's official analysis of oranges."

	Rind.	Juice.	Sugar.	Acid.
Riverside Navel	30.0	41.42	7.14	.92
Porterville Oranges	23.7	55.1	11.73	.86

A pile of noble lemons runs 88 to a box, and cut ones show that the rind is thin and the pulp fine. A pyramid of Eureka lemons is placarded, "6000 lemons like these taken from six trees." Every one is astonished, for the lemons are large. Right here I heard a single note of dissonance in the universal song of praise that echoed throughout the building. "Come here," called paterfamilias to a young hopeful, "just see this! 6000 lemons like these from six trees!" "Oh," groaned the youngster, as he complied, "I'm tired of seeing so much of this kind of thing!" His tone was indescribable, and every one shouted. Over a pile of St. Michael oranges is the assertion in great letters, "Porterville citrus belt will make a better display in several years."

## Fresno County.

Fresno county makes but one entry, but that is so meritorious as to deserve special mention. The box of White Adriatic figs sent by M. Denicke is considered very superior and wins first premium.

From the superintendent of the fair I learned that 500,000 oranges and lemons were in the building, 250,000 having been used for decorative purposes. At this writing (Sunday) over \$5000 have been taken in at the ticket office, the attendance reaching nearly 10,000 on some days. As the fair remains open three days this week, besides on Sunday afternoon (at the request of workmen who otherwise could not see it), a handsome net profit will be realized. There is a movement in favor of exhibiting the designs in either Chicago or New York, provided that a guarantee fund of \$5000 can be secured. Crowds of Eastern people have viewed them here with delight, and the general cry is "Oh, if my friends at home could only see it!"

The leading merchants up-town are displaying citrus fruits in their windows.

It has not been ascertained why Orange county did not exhibit. Riverside gave as a reason for her defection at the last moment, disapproval of the artistic design competition. While it is an open question whether such creations with citrus fruits are really artistic, and certain that they have little to do with the main point of quality of fruit, they are certainly much more attractive to the public than a plain spread upon tables can be, and such fairs as these should be made to pay.

The opening address was delivered by W. A. Spaulding of the L. A. Times, who ably reviewed the history of orange culture in Southern California. Gen. N. P. Chipman of Red Bluff read an essay the following evening on "The Fruit Interests of California," which is pronounced a valuable addition to our horticultural literature.

Wednesday evening an address upon "The Selection of the Proper Localities for Citrus Fruits," by Prof. C. F. Eaton of Montecito, was read. Every afternoon and evening a fine concert is given by the Seventh Regiment band.

The first committee appointed to judge the designs gave up in despair, and Gen. N. P. Chipman, N. A. Rideout, G. W. Harney, R. W. Skinner and J. O.'Brien Jr. of the Northern Citrus Fair management, were chosen in their stead.

Mr. H. Jay Hanchette makes a very efficient superintendent, and with his assistants, Frank Wiggins and C. D. Willard, has been more than busy.

It is not the extremes of heat and cold so much as the sudden changes in temperature that cause certain climates to be unhealthy. When, however, the system is invigorated with Ayer's Sarsaparilla, these changes are rarely attended with injurious results.

## Complimentary Samples.

Persons receiving this paper marked are requested to examine its contents, terms of subscription, and give it their own patronage, and as far as practicable, aid in circulating the journal, and making its value more widely known to others, and extending its influence in the cause it faithfully serves. Subscription, paid in advance, 5 mos, \$1; 10 mos., \$2; 15 mos., \$3. Extra copies mailed for 10 cents, if ordered soon enough. If already a subscriber, please show the paper to others.

## A HOME INDUSTRY.

All who visited the State Fair at Sacramento last year had an opportunity to view the interesting display in the pavilion of Mohr & York, the well-known wholesale butchers and packers. This enterprising firm has now in Sacramento the finest packing house in the State. They have the most improved machinery for canning, soldering, etc., and turn out from 500 to 1000 cans a day. They employ a large number of hands and the enterprise, being exclusively a home industry, it unquestionably deserves the full patronage of all Californians in preference to Eastern manufactured goods. This firm is also a large manufacturer of of Fertilizers.

## ORANGE PLANTERS

Should read the advertisement of the Aloha Nurseries. The best varieties are offered at rates so low that no one need hesitate about planting for experiment, or for investment in places where the orange is known to thrive.

## Good News!

No one, who is willing to adopt the right course, need be long afflicted with boils, carbuncles, pimples, or other cutaneous eruptions. These are the results of Nature's efforts to "expel" poisonous and effete matter from the blood, and show plainly that the system is ridding itself through the skin of impurities which it was the legitimate work of the liver and kidneys to remove. To restore these organs to their proper functions, Ayer's Sarsaparilla is the medicine required. That no other blood-purifier can compare with it, thousands testify who have gained

## Freedom

from the tyranny of depraved blood by the use of this medicine.

"For nine years I was afflicted with a skin disease that did not yield to any remedy until a friend advised me to try Ayer's Sarsaparilla. With the use of this medicine the complaint disappeared. It is my belief that no other blood medicine could have effected so rapid and complete a cure."—Andres D. Garella, C. Victoria, Tamaulipas, Mexico.

"My face, for years, was covered with pimples and humors, for which I could find no remedy till I began to take Ayer's Sarsaparilla. Three bottles of this great blood medicine effected a thorough cure. I confidently recommend it to all suffering from similar troubles."—M. Parker, Concord, Vt.

## Ayer's Sarsaparilla,

PREPARED BY

DR. J. C. AYER & CO., Lowell, Mass.  
Sold by Druggists. \$1, six \$5. Worth \$5 a bottle

## MATTHIAS GRAY CO.,

206 POST STREET, SAN FRANCISCO

## STEINWAY.

GABLER-PEASE

AND

OTHER PIANOS

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ORGANS



## PACKARD Organs.

Importer of American and Foreign

Band Instruments, Accordions, Violins,  
Guitars, Sheet Music, Books, Etc.



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## UNION IRON WORKS,

SACRAMENTO, CAL.

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MANUFACTURERS OF

## Steam Engines, Boilers,

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## MACHINERY FOR MINING PURPOSES.

Flouring Mills, Saw Mills and Quartz Mills Machinery  
constructed, fitted up and repaired.

Front St., bet. N & O Sts., Sacramento, Cal

## NOTICE I

THE ANNUAL MEETING OF THE STOCKHOLDERS of the Grangers' Business Association, a corporation, for the election of a Board of Directors, and for the transaction of such other business as may properly come before it, will be held at 108 Davis street, San Francisco, at 10 o'clock A. M., Wednesday, April 8th, 1891.

I. C. STEELE, President.  
CHARLES WOOD, Secretary.

## HOME INDUSTRY.

If you buy

## Mohr &amp; York's

## CANNED (COOKED) CORN BEEF

You will get the best and at the same time benefit the producer.  
Also manufacturers of BONE DUST.

## C. L. HASKELL,

Wholesale and Retail Dealer In

HARNESS, SADDLES, BRIDLES, WHIPS,

SPURS, BLANKETS,

No. 10 Bush Street, and Market Street, one door below  
Battery Street, San Francisco.







# CALIFORNIA'S TRIUMPH!

A COMBINED HARVESTER

— FOR —

Horse Power or Traction Engine.

AWARDED FIRST PREMIUM

— AT —

California State Fair, 1890.



## Daniel Best's New Steam Harvester.

SHOWN AS AT WORK IN THE FIELD.

Improved for season of 1891 with all latest improvements, including Best's Peerless Grain Cleaner.

All sizes made to order, from 14 to 40 feet.

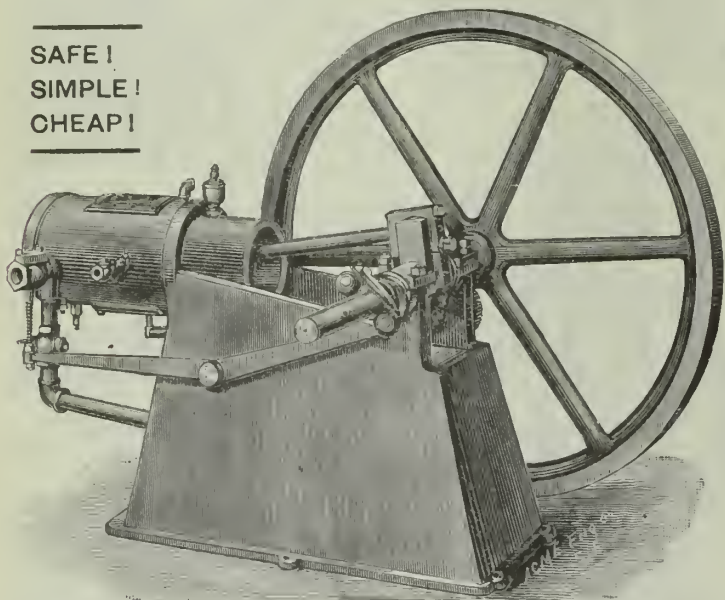
As a Steam Traction Harvester, Straw, Wood or Coal can be used for fuel.

These Steam and Horse Power Combined Harvesters were run successfully all last harvest, giving entire satisfaction in all ways in grain in every condition.

SEND FOR NEW CIRCULAR. For further information, prices, etc., address

DANIEL BEST, San Leandro, Cal.

SAFE!  
SIMPLE!  
CHEAP!



## REGAN VAPOR ENGINE.

NO BOILER. FIRE. EXPLOSION. STEAM, ASHES OR ENGINEER.

Started Instantly Without Even a Match. Will Run on Natural or Manufactured Gas or Gasoline. The Moment Engine Ceases to Run, all Expense Stops.

Upright and Horizontal, Stationary and Marine Engines from 3-4 Horse Power, Upward.

Our Engines are especially adapted for Pumping and Irrigating and Spraying Fruit Trees; in fact, for any use where power is required.

OVER 400 IN USE.

POPE & TALBOT, LUMBER, Office, 204 California Street.  
SAN FRANCISCO, Feb. 25th, 1890.

REGAN VAPOR ENGINE CO.—Gentlemen: The 4 H. P. Vapor Engine I bought of you last May has been in constant use ever since, and has given me entire satisfaction. I have found the engine to be all that you claimed for it, and more too. You can use my name for reference if you so desire. I am, yours truly,  
H. TALBOT.

We Carry Thos. Kane & Co's Famous Racine Launches, fitted with our New Compound Engines.

Send for Circular.

REGAN VAPOR ENGINE CO.,

221-223 First Street, San Francisco, Cal.

## Cheaper Than Windmills for Farmers!

Our Perfected "Safety" Engines Cost to Run only 1-3 Gallon of Gasoline per Horsepower per Hour. No Boiler, Fire, Smoke, Steam, Ashes or Heat. No Engineer, No License, No Danger. Single and Double Acting. 1/2 H.P. to 20 H.P.

GENTLEMEN—The 2-H. P. Engine received and set up yesterday. We attached it to part of the machinery in my shop, and it ran my Drill Press, a small Lathe, a large 24 inch by 14-foot Lathe, and a set of Emery Wheels, all of which it handled easily, to our great surprise. Yours very respectfully,  
J. B. HENDERSON.

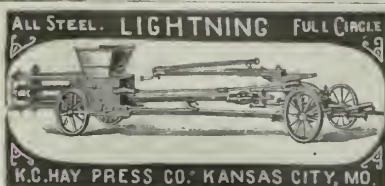
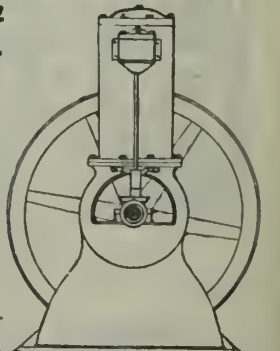
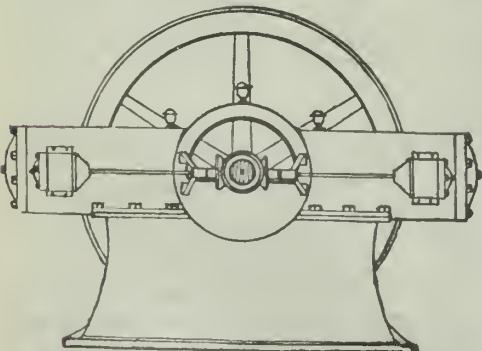
GENTLEMEN—I am satisfied, after running for over a month my Bean Cleaner, etc., with the 4 H. P. Engine you sent me, that it is much the best Gas Engine I have seen. The electrodes are certainly superior to all others; also your safety rotary slide valve, which is the personification of simplicity, positiveness and durability; I am satisfied it will develop much more power than we have need for. I also want a 3 or 4 H. P. for my wife and daughters to use about the house; we have a rotary clothes washer, can also do the churning, etc. I do not know of any better recommendation than to order a second engine. Respectfully yours,  
P. C. HIGGINS.

NOTE.—Both of these Engines were shipped to the parties named, and were set up by them solely by the diagram and printed directions we sent them.

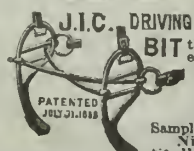
Pumping Plants, Yachts & Launches, Street Cars, Fire Engines, Water Works, Etc.

ELECTRIC VAPOR ENGINE CO.  
218 California St., San Francisco.

Complete Plants of all kinds, Stationary or Mounted on Wheels  
U. S. AND FOREIGN PATENTS.



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## SMEDBERG & MITCHELL, Insurance.

GEO. M. MITCHELL, W. R. SMEDBERG—314 California Street, San Francisco. Managers San Francisco Department New Zealand F. and M. Insurance Co., Auckland; Orient Insurance Co., Hartford City Agents Manchester Fire Assurance Co., Manchester; Caledonian Insurance Co., Edinburgh; American Insurance Co., Newark, N. J.



## The Armstrong Automatic PORTABLE ENGINE and BOILER.

The Best, Lightest, Cheapest Engine in the world. Can be arranged to Burn Wood, Coal, Straw or Petroleum. 5 or 8 H.P. Mounted on skids or on wheels.

TRUMAN, HOOKER & CO., San Francisco.



# List of U. S. Patents for Pacific Coast Inventors.

Reported by Dewey & Co., Pioneer Patent Solicitors for Pacific Coast.

FOR WEEK ENDING MARCH 17, 1891.

- 448,330.—DEVICE FOR CONTROLLING HORSES—E. J. Fraser, S. F.
- 448,348.—WINDMILL—E. L. Kenoyer, Hanford, Cal.
- 448,526.—WASHING MACHINE—Lamborn & Rickards, Dixon, Cal.
- 448,357.—CHAFF SEPARATOR FOR THRASHERS—G. E. Minges, Atlanta, Cal.
- 448,363.—PRUNING IMPLEMENT—Perry & Dixon, Santa Rosa, Cal.
- 448,366.—HORSESHOE GAGE—W. C. Price, Woodburn, Or.
- 448,369.—VAPOR ENGINE—D. S. Regan, S. F.
- 448,462.—BEARING BOX—Geo. St. Pierre, Oakland, Cal.
- 448,467.—WINDOW SCREEN—Frank Walker, Los Angeles, Cal.
- 448,394.—SEPARATOR—F. H. Wheelan, Santa Barbara, Cal.
- 448,287.—CABLE GRIP—Wood & Fowler, Los Angeles, Cal.

The following brief list by telegraph, for Mar. 24, will appear more complete on receipt of mail devices:

California—Nicklaus Anderson, Marysville, portable elevator; Newton M. Bell, S. F., manufacturing borax; William F. Bowers, S. F., swing hose reel; James Martin, Temescal, flower holder; Sidney W. Miller, Pasadena, flush tank; Ernest Najot, S. F., gas engine; Ernest L. Ransome, S. F., illuminating panel in concrete floors; John H. Wallace, S. F., switch stand. Oregon—Arthur Conklin, Grant's Pass, fruit dryer; Evan W. Jones, Portland, lathe for turning shafts.

NOTE.—Copies of U. S. and Foreign patents furnished by Dewey & Co., in the shortest time possible (by mail for telegraphic order). American and Foreign patents obtained, and general patent business for Pacific Coast inventors transacted with perfect security, at reasonable rates, and in the shortest possible time.

## Louden Haying Tools.

In our issue of Feb. 28th we gave an illustration of a hay-stacker manufactured by the Louden Machinery Co. of Fairfield, Iowa, whose haying tools were advertised in our columns.

It is simply a pole provided with fittings, which the company furnishes, and supported by guys in such a manner that a sling load may be lifted at one end of a large rick and dropped anywhere along its center in a broad thin flake which makes it quick and easy work to build a splendid stack.

The slings are made in several different styles and sizes to suit long or short hay, and can be used with a carrier in the barn, or to take the hay from the ground when brought in with a sweep-rake. A header wagon can be unloaded at two drafts with one of these slings. The manufacturers recommend them as being well adapted for handling the hay and headed grain raised on the Pacific Coast.

The company make a complete line of haying tools for either barn or field, and will be pleased to send their large illustrated catalogue to any one applying. Address Louden Machinery Co., Fairfield, Iowa.

## Really the Cheapest Paper of All.

Compare the PACIFIC RURAL PRESS with an established or well conducted agricultural weekly in the U. S., and you will find on considering its timeliness, pertinent and ably written articles, original and correct engravings, carefully and reliably prepared market reports, the absence of trifling and misleading puffs and quack notices so damaging for family reading—found in nearly all journals—and you can readily see that this paper is the cheapest, as well as the best, for all Pacific Coast farmers and their households at the low price of \$7 for FIVE months, or the same rate for 10, 12 or 15 months.

Consider such facts, friends, before going farther and faring worse.

## NEWSPAPER AGENTS WANTED.

Extra inducements will be offered for a few active canvassers who will give their whole attention (for a while at least) to soliciting subscriptions and advertisements for this journal and other first-class popular newspapers. Apply soon, or address this office, giving address, age, experience and reference. Special inducements to old agents.

DEWEY & Co., Publishers,  
No. 220 Market St., S. F.

## Haggin Horse Sale.

The annual horse sales of J. B. Haggin have now become a regular feature. The assurance one has that all stock offered will positively be sold, and to the highest bidder (no bye bidding being allowed), give to these sales a reliability and assurance of fair dealing. The offering this year is remarkable not only for its magnitude and the variety of the choice stock, all are bred and sold just as catalogued. This is an opportunity for any of our readers that may want a horse, mule or Shetland pony to get one of good breeding, and at auction prices. See advertisement elsewhere.

For the cure of colds, coughs, and all derangements of the respiratory organs, no other medicine is so reliable as Ayer's Cherry Pectoral. It relieves the asthmatic and consumptive, even in advanced stages of disease, and has saved innumerable lives.

Use "Dead Lock" Gopher Traps. They are the best. See advertisement in this paper.

## Our Agents.

OUR FRIENDS can do much in aid of our paper and the cause of practical knowledge and science, by assisting Agents in their labors of canvassing, by lending their influence and encouraging favors. We intend to send none but worthy men.

Geo. Wilson—Sacramento Co.  
J. C. Hoag—San Francisco.  
F. W. Knapp—Amador Co.  
GEORGE EVANS—Santa Clara Co.  
Mrs. M. E. Dudley—Ventura Co.  
W. U. Wadsworth—Sutter and Yuba Cos.  
ANDREW REID—Monterey Co.  
M. S. PRIME—Alameda and Contra Costa Cos.  
F. B. LOOAN—Sacramento, Cal.  
D. G. CLARY—Sonoma Co.  
E. L. RICHARDS—San Diego Co.  
O. N. CADWELL—Carpinteria, Cal.  
S. S. SAUL—Fresno Co.  
B. F. BELT—Shasta Co.  
E. H. SCHARFFLE—Central California.  
A. S. COOLEY—Tehama Co.  
H. C. HENKLE—Capay Valley.  
SAMUEL CLIFF—Creston, Cal.  
JOHN SIMPSON—Oregon.  
WM. M. HILLERY—Oregon.  
WM. HOLDER—Oregon.  
WM. OLSON—Washington.

## EVERY FARMER SHOULD KNOW

All about the Horse, his diseases, and how to cure them; all about Buggies, Carriages, etc., and where to buy them. The "Complete Horse Book" tells all this. Send 10 cents, silver or stamps, to Pioneer Buggy Co., Columbus, O.

## FOR SALE!

PINOLITO OLIVE RANCH!!

## FORTY-SIX ACRES OF HILL LAND

In the Town of Auburn, Placer Co.

Red soil, superimposed upon upturned, friable, decomposing slate, yielding iron and alumina, thus furnishing a soil which, as Prof. Hilgard said after his analysis, will retain moisture, will not require irrigation, and will not allow the vegetable mold to leech away; thus suited to the growth of fruit trees, especially the olive, as has been demonstrated both by the remarkable growth of the tree and the yield and the quality of oil.

It is situated only 15 minutes walk from Auburn Station—the C. P. R. R. passes along one side—and is a less distance from the Court House. Thirty acres improved and planted to olives, set at long distances for permanent growth, and other fruits planted between the rows for temporary profits, mostly peaches of three best varieties, ripening in succession; prunes, mostly Petite; plums of several varieties, as Kelsey, Japan, Shropshire Damson, etc.; figs of several best varieties; a few apples, nectarines, blackberries, etc. Two acres of table and raisin grapes, never irrigated, the vines remarkably vigorous and in full bearing. The trees, especially the 1500 olive, have all been planted with regard to permanency. About one-half of them have an orchard growth of seven years; fruited last year 300 pounds, this year nearly one ton. They are mostly Mission and Piccoline, with a few trees of other choice varieties. Two crops of the olives have been pressed. The yield has been, for the first press, 14 per cent of very clear delicious table oil, and four per cent from the second press—the Piccoline yielding this, of a peculiarly clear, nutty oil.

There is on the ranch a few acres of grain sown for hay; two acres of well-set alfalfa, below the Auburn ditch, which crosses one corner of the property; also a small house of four rooms and a kitchen; a well of good water; a small barn; a strong, permanent spring of soft, cold water, which wells up through the slate; a two-inch iron pipe connects the spring with an iron-bound 20,000-gallon tank, situated on a beautiful pine clad hill, 40 feet above the spring, a point which overlooks the town and gives very charming distant views, and is one of the most lovely sites for a residence to be found. The water is pumped to the tank by a duplex pump; the power, a four-horse steam engine, which furnishes power sufficient to pump, saw wood, run an olive crusher and do all needed shop work.

The land is all suited to fruit, excepting along a rocky ridge, which furnishes three very desirable residence sites, and the olive, set promiscuously, thrives finely among the rocks. The property can be conveniently divided along a sag which separates two of the high knobs, and water from the spring can be pumped to each of them.

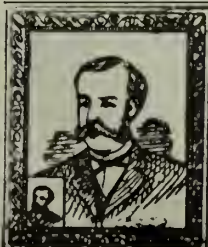
This desirable property is now offered for sale for less than the improvements cost. The land is fenced, the title good and unencumbered. It is connected by a roadway, which is one of the improvements made, with one of the principal streets of Auburn.

The sale will convey the entire plant, furniture in the house, all utensils, etc. If sold before April 1st the sale will include the coming crop. If later, the crop will be reserved, unless otherwise by special agreement. If desired, one-half the purchase money can remain five years, secured by mortgage at eight per cent. For price and any further information desired, address

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And at the same time to extend our business and make new customers, we have decided to make this SPECIAL OFFER: Bring or send a picture of yourself, any member of your family, or friend, living or dead, and we will make you a LIFE-SIZE PORTRAIT FREE OF CHARGE, provided you will have it suitably framed by us, exhibit it to your friends as a sample of our work, and use your influence in securing us future orders. Place name and address on back of picture and it will be returned in perfect order. We make any change in picture you wish, not interfering with likeness. References, Wells, Fargo & Co's Express or any Bank in Sacramento.

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—OF—

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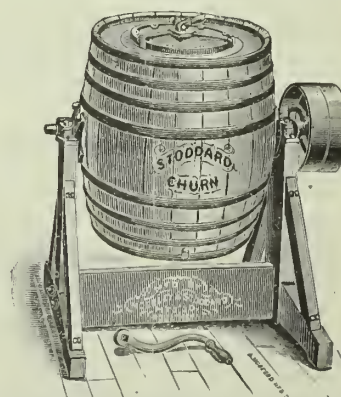
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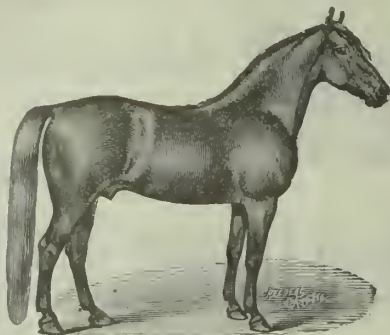
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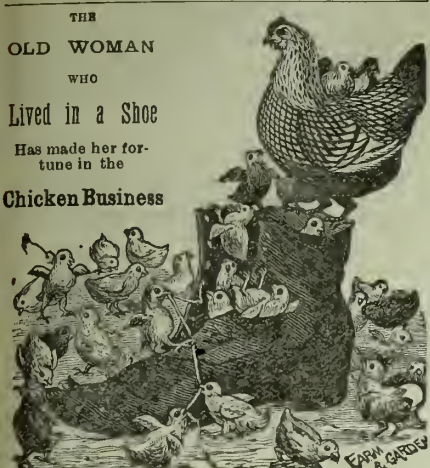
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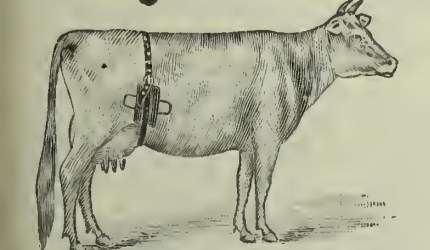
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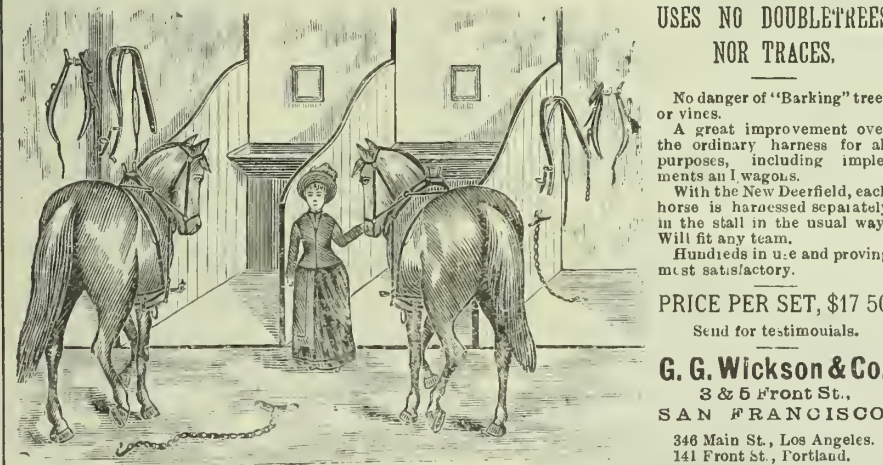
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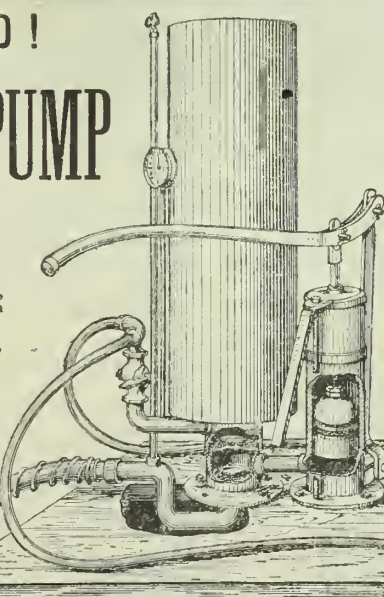
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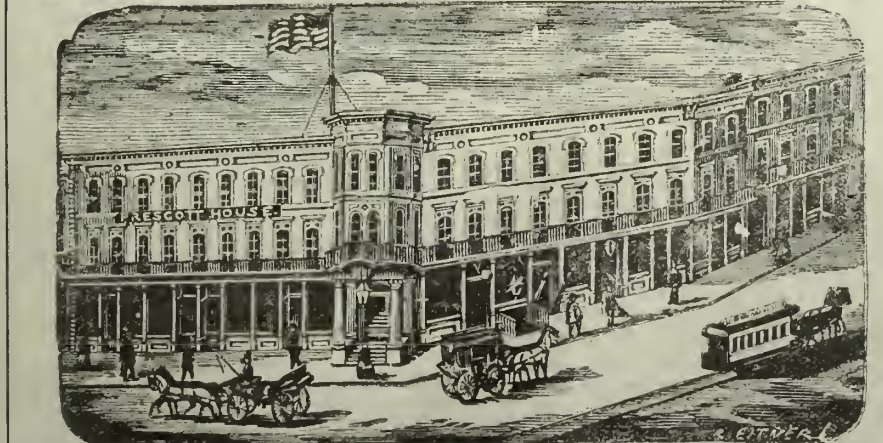
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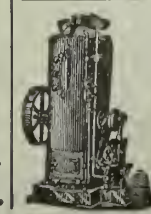
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 2 & 3 HORSE-POWER.  
 Write for Prices.  
**TRUMAN, HOOKER & CO.,**  
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## S. E. MARKET REPORT

## Market Review.

## DOMESTIC PRODUCE, ETC.

SAN FRANCISCO, March 25, 1891.

The weather continues all that can be desired for growing crops, and as prices for products are expected to rule fairly high, a more confident feeling manifests itself among all classes. The money market is growing easier. In cereals the market shows more strength in wheat. The Eastern and foreign wheat markets are higher. The following is to-day's cablegram:

LIVERPOOL, March 25.—Wheat—Less active. California spot lots, 8s 5½d off coast, 4½d; just shipped, 40s 3d; nearly due, 4½d; cargoes off coast, strong; on passage, less active; Mark Lane wheat turn dearer; English country markets, generally dearer; French, firm; wheat and flour in Paris, quiet.

## Liverpool Wheat Market.

The following are the closing prices paid for wheat options per cwt. for the past week:

	Mar.	Apr.	May	June	July	Aug.
Thursday.....	88½d	88½d	88½d	88½d	88½d	88½d
Friday.....	88½d	88½d	88½d	88½d	88½d	88½d
Saturday.....	88½d	88½d	88½d	88½d	88½d	88½d
Monday.....	88½d	88½d	88½d	88½d	88½d	88½d
Tuesday.....	88½d	88½d	88½d	88½d	88½d	88½d

The following are the prices for California cargoes for off coast, nearly due and prompt shipments for the past week:

	O. O.	P. S.	N. D.	Market.
Thursday.....	41½d	40½d	41½d	Steady.
Friday.....	41½d	40½d	41½d	Continental demand
Saturday.....	41½d	40½d	41½d	Turn dearer.
Monday.....	41½d	40½d	41½d	Active higher.
Tuesday.....	41½d	40½d	41½d	

## Eastern Grain Markets.

The following shows the closing prices of wheat at New York for the past week, per bushel:

Day.	Mar.	Apr.	May	June	July	Aug.
Thursday.....	111½	109½	108	105½	101½	101½
Friday.....	111½	109½	108	105½	101½	101½
Saturday.....	111½	109½	108	105½	101½	101½
Monday.....	111½	109½	108	105½	101½	101½
Tuesday.....	111½	109½	108	105½	101½	101½

The closing prices for wheat have been as follows at Chicago for the past week, per bushel:

Day.	Mar.	Apr.	May	June	July	Aug.
Thursday.....	101½	100	99½	99½	99½	99½
Friday.....	101½	100	99½	99½	99½	99½
Saturday.....	101½	100	99½	99½	99½	99½
Monday.....	101½	100	99½	99½	99½	99½
Tuesday.....	101½	100	99½	99½	99½	99½

NEW YORK, March 25.—Wheat—\$1.12½ for May, \$1.10½ for June, \$1.08½ for July, \$1.03½ for August and \$1.04½ for December.

CHICAGO, March 25.—Wheat—\$1.04½ for May and \$1.02½ for July.

## Weekly Weather Crop Report.

WASHINGTON, March 21.—The weekly weather crop bulletin issued by the Signal Service says: The cold weather continued during the week generally throughout the Northern States, over which the ground is generally frozen and spring work delayed. In the Northwest the ground generally is covered with snow, which is disappearing rapidly and which will furnish sufficient moisture in the spring wheat region to assure an excellent start for the crop. The weather was favorable throughout the fall wheat region, over which the conditions are reported as favorable and the prospects excellent. In New England the weather is unfavorable for sugar making, but favorable for fruit, the latter conditions extending over the fruit regions of the Middle Atlantic States.

## Grain Supply.

NEW YORK, March 23.—The amount of grain in store and afloat Saturday, March 21st, as compiled by the New York Produce Exchange, is as follows: Wheat, 23,012,000 bushels, an increase of 113,000; corn, 2,970,000 bushels, an increase of 250,000; oats, 2,810,000 bushels, a decrease of 6000; barley, 1,435,000 bushels, a decrease of 380,000.

## English Hop Market.

London Farmer, March 9.—Consumers are still confining their attention to the middle-class Continental and the various grades of Californian hops, native produce being neglected in all cases, excepting where holders are prepared to take the lower rates offered through the medium of merchants, who continue to maintain the same unyielding attitude which they assumed four or five weeks ago, and which growers and their factors have been trying in vain to break down. The market, therefore, so far as concerns English hops, is in a lifeless condition, and holders will probably deem it expedient not to attempt to sell just yet. The limited quantity of hops in the hands of merchants and those held by planters must, it is argued, have a hardening effect on values as soon as the brewing trade revives; and another sign favorable to those who take this view is the fact that importations continue light in comparison to previous seasons. The recent dry, mild weather has enabled planters to make considerable progress in field work, and the operation of plowing up and cutting is now in full swing.

## Eastern Wool Markets.

NEW YORK, March 21.—Domestic wool shows a light condition of stocks. Best buyers at this point seem well supplied ahead, though they still stop around for possible bargains. Foreign wool is active; sales, \$50,000 pounds, mainly Cape and China, on private terms. California is scarce here, and eastward prices are generally firm. Boston sold 2,500,000 pounds, two-fifths of which were foreign, chiefly Australia; 50,000 pounds Spring California on private terms. It is noted that domestic washed fleeces are pushed aside by desirable Australian and the outlook is that they will be more or less neglected until attractive blending foreign is out of the way. Scoured wool was active, 250,000 pounds selling from 40¢ to 75¢. The latter price is for Australian lambs. Philadelphia advises say that the stock is so small it must pass into the consumers hands before the new clip is here.

## Dried Fruits.

NEW YORK, March 21.—The raisin market feels a degree of good impression by the late volume of business in bags. General prices are more con-

dent in tone, but not advanced. In fact, sellers would readily welcome another visit of round buyers of raisins or, for that matter, of all dried coast fruit with a fair guarantee of favorable rates for prompt distribution. Layers are quoted at \$1.60 to \$2; boxes, three crown, \$1.25 to \$1.50; mixed, marks two crown, 80¢ to \$1; bags, 4¢ to 5¢. The latter must favor the grocery use. Prunes are weak, though selling fairly. Four sizes of boxes at 10¢; ungraded, bags, 9¢. Apricots quiet at 14¢ to 16¢. Evaporated unpeeled peaches are unchanged.

## Hops.

NEW YORK, March 21.—There is not enough business in hops to prevent their accumulation. There has been some speculative sentiment on change but it was not of an impressive form. Home buyers in some instances obtained top grades at 29¢, and good old, 28¢. The range from common to best is 22¢ to 30¢; selected Pacifics, 31¢; California old, 5¢ to 10¢. English advices are indefinite. Exports for the week are 638,000 pounds. In New York a sale was made of 367,000 pounds.

## Local Markets.

	Buyer Season.	Seller 1891.	Buyer 1891.	Seller 1891.
Thursday.....	133½	133½	133½	133½
Friday.....	136½	136½	136½	136½
Saturday.....	135	135	135	135
Monday.....	136	134½	106	104½
Tuesday.....	134½	133½	104½	104½

	Buyer Season.	Seller 1891.	Buyer 1891.	Seller 1891.
Thursday.....	150	150	149	149
Friday.....	150	150	149	149
Saturday.....	150	150	149	149
Monday.....	150	150	149	149
Tuesday.....	150	150	149	149

## add local markets

BAGS—The market is essentially unchanged at 7½¢ to 7¢ May-June delivery, for standard size.

BARLEY—The local sample market is fairly strong at full prices. The bears are still trying to break prices. The season is backward. New is not expected to come in in quantities under three months. On Call trading in futures has been quiet. The following are to-day's Call Board sales:

Morning Session: Buyer 1891—100 tons, \$1.32½; Buyer season—100 tons, \$1.32½; 400, \$1.32; 100, \$1.31½; 200, \$1.31½. August—100 tons, \$1.06; 100, \$1.05 ½¢.

BUTTER—Receipts are free as is the demand. With April, receipts are expected to show larger gains and as the outlet will be more limited many dealers look for lower prices; if not lower there will be no improvement. By that time if prices go off, it is quite likely many dairies will pack their surplus.

CHEESE—The market is barely steady. Receipts are only fair for the season.

EGGS—Receipts of 12,600 dozen Eastern are reported. The market for Californian after advancing slightly is a shade easier at the close. It is said that there are considerable in store for the Easter demand.

FLOUR—Millers and their agents have made another advance in prices. Owing to comparatively little outside flour coming in, the outturn of the leading mills is readily placed.

WHEAT—The market for sample parcels shows a slight gain in prices, in sympathy with better prices abroad. A press telegram reports that a corner is being run at the East. In futures, trading on Call has been light. The following are to-day's Call Board sales:

Morning Session: Buyer 1891—300 tons, \$1.51½; 700, \$1.51½; 1300, \$1.52. Buyer season—100 tons, \$1.50½. Buyer 1891, after August 1st—100 tons, \$1.48½; 1100, \$1.49 ½¢. Afternoon Session: Buyer 1891—100 tons, \$1.51½ ½¢.

## Market Information.

## Produce Receipts.

Receipts of produce at this port for the week ending March 24th, were as follows:

Flour, gr. sks.....	170,437	Middlings, sks.....	3,188
Wheat, cts.....	345,126	Alfalfa, ".....	250
Barley, ".....	31,517	Chicory, hbbs.....	50
Rye ".....	455	Broomcorn hbbs.....	44
Oats ".....	7,312	Hops, hls.....	224
Corn ".....	1,825	Wool, ".....	2,576
*Butter ".....	1,100	Hay, tons.....	28
do hxs.....	66	Straw ".....	299,461
do hhs.....	135	Wine, gals.....	6,955
do kegs.....	83,440	Brandy, ".....	500
do tubs.....	12,600	Raisins, hxs.....	31
do ½ hxs.....	426	Honey, cs.....	158
†Cheese, cts.....	675	Walnuts, sks.....	85
do hxs.....	135	Flaxseed, ".....	325
Eggs, doz.....	83,440	Mustard, ".....	25
do " Eastern.....	12,600	Almonds, ".....	263
Bans, cts.....	4,728	Peanuts, ".....	
Potatoes, sks.....	24,503	Pocorn, ".....	
Onions, ".....	1,005	Beet sugar, hbbs.....	
Bran, ".....	15,162	do do sks.....	
Buckwheat ".....			
*Overland ".....			
†Overland 171 cts.			

## Cereals.

Mark Lane Express, March 9: A well-known authority regards our total of wheat in view for the future as 1,500,000 qrs. smaller than at this time two years ago. Present holdings of wheat by English farmers are reckoned by the current number of Dornbusch's List at 3,976,935 qrs. and of the Miller at 3,936,370 qrs. As both these authorities have arrived at a closely similar conclusion, without taking any of the other's figures or even working on the same basis, it may be said that there exists a strong presumption in favor of the view that present holdings of farmers are slightly under 4,000,000 qrs. This, with supplies afloat and in granary, will make a little under 8,000,000 qrs. for the second half of the cereal year, whereas 13,000,000 qrs. will be required. A total of 5,000,000 qrs. of wheat and flour have, therefore, still to be procured from abroad, and the sense of this task having to be accomplished, is the root of the stronger and more active feeling now animating the trade. With respect to the French wheat crop, a good deal of excitement continues to be manifested; and in the course of a discussion in the French Chamber of

Deputies on Monday evening, M. Meline stated that out of 17,000,000 acres of agricultural land, nearly 5,000,000 had been a prey to the frost, causing a loss of 80,000,000 or 100,000,000 francs; that to prevent a deficit of 40,000,000 or 50,000,000 bushels of wheat the fields would have to be resown, as also other fields, for spring sowing never yielded much; and that farmers must be encouraged to make a great effort.

London Agricultural Gazette, March 9: The wheat crop of India is now moving freely to the western seaboard. In the Argentine Confederation the wheat crop is still well spoken of, and up to the present 150,000 qrs. have been shipped for the United Kingdom, a quantity much in excess of that shipped last year at corresponding date. The wheat crop in Victoria is now said to be the largest on record, yielding an average of nearly 15 bushels per acre, and affording a surplus for export of 1,250,000 qrs. The Melbourne Chamber of Commerce has called a statement to the effect that the average weight of the crop is 64 pounds per bushel. The wheat crop in New Zealand is stated to have received less damage than was at one time supposed.

To J. R. Dodge, Statistician Department of Agriculture, we are indebted for the following:

The proportion of wheat still in the hands of farmers is lower than an average of the last ten years, the range being from 26 to 33 per cent. It is 28.2 per cent, or 112,000,000 bushels. It has been lower only in two years of the last ten, after the meager crops of 1881 and 1885, which were smaller than that of 1890. Including the visible stocks, the supply is 135,000,000 bushels. The consumption of the last 12 months is estimated at 299,000,000; seed used 53,000,000, and the exports have been about 98,000,000 from March 1, 1890. Half of the present stocks of the Northwest will be required for spring seeding.

Years.	Crops of previous years.	In farmers' hands Mar. 1.
1891.....	399,262,000	112,000,000
1890.....	490,660,000	156,000,000
1889.....	415,868,000	112,000,000
1888.....	456,329,000	132,000,000
1887.....	457,218,000	122,000,000
1886.....	357,112,000	107,000,000
1885.....	512,765,000	169,000,000
1884.....	421,086,160	119,000,000
1883.....	504,185,400	143,000,000
1882.....	388,280,090	98,000,000
1881.....	498,549,868	145,000,000

An unusually large proportion of the wheat crop is required for consumption within the county, a smaller proportion being shipped. This year more than half is estimated to remain within county lines, as follows: Crop 1890, 399,262,000 bushels; consumption, 208,149,060; exportable surplus, 191,112,940. The average weight per measured bushel is 57.2 pounds. The average of 1889 was 57.7 pounds, which was the precise average of seven crops from 1883. In bushels of 60 pounds the aggregate is 381,000,000, or 90,000,000 less by weight than the preceding crop. The following statement gives the number of measured bushels, average weight, and number of bushels of 60 pounds each for nine years past:

Years.	Weight per bu.	Measured bushels.	Weight in pounds.	Bushels of 60 pounds.
1883.....	56.9	420,154,500	23,906,128,850	398,265,481
1884.....	58.3	512,765,900	29,912,761,800	495,545,863
1885.....	57.0	357,112,000	20,569,787,000	339,496,449
1886.....	58.4	457,218,000	26,686,832,000	444,772,202
1887.....	58.5	456,329,000	26,702,852,200	445,047,535
1888.....	56.5	415,868,000	23,485,068,800	391,417,782
1889.....	57.7	490,560,000	28,287,039,000	471,400,663
1890.....	57.2	399,262,000	22,854,934,200	380,915,903

The local wheat market has held strong throughout the week, with an advance toward the close. The bears are persistent in their efforts to handicap the market, but so far with only partial success. The continued unfavorable European crop returns combined with short supplies the world over, are the factors in promoting higher prices abroad. Exporters, millers and speculators would like to keep the Pacific Coast markets down or as low as possible up to next harvest, so that the season of 1891-92 will be entered on a low range of values. In furtherance of their scheme, they are crying "small supply of tonnage" and circulating other bear talk. The fact of the matter is that we will enter the next crop season with the supply of old wheat about exhausted, and while the surplus of the coast from this year's crop will be fully one-half larger than was the crop of 1890, yet there are unmistakable signs that it will be readily handled. The tonnage on the way is 50 per cent more than at this time in 1890, while everything warrants the assertion that the increase will continue to grow, so that by July the tonnage on the way will have a registered tonnage of at least 350,000. The success of marketing Eastern Oregon and Eastern Washington wheat in the Central States, will cause heavier shipments next season from those two States. This success may induce rail shipments from this State to Atlantic Coast ports. The Southern Pacific railroad is having an addition of 1000 freight cars built, to meet next seasons increased demand.

Barley has held steady under moderate receipts and a fair demand. Oregon and Washington are sending us lessened supplies. Whether the receipts from up north are due to light obtainable supplies or to the slight decline in prices it is hard to say, but from the writer's personal knowledge of Oregon and Washington, it is safe to say that nearly all of the surplus has been shipped out.

Oats have shown no material change. The demand and receipts are about even. If there is any difference between them, it is that receipts are less than the demand.

Corn, while quoted lower, has a strong, healthy tone. The high prices in the Central States preclude shipments to us, and therefore we are, for the present at least, dependent upon our own supplies.

Rye is barely steady. Crop weather is exceptionally good throughout the coast.

## Feedstuff.

Ground feed moves off fairly well, considering the improved pasture. Receipts, while not large, are ample to meet all requirements.

Hay is reported steady, with a firmer tone for the more choice grades. The higher prices ruling for wheat and barley cause considerable speculation regarding the hay crop. Many dealers believe that fewer fields will be cut for hay than there would have been had cereal values kept down. Other dealers think that while this may prove correct, yet there is a large increased acreage seeded to alfalfa and

clover that will be cut for hay, besides more bottom land utilized in that direction. The consumption of hay in this State continues to steadily enlarge.

## Fruits.

Australasia is sending us apples, which come on a fairly hungry market. The receipts of Californian are only fair, with extra choice scarce. Some extra choice mountain apples were placed last week at \$11 a barrel, but the general run is quoted at from \$6 to \$9 per barrel.

The receipts of oranges are only fair, with regular sizes of Riverside Navels very scarce. Off-sized Navels are in free supply. Seedlings are in good supply. The consumption of all kinds is not only large but appears to be enlarging. Shipments up north and also eastward are very heavy.

Fruit crop prospects are of a very encouraging character. So far as our advices go, there is not a district but reports the outlook favorable for a large yield of all kinds of fruit. Growers should by all means prune or thin the growing fruit so that the trees can produce large-sized fruits, for it now looks as if buyers will discriminate more than ever in favor of quality.

Lemons are scarce and higher for Californian. Mexican limes are strong at high prices, under light supply. Very few Californian are in the market.

Dried fruits are steadier, with stocks cleaning up. Choice grades are in light supply. Grocers are reported to be carrying light stocks.

Raisins are essentially unchanged.

A press telegram from Los Angeles says. Thus far this season's shipments of oranges to the Eastern market have been remarkably light. Growers have been holding off waiting for better prices. In order not to be at the mercy of the combination of buyers, many of them arranged to ship their own crops. Out of 4000 carloads raised in Southern California it is estimated that less than 1000 carloads have been moved thus far. The result will be that during the remainder of the shipping season the railroads will have all they can do handling the oranges left, as they require special facilities and cars to be shipped in. The effect of the growers holding back and not selling their fruit will be greatly to their advantage, as within the past ten days prices have gone from 75 cents to \$1.10 per box for seedlings on the tree. The cause of the increase in the price is the reported failure of the Italian crop and also a story to the effect that the rest of the Florida crop has been badly injured. Orchards are being sold every day now to packers, and the orange industry is at its height for the season. A great many lemons are being picked green and put through a curing process. An endeavor is to be made this year to put the California lemon on the Eastern market. It is an experiment, but no good reason exists why the lemon should not find a ready sale if it has been properly cured. More lemons will be shipped East this year than ever before.

RIVERSIDE, March 24.—The orange market is very active. There are daily shipments of about 20 cars. The prices are getting better, \$1.30 to \$1.35 and \$1.40 now being offered for seedlings. The city is filled with buyers and railroad agents. Three-fourths of all the fruit has now passed out of the hands of the growers.

VACAVILLE, March 24.—The present indications point to a remarkable fruit crop this season. Cherries are so far matured that shipments are expected within three weeks, about ten days earlier than last season. The peach and apricot trees are loaded with fruit, and thinning will have to be resorted to in order to save the crop. Such experienced orchardists as W. W. Smith and Bassford Brothers, anticipate that the cherry will exceed all other crops in proportion. The weather is magnificent for ripening fruit.

## Live-Stock.

Nevada is sending us liberal supplies of well-conditioned bullocks. From Arizona the receipts are light, Kansas buyers taking the more choice heads. From Montana our advices report the cattle having wintered well, the loss not going over two per cent. Sheep shearing is under way, causing more selling offers of mutton sheep. Hogs for the block are a shade higher.

The market for dressed cattle is quoted as follows [to obtain the price on foot, take off from the price for stall-fed one-third to one-half, according to the nature of the feed and time fed; and for grass-fed take off the price from 40 to 60 per cent]:

HOGS—On foot, light grain fed, 5¢ to 5½¢ lb; dressed, 8¢ to 9¢ lb; heavy, 4½¢ to 4¾¢ lb; dressed, 7¢ to 8¢ lb. Stock hogs, 4¢ to 4½¢ lb. BEEF—Stall fed, 7¢ to 7½¢ lb; grass fed, extra, 6½¢ to 7¢ lb; first quality, 6¢ to 6½¢ lb; second quality 5¢ to 5½¢ lb; third quality, 4¢ to 4½¢ lb; hulls and thin cows, 2¢ to 3¢ lb. VEAL—Small, 7¢ to 8¢ lb; large, 5¢ to 7¢. MUTTON—Wethers, 9¢ to 9½¢ lb; ewes, 8¢ to 9¢ lb; spring lamb, 12¢ to 15¢ lb.

## Vegetables.

Garden truck is making a better showing, causing the more seasonable to gradually recede in prices. Asparagus will soon be cheap enough for canners to take hold of. Rhubarb is in liberal supply and, as other vegetables increase in quality, it becomes more neglected. The quality of peas and string beans shows a steady improvement. The weather continues favorable for growing truck.

Onions are barely steady. Free imports from Australasia meet pressing requirements. Further imports from that country are expected to follow.

New potatoes are slow in coming. The crop promises to be very large, but early shipments overland will take large quantities. Choice good-keeping old potatoes are wanted, but sprouted and otherwise poor kinds are slow. Oregon continues to send us liberal supplies.

Nearly 500 sacks of beans came to hand the past week from Valparaiso. The market for all kinds of beans shows a stronger tone, with an upward tendency in prices.

Poultry shows a firmer tone, with large well-conditioned young fowls wanted. Poor stock is always discriminated against.

Hops are slow. This is due to light supplies and also to buyers keeping prices down so as to contract this year's crop to better advantage. Spring wool is beginning to come in, but it will not make much showing until toward the middle of April. The grade will be decidedly mixed—some localities poor to good, and others good to choice.

Honey is in fair demand. Receipts are light. Nuts move off slowly, but this usually obtains at this season of the year.



Miscellaneous.

From the Commercial News of March 25th the following summary of tonnage movement is compiled:

On the way to	1891.	1890.
San Francisco.....	249,775	155,920
San Diego.....	14,356	15,634
San Pedro.....	10,669	7,001
Oregon.....	22,848	26,721
Puget Sound.....	26,134	22,543
Totals.....	323,782	227,819
In port at		
San Francisco, disengaged.....	4,328	22,708
" engaged for wheat.....	62,827	56,183
San Diego.....	2,194	
San Pedro.....	4,018	
Columbia River.....	18,214	
Puget Sound.....		
Totals.....	91,581	93,598

To get the carrying capacity, add 65 per cent to the registered tons as given above.

From July 1, 1890, to March 20, 1891, the following are the exports from this port:

	1891.	1890.
Wheat, cts.....	9,528,219	10,527,920
Flour, bbls.....	860,063	826,495
Barley.....	208,531	901,128

Domestic Produce.

Extra choice in good packages fetch an advance on top quotations, while very poor grades sell less than the lower quotations.

WEDNESDAY, March 25, 1891.

BEANS AND PEAS.		do Ob'ce.....	10 @	—
Bayo, cts.....	3 60 @ 3 80	do paper shell	11 @	12 1/2
Butter.....	3 00 @ 3 30	do Chilli.....	9 @	10
Pea.....	3 00 @ 3 30	Almonds, hd shl.	7 @	9
Red.....	2 70 @ 2 95	Softshell.....	14 @	15
Black White.....	2 75 @ 3 00	Paper shell.....	15 @	17
lima.....	3 45 @ 3 75	Brazil.....	12 1/2 @	15
Wild Peas, blk eye	1 65 @ 1 85	Pecans small.....	12 @	14
do green.....	2 50 @ 2 75	do large.....	15 @	18
do Niles.....	1 75 @ 1 95	Peanuts.....	5 @	5 1/2
Split.....	4 1/2 @ 5 1/2	Filberts.....	11 @	12 1/2
BROOM CORN.		Hickory.....	7 @	8
Whole to Extra 70 @ 90 00		Chestnuts.....	12 @	15
Fair to Good.....	52 50 @ 65 00			
Poor.....	42 50 @ 47 50			
CHICKEN.				
California.....	5 1/2 @ 6	Silver Skin.....	3 75 @ 4 35	
German.....	6 @ 6 1/2	POTATOES.		
DAIRY PRODUCE, ETC.		New, lb.....	2 @	3 1/2
Butter.....		Early Rose, aka.	70 @	75
Cal. Poor to fair, lb 18 @ 20		Tomatoes Burbank	80 @	90
do good to choice	21 @ 22	River Reds.....	65 @	75
do Giltedged.....	23 @ 24	Burbank, river.	65 @	75
do Creamery rolls	24 @ 25	do Salinas.....	90 @ 1 25	
CHICKEN.		do Petaluma.....	80 @ 90	
Cal. choice mild	12 @	do Humboldt.....	75 @ 1 05	
do fair to good	10 @	do Oregon.....	1 00 @ 1 25	
do gilt edged.....	12 @	Jersey Blues.....	70 @ 80	
Young America.....	11 @ 12 1/2	POULTRY AND GAME.		
N. York Cream.....	13 @ 15	Hens, doz.....	5 00 @ 7 00	
Western.....	11 @ 13	Roosters, old.....	4 50 @ 5 50	
EGG.		do young.....	7 00 @ 9 00	
Cal. ranch, doz.	19 @ 20	Broilers, small	4 50 @	
do do selected	21 @	do large.....	6 00 @	
do store.....	19 @	Fryers.....	7 00 @	
FEED.		Ducks, time.....	6 50 @ 7 50	
Brass, ton.....	14 00 @ 15 00	do large.....	8 00 @ 9 50	
Feed meal.....	30 00 @ 31 50	Geece, pair.....	1 75 @ 2 25	
Gr'd Barley.....	30 50 @ 32 00	Turkeys, Gobb.	12 @ 14	
Middlings.....	17 00 @ 18 50	Turkeys, Hens.....	15 @ 17	
Oil Cake Meal.....	26 00 @ 28 00	do dressed.....	14 @ 17	
Manhattan Food.....	100 lbs 7 50	Pigeons.....	1 75 @ 2 50	
HAY.		Rabbits, doz.	1 25 @ 1 50	
Compressed.....	15 00 @ 19 00	Hare.....	1 00 @ 1 50	
Wheat, per ton 13 00 @ 17 50		EGG FOOD.		
do choice.....	18 50 @	Manhattan.....	12 @	
Wheat and Oats 13 00 @ 17 00		PROVISIONS.		
Wild Oats.....	12 50 @ 15 00	Cal. Bacon, h'vy, lb	9 @	
Tame do.....	12 00 @ 15 00	do Medium.....	9 1/2 @	
Barley.....	11 50 @ 14 00	Light.....	13 @	
Barley and Oats 11 50 @ 14 00		Lard.....	9 @ 10	
Alfalfa.....	00 @ 12 50	Cal. Sm'd Beef	11 @	
Straw bale.....	60 @ 75	Hams, Cal.....	11 @	
FLOUR.		do Eastern.....	12 @	
Extra, City Mills 4 55 @ 4 65		SEEDS.		
do O'ry Mills 4 40 @ 4 65		Alfalfa.....	7 @ 7 1/2	
Superfine.....	3 10 @ 3 65	Oatmeal.....	2 1/2 @ 3	
GRAIN, ETC.		Clover, Red.....	9 1/2 @	
Barley, feed, cts 1 33 @ 1 37 1/2		White.....	17 1/2 @	
do Choice.....	1 38 @ 1 41 1/2	Oatmeal.....	20 @	
do Brewing.....	1 41 @ 1 42 1/2	Flaxseed.....	2 50 @ 2 80	
do do Choice.....	1 45 @	Hemp.....	10 @ 11	
do do Giltedged	1 50 @	Italian Rye Grass	10 @ 11	
Buckwheat.....	1 40 @ 1 55	Perennial.....	7 @ 9	
Corn, White.....	1 35 @ 1 40	Millet, German.	5 @	
Yellow, large.....	1 35 @ 1 37 1/2	do Common.....	5 @	
do, small.....	1 37 1/2 @ 1 40	Mustard, yellow	2 20 @ 2 50	
Oats, milling.....	1 90 @ 1 95	do Brown.....	2 1/2 @ 3	
Surprise.....	1 90 @	Rape.....	2 1/2 @ 3	
Feed, Ochoa.....	1 82 1/2 @	Ky. Blue Grass.	25 @ 27	
do good.....	1 80 @	Sweet V. Grass	75 @	
do fair.....	1 72 1/2 @	Orchard.....	14 @ 16	
do Gray.....	1 72 1/2 @ 1 77 1/2	Hungarian.....	7 1/2 @ 8	
do Black.....	1 72 1/2 @ 1 77 1/2	Lawn.....	27 1/2 @ 40	
Eye.....	1 27 1/2 @ 1 32 1/2	Mesquit.....	7 @ 8	
Wheat, milling.		Timothy.....	5 1/2 @	
Gilt edged.....	1 55 @	TALLOW.		
do Choice.....	1 52 1/2 @	Rendered, lb.....	1 @ 3 1/2	
do fair to good	1 51 1/2 @	Refined.....	4 1/2 @ 5 1/2	
Shipping, cho'ce	1 51 1/2 @	WOOL—Spring, 1890.		
do good.....	1 48 1/2 @ 1 50	Hump't & Men'cino	19 @ 24	
do fair.....	1 45 @ 1 47 1/2	Sac'to valley.....	15 @ 22	
Sonora.....	1 47 1/2 @ 1 50	Free Mountain.	18 @ 24	
HIDES.		S. Joaquin valley	12 1/2 @ 17	
Dry light to h'vy	9 @	do mountain.	17 @ 22	
Salted.....	5 @ 7 1/2	Cal's & P'b'l.	15 @ 24	
HOPS.		Oregon Eastern.	13 @ 25	
Oregon, 1890.....	25 @ 35	do valley.....	20 @ 22	
Cal 1890 Choice	32 1/2 @	So'n Coast, def.	10 @ 14	
do Fair to Gr'd	25 @ 30	So'n Coast, free.	12 1/2 @ 19	
FRUITS—JOBBERS.		FALL—1890.		
Walnut, Cal. lb	8 @ 9	North'n, choice	16 @ 18 1/2	
		do defective	14 @ 16	
		Mountain Free	13 @ 15 1/2	
		S. Joaquin, def.	9 @ 11 1/2	
		Southern do.....	9 @ 11 1/2	

Fruits and Vegetables.

Oboloe selected, in good packages, fetch an advance on top quotations, while very poor grades sell less than the lower quotations.

WEDNESDAY, March 25, 1891.

Bananas, bunch	1 50 @ 3 00	Parasols, cts.....	1 25 @	—
Limes, Mex.....	8 00 @ 9 00	Peppers, dry, lb	12 @	20
do California.....	1 00 @	do green.....	12 @	20
do do sm'l bxs	— @	Turnips, cts.....	75 @	—
Lemons, box	— @	Beets, sk.....	— @	1 00
do Riverside.....	2 00 @ 3 00	Cabbage, 100 lbs	50 @	—
do Los Angeles	1 25 @ 1 60	Carrots, cts.....	50 @	—
do Sicily, bxs.....	5 00 @ 6 00	Marrowfat, ton	20 @	—
Seeding Oranges		Garlic, lb.....	3 @	5
do Riverside.....	1 75 @ 2 25	do ex. choice	5 1/2 @	7
do Los Angeles	1 25 @ 1 75	Mushrooms.		
Navel Oranges.		Common, lb	15 @	25
do Riverside.....	4 00 @ 4 25	Choice.....	25 @	40
do Los Angeles	2 75 @ 3 25	Celery, per doz.	50 @	60
do do scaly.....	1 50 @ 2 00	Cauliflower, doz	40 @	60
do Duarte.....	3 00 @ 3 50	Tomatoes, box.	50 @	15
Pineapples, doz	4 00 @ 5 00	Sp'n squash, lb	12 1/2 @	15
Apples, com box	1 00 @	Cucumbers, doz	1 00 @ 1 25	
do good.....	1 50 @	Peas, lb.....	4 @	7
do choice.....	2 00 @	Phar gr'n com lb	4 @	6
do Giltedged.....	2 75 @	do do sweet.	7 @	—
do Mountain, bbl	6 00 @ 11 00	String Beans, lb	10 @	12 1/2
VEGETABLES.				
Okra, dry, lb.....	20 @ 30			

\*In quoting oranges, regular sizes are given, viz.: from 112 to 176 for Navel, and 126 to 226 for seedlings; odd sizes 50 cents to \$1 per box less.

PACIFIC COAST WEATHER FOR THE WEEK.

(Furnished for publication in this paper by officer in charge of branch Signal office, Division of the Pacific.)

	Olympia.	Portland.	Eureka.	Red Bluff.	Sacramento.	S. Francisco.	Fresno.	Keeler.	Los Angeles.	San Diego.
DATE.	March 24.	March 24.	March 24.	March 24.	March 24.	March 24.	March 24.	March 24.	March 24.	March 24.
W.	.04	42 SW Rn.	.T 46 S Cy.	.10 44 NW Cl.	.00 52 NW Cl.	.00 54 NW Cl.	.00 50 W Cl.	.00 42 S E Cl.	.12 44 NW Cl.	.08 46 E Cl.
T.	.10	42 0 Cy.	.01 46 S E Cy.	.00 48 0 Cl.	.00 48 NW Cl.	.00 54 N Cl.	.00 54 W Cl.	.00 48 NE Cl.	.00 52 S E P C.	.00 56 NE Cl.
F.	.88	42 S P C	.26 46 SW P C	.01 50 W Rn.	.00 50 NW Cl.	.00 60 S E Cl.	.00 52 W Cl.	.00 52 E Cl.	.00 48 E Cl.	.00 54 N Cl.
S.	.00	36 S P C	.00 40 0 Cy.	.....	.00 54 NW P C	.00 48 S P O	.00 48 SW Cl.	.00 48 NW Cy.	.00 50 S Cy.	.00 56 S E Cy.
N.	.00	34 NE Fy	.00 38 0 Cy.	.....	.00 52 NW Cl.	.00 44 SW Cl.	.00 42 NW Cl.	.T 42 NE P C	.04 46 NW Cl.	.02 54 W Cy.
M.	.00	30 S Cl.	.00 34 0 Fy.	.....	.00 42 N Cl.	.00 46 S Cl.	.00 42 0 Cl.	.00 38 NW Cl.	.00 48 NE Cl.	.00 54 W Cy.
T.	.10	40 48 S Rn.	.10 50 SW Rn.	.00 40 N Cy.	.00 46 S E Cl.	.00 48 S Cl.	.00 46 E Cl.	.00 45 E Cl.	.00 52 NE Cl.	.00 48 W Cl.
.....	1.02	.67	.21	.00	.00	.00	.00	.12	.12	.05

EXPLANATION. Cl for clear; Cy, cloudy; Fr, fair; Cm., calm; — indicates too small to measure. Temperature wind and weather at 5 P. M. (Pacific Standard time) with amount of rainfall in the preceding 24 hours. T indicates trace of rainfall. P C, partly cloudy. Rn., rain.

LAND

WORTH LOOKING AFTER

—AND—

Likely to Double in Price Soon.

FINE VINEYARD CHOICE FRUIT RARE RAISIN AND ALFALFA

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EXAMINE THIS RARE CHANCE.

A well-cultivated farm of 160 acres, with miles of fencing and cross fencing, good improvements, 7-room, two-story, hard-finished house, nearly new, plenty shade trees, large barn, blacksmith shop, milk house, grain house and other outbuildings; 7 acres of bearing orchard; 20 acres of alfalfa; large flowing artesian well of splendid water, and first-class surface wells of water; pleasantly located 7 miles from Tulare City; is offered for sale at about cost of improvements, on easy terms, by the owner, who is engaged in other business. Land sold, in lots, without improvements, at \$25 per acre. The readers of this journal are assured that this chance is worth looking after. Parties in San Francisco who know the property can be referred to. Some adjoining land can be secured at favorable rates if desired.


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THE BEST

IS THE

CHEAPEST.



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IN 1-LB. AND 5-LB. CANS.

DON'T BUY AN Inferior Article

MORE PROFITABLE to some one else.

St. Albans Tread Horse-Powers!

—FOR—

ONE, TWO AND THREE ANIMALS.

Especially adapted for

Driving Cream Separators,

CHURNS, SAWS, FEED CUTTERS and PUMP-ING WATER FOR IRRIGATION.

Guaranteed to produce

MORE DRIVING POWER,

To wear longer, run even, and give better satisfaction than any other make.

The only Horse-Power that we sell with our De Laval Separators and guarantee the whole outfit to give entire satisfaction.

There are nearly one hundred of these

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## Notices of Recent Patents.

Among the patents recently obtained through Dewey & Co.'s SCIENTIFIC PRESS U. S. and Foreign Patent Agency, the following are worthy of special mention:

**GATE.**—John F. A. Millerick, S. F. No. 447,013. Dated Feb. 24, 1891. This invention relates to that class of gates adapted to be opened and closed by the wheels of approaching and receding vehicle running down cranks in the roadway. The invention consists in certain novel constructions and combinations. The object is to provide an effective and readily-operating gate of this class.

**PERCH FOR BIRD-CAGES.**—John F. Sweeney, S. F. No. 447,006. Dated Feb. 24, 1891. These perches are so arranged as not to extend more than half-way across the cage and are adjustable up or down. By the construction adopted, the perches are easily supported within the cage, and in proper positions with relation to each other, so that the bird can easily fly from one perch to the other without danger of breaking or damaging his feathers, and no perch need be placed over another so as to become soiled and dirty. On that portion of the perch nearest to the side of the cage is fixed, by means of fish-glue, a compound of sharp sand and red pepper. This gives an opportunity for the bird to rub and scratch itself. The pepper acts to keep it clear of vermin, and the sharp sand will wear upon the ends of the toe nails so as to prevent them from becoming too long, which is the great difficulty where birds are confined in cages.

**CURRENT-WHEEL.**—Wm. Stephens, Santa Rosa. No. 447,915. Dated March 10, 1891. A series of floats of any suitable size and construction may be anchored in a stream or current of water and upon this are a number of wheels adapted to be turned by the force of the current. By means of belts or other conducting device the power thus derived may be transmitted to drive a dynamo to generate electricity, which may be used for power or light. The patent covers a number of details of construction and operation.

**CULTIVATOR.**—Benjamin P. Whitney, Los Alamos, Santa Barbara Co., assignor of one-half to W. F. Wickenden, No. 447,992. Dated March 10, 1891. This invention relates to cultivators which are specially adapted for weed and bean-cutting as well; and the invention consists in a triangular-shaped share or cutting point having attached to it a beam and handles substantially similar to those of a plow and adjustably connected with its rear end, and novel extension blades suitable to the requirements of the work.

**SPRING SEAT FOR VEHICLES.**—Wm. H. H. Wright, S. F., assignor of one-half to Geo. W. Lewis, Oakland. No. 447,928. Dated March 10, 1891. The object of this invention is to provide a simple and effective spring-support for the seats of vehicles which will be inexpensive in construction, not liable to get out of order and will be convenient and out of the way, dispensing entirely with the use of the elliptic springs which ordinarily support the seat and which are a decided obstruction.

**BALE-TIE FASTENER.**—David W. Gish, San Jose. No. 448,022. Dated March 10, 1891. The object of this invention is to provide a simple and effective fastening for bales-ties, especially applicable to ties made of wire, and which will permit the repeated use of the tie by its adaptability to be released without injuring the tie.

**FRUIT-PITTING MACHINE.**—James T. Ish, S. F. No. 445,753. Dated Feb. 3, 1891. The object of this invention is to provide a machine of this class in which both the flesh of the fruit and its pit are cut through and the latter removed. The fruit is placed in spring holders of an arm which, swinging upwardly, delivers it between traveling opposing cups, the cushion-holders of which retain it. The fruit is then brought into contact with the stationary knife, and a revolving knife coming up behind it at that instant, both the flesh and the pit are cut into halves. These pass on each side of and in contact with a directing plate and curve around its end branches. Then when opposite the nippers, their peculiar action extracts the severed pits.

**BORING MACHINE.**—Ammi M. Jewell, S. F. No. 446,352. Dated Feb. 10, 1891. This invention relates to the general class of boring machines, and particularly to a machine for boring the stiles of doors, blinds and sashes. The object is to provide a suitable machine for boring holes in such stiles, whereby they are adapted to receive dowel pins, which are also let into holes in the rails of the doors, blinds and sashes, whereby these articles are put together by dowels instead of mortises and tenons.

**BORING MACHINE.**—Ammi M. Jewell, S. F. No. 446,353. Dated Feb. 10, 1891. This is a machine for boring the holes in both ends of the rails of doors, blinds and sashes to receive dowel pins, whereby said rails are connected with the stiles instead of by the usual mortises and tenons.

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Mission Olives, two years old, \$15 to \$18 per 100. Nevadillo Blanco Olives, two years, \$15 to \$18 per 100. Lavayino (from Genoa) Olives, two years, \$20 per 100. Picholine Olives, two years, \$6 to \$10 per 100, \$50 to \$50 per 1000.

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DOMOTO BROS. CO., ON ACCOUNT OF REMOVAL, offer Great Bargains in Mandarin Oranges, Mammoth Chestnuts, Persimmons, Plums, Ornamental Plants, Camellias, Azaleas, Magnolias, Tree Peonies, Palms, Wisteria and Bulbs; also 500 different varieties of Choice Chrysanthemums and 300 new varieties from Japan, Roses, etc. For sale at Lowest Prices.

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I STILL HAVE IN STOCK A FEW THOUSAND OF French Prunes on Myrobolan Seedling Roots, clean and healthy, that I am offering at a modest price. Also Fears, Apples, Cherries, Peaches and Apricots. All first class. Correspondence solicited. Address D. B. DERBY, Vacaville, Cal.



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FROM SUNBURN, BORERS,  
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By Using the  
Pacific Tree Protector.

Waterproof, Adjustable & Convenient.  
Saves Time, Trouble & Expense.

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Orange, Lemon, Lime, Olive, Japan Persimmon, and all kinds of Nut-Bearing Trees, Shade and Ornamental Trees, Shrubs, Etc.

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Ask for Prices.

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## 400,000 OLIVES, 18 VARIETIES.

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## Budded Orange and Lemon Trees.

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## PALM AND CITRUS NURSERY.

I OFFER THIS SEASON A LARGE AND SELECT stock in PALMS (50 varieties), in CITRUS—Eureka, Lemon, Washington Navel, Indian River, etc.; in OLIVES—Mission (100,000), Italian (Frantolo, Morinello, etc.) from imported trees; also the French and Spanish varieties. Large selections in PINEAPPLE and BANANAS. Also the largest collection of Tropical Fruit-Bearing Trees in the State, a few of which are: Alligator Pear, Cherimoya, Mango, Sour Sop, Sugar Apple, Star Apple, Cashew Nut, Rose Apple, Cocoa Plum, Elephant Apple, and others too numerous to name. Send for Descriptive Catalogue. KINTON STEVENS, Santa Barbara, California.

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Palms, Camellias, Magnolias, Cedars, Araucarias, Bamboos, Azaleas, Yews, Pines, Cypress, Holly, and a large and complete assortment of Fruit, Ornamental Trees and Flowering Shrubs. 50,000 Monterey Cypress and Gums, transplanted in boxes. ROSES OUR SPECIALTY. 500 Varieties kept in stock. Send for Catalogue and Price List.

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## 100,000 OLIVE TREES!

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Two years old, 5 to 7 feet high.

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One year old, 2 to 3 feet high.

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ORDERS WILL BE RECEIVED FOR A VERY limited number of choice Italian Olive Trees. Varieties:

FRANTOIO, CORREGGIOLO, } For Oil.  
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These trees are original importations from Italy, all thrifty, from five to eight feet in height.

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\$8.00 PER 1000.

Or Red Gums at \$10.00 per 1000, all transplanted, healthy, hardy stock. Will send any size required, from 6 to 10 up to 12 to 18 inches high, at above prices. Any size of Monterey Cypress at low rates. Send stamps for sample boxes. The best trees, for the least money, in the State. GEO. R. BAILEY, Park Nursery, Berkeley, Cal.



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WHITE ADRIATIC FIGS, OLIVES, PLUMS AND PRUNES ON MYROBOLAN ROOT, GRAPES, PALMS, ROSES AND OLEANDERS.

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Also Fine Stock Olives, Oranges, Lemons, Nut Trees and Small Fruits; Magnolias, Camellias, Palms; Large Stock of Roses, Clematis, Etc., Etc.

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GRASS, CLOVER, VEGETABLE, FLOWER AND TREE SEEDS, TOP ONIONS, Etc., Etc.

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It contains description and price of Grass, Clover and Field SEEDS, Australian Tree and Shrub SEEDS, Native California Tree, Shrub and Flower SEEDS (the largest assortment of Vegetable and Flower SEEDS, offered in the United States), new varieties of Forage Plants, Grasses and Clovers especially recommended for the Pacific Coast. Holland, Japan and California Bulbs. Large Assortment of Palm SEEDS, new and rare Plants, new Fruit. Our stock of Fruit Trees consists of the best varieties of Plum, Apple, Apricot, Peach, Cherry, Olive, Fig and Nut Trees, Grape Vines and small Fruits. Address

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All the Leading Varieties of APPLE, PEAR, CHERRY, PLUM, PRUNE, APRICOT NECTARINE and ALMOND.

Fine Stock of ORANGES, LEMONS, OLIVES, NUT TREES and FIGS.

The Only Stock of PERSIAN WALNUTS (Kaghazi) on the Pacific Coast.

300,000 GRAPE VINES (Strong Roots). Small Fruits, Berry Bushes, Etc., Etc., in Large Quantities.

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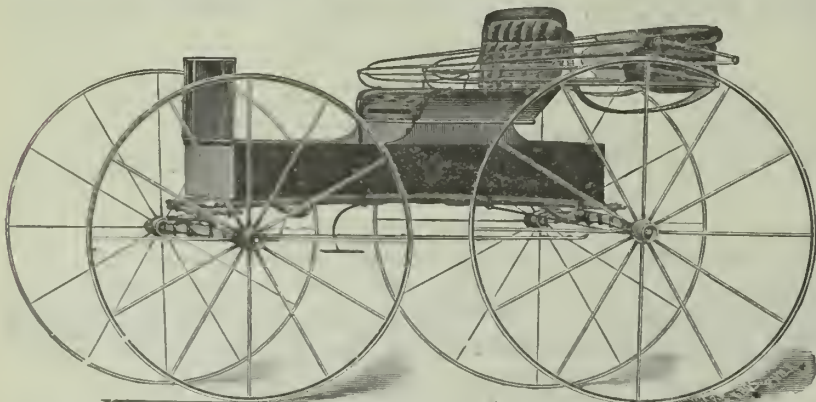
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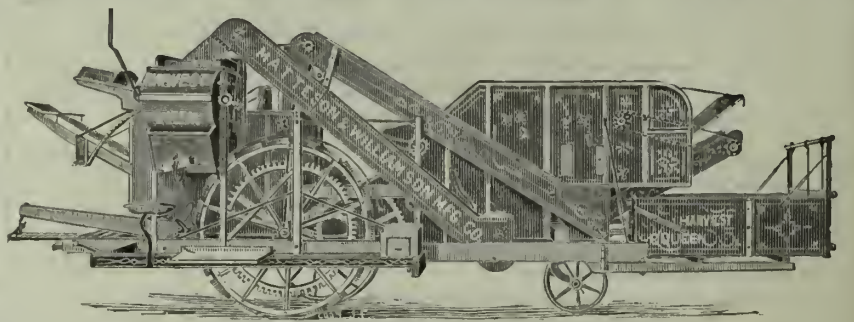
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Vol. XLI.—No. 14.

SAN FRANCISCO, SATURDAY, APRIL 4, 1891.

DEWEY & CO., Publishers,  
Office, 220 Market St.

### The Date Palm in California.

We have had frequent references during the last few years to the growth of the date palm (*Phoenix dactylifera*) in California, but the subject is of constant interest over a great area of the State. The historic interest pertaining to the date palm, the commercial importance of its product and the characteristic beauty of the plant, all charm the California horticulturist. The result is that more date palms are being planted each year. The small plants are now furnished at very reasonable rates by nurserymen or are readily grown from the seed of the dried date by the planters themselves. It is well that such is the disposition of planters, for the date palm is one of the most beautiful plants, either as isolated specimens or in avenue rows, and although this generation may not see the date a large commercial product in California, the growth of the trees will in a few years introduce a new and gratifying feature into the landscape which both tourist and resident will fully enjoy.

The engraving on this page is a new view secured by the Marysville Appeal of the famous group of date palms on the farm of Mrs. S. C. Wolfskill, near Winters, in Yolo county. These trees have been frequently alluded to in our columns, and in our issues of February 3 and March 23, 1889, full accounts are given of the history of the Putah creek palms, both those shown in the picture we present this week and other trees adjacent upon the place of J. R. Wolfskill. Within the last two years date palms have come into bearing at many other points in the central and southern portions of the State. Readers will also remember the introduction of date palms from Africa by the U. S. Department of Agriculture and their establishment at the Experiment Stations at Tulare and Pomona.

In addition to the date of commerce, our planters are also paying attention to other species of *Phoenix*. The best of all for ornamental purposes is the *Phoenix canariensis*,

which is handsomer and more hardy than the *dactylifera*. The most striking plant in the editorial garden of the RURAL is a Canary date palm which was presented to the writer by John Rock in 1880. It was then in a six-inch pot and not above 12 inches high. Now it is

about 15 feet high and the same in spread of its splendid feathery leaves. It bloomed with staminate flowers for the first time last fall.

FREIGHT traffic on the lines of the Southern Pacific Company, has increased wonderfully.

cago grain houses, and stretches almost unbroken from Lake Michigan to the Pacific. It is carried into but four or five offices in all that great territory. Over it flies the latest news of the wheat crop of the coast, gathered by special agents.



DATE PALMS ON THE SOUTH BANK OF PUTAH CREEK, THE FIRST FRUIT IN CALIFORNIA.

### A Wheat Corner Rumored.

Reports of short stocks of wheat in all supply and distribution centers are followed by rumors that the corner-makers propose to get in their work again in the hope, no doubt, of doing better than they did at the last great venture. The statistics presented in our Market Review from week to week, and notably in the last issue and this, show how small the wheat supplies now are, and the advancing prices show the general effects of the supply condition. It is telegraphed from Chicago that there have been rumors on the Board of Trade for some time to the effect that a corner was being worked in May wheat, the cornerers having begun to buy when the price was about 99 or 94 cents. The rumors have variously pointed to a combination of New York and Chicago men and to a clique of Chicagoans exclusively. Now, it is asserted, it has been learned that many of the buying orders have come from New York, and chiefly through commission houses here connected by private wires with Wall street. It is said the purchases of the manipulators must now be high up in the millions. The Northwest and heavy local speculators have a shortage which aggregates 30,000,000 to 40,000,000 bushels. If the clique hold half of this and succeed in their supposed intention of working prices up to \$1.25, the profits would aggregate over \$5,000,000.

A SPECIAL GRAIN WIRE. The Park (Utah) Record is responsible for the statement that a "heavy glistening copper wire" stretches along the Western Union telegraph poles from Chicago to the Pacific Coast and "is a piece of striking private enterprise. It is for the special use of a couple of the heavy Chi-



## FLORIST AND GARDENER.

### "Old Fussy" in the Garden.

EDITORS PRESS:—"Old Fussy" is what she called me in 1854, when I was a partner with her father, in a small ranch near a thriving little mining town in one of the northern counties of this State. She was a beautiful young girl, about 14 years old, and had lately come from Vermont with her mother and two brothers, both younger than herself. She was very fond of flowers, and had brought quite a variety of very choice seeds from her old "Green Mountain" home, and now, as it was the latter part of April, and the ground just in a suitable condition to work, she asked her father to make her a nice flower bed in front of the house. He immediately complied with her request, and soon had a large bed prepared in which to sow her precious seeds. In my absence she had planted a large portion of them, and on my return she showed me the bed which she had raked off very nicely, and left it almost perfectly level. She then said: "Now I will have some beautiful flowers to look at the coming summer," but I knew she would surely be disappointed as well as very sadly grieved, and so I turned the conversation in some way. Quite a cold rain came, followed by warm days and cool nights, and although she examined the bed very carefully several times a day, she was unable to discover even one tiny plant, and even the weeds hardly managed to make an appearance, as a great portion of the soil was of the adobe order, and it had settled very solid, leaving a thick firm crust through which of course, they were unable to make their way.

Time passed, and at last she came to the sad conclusion that her choice seeds were lost, and that her flower-bed was a most wretched failure. One day she came to me and said: "Pray tell me if you can, just why my seed never came up? I know they were fresh, for I raised them last summer." I then told her that her father did not take pains enough to get the right kind of soil. On hearing this she seemed very much surprised, and said, "Will you please make a bed for me? I will thank you ever so much, and as I have some seed left I will try again."

I went out to the site of an old Indian camp, and there obtained soil that was very black as well as light and rich, as it was composed mostly of decayed vegetable matter, bones, shells, etc. I went to the creek where I procured a nice lot of fine wash-sand with some sediment; then to an old corral, where I got very fine rotten manure, and finished my search by getting a nice lot of leaf mold from the north side of some woods near by. After getting all the material together, I commenced to thoroughly mix them. While doing so, the disappointed and almost discouraged girl came out, and after watching me a few moments said "Well, I declare if you ain't an old fussy."

I told her as I was only 21 years old, I did not think I was a very old fussy, but I was considerable of a young one and that I had found out it paid to be a fussy, young or old, that the old saying was still true that "What-ever was worth doing, was worth doing well," and that she would find out as the years rolled by, that what I had told her was true.

After throwing out the dirt of her flower-bed I put in my rich light compost and the contrast between the two kinds (to use her own words) was "truly wonderful." She planted her seed very carefully, and in a short time she had the pleasure of seeing the healthy young plants making their appearance all over the bed, and she was soon kept very busy transplanting them to other beds I had prepared. In due time she was well rewarded for all her pains, as her beautiful flowers seemed to greet her on every hand.

Twenty-eight years after, in a different part of this State, I had the pleasure of visiting Mrs. C—, my friend of 1854. She had been a teacher in the public schools for over twenty years, and was a very thorough and successful one.

She said: "I have never forgotten the flower-bed you took so much pains to make for me, and it has proved to be the best lesson of my life, for I have found by a long experience in school-teaching, as well as in many other things in life, that nothing of much importance can be accomplished without taking great pains, accompanied with plenty of patience; in fact, in order to make a success at anything, one has to be, and it surely paid to be, an 'Old Fussy.'"

Before I left, she took me with her husband, into their lot that contained perhaps one-eighth of an acre. She then said to me, "I wanted years ago to have this ground prepared for the raising of flowers, strawberries, blackberries, and early vegetables, but my husband said it was of no use to attempt it, as the soil was mostly adobe, but I want your opinion about it."

I asked her what they had done with the manure from two horses, a cow, and two dozen chickens, to say nothing of the large amount of ashes they had made during the past twenty years they had lived there. She said: "Why, husband pays an old negro fifty cents every Saturday to gather it all up, and dump it into the creek."

I told her I was completely astonished; that it was worth more than that to put on her land, as

it was just what it needed, and that they could have bought adjoining land and made all of it as rich and as light as the flower-bed I made for her in 1854. I also called her attention to the fact that it cost them \$26 a year, or over \$500 in 20 years, to hire some one to throw away their valuable fertilizers. My remarks seemed to open their eyes, but as they were intending very soon to sell their place, they concluded it was too late to make a change.

#### Value of Manure Overlooked.

Yes overlooked, that is the right word, I think, for Webster says it is "To neglect by carelessness or inadvertence." The fact is that many farmers, as well as others who keep stock of different kinds, do not stop to think what they are doing in allowing their manure-piles to fire-fang in summer or to be completely leached out during the winter's rain, and consequently many thousands of wagon-loads of the best kind goes to waste every year in this State that ought to be properly cared for and put on the land. Some wide-awake farmers are now doing this, and are beginning to reap the reward for their labor. I knew a man in the mines in 1862 who kept from 15 to 20 large horses which he used on his place and in teaming; he also had quite a number of cows and hogs. His large stable was quite near to a running creek, into which he dumped all the manure and straw after it was used for bedding. I greatly wondered at it then, but heard 20 years after that he was still doing the same foolish thing, although he had several acres of land that would have made a most excellent garden with the addition of plenty of manure, and he had an abundance of natural water for irrigation. But notwithstanding all this, he had bought for many years all his vegetables in Sacramento and hauled them a distance of over 50 miles for his family and eight or ten hired men, but finally obtained them from a town near a railroad, where he had to pay a much higher price for them, and in making the trip—a distance of about 18 miles—had to go down a steep grade of over three miles and climb another mountain equally as bad, besides paying a toll of \$3. He managed some way to raise most of his hay and a portion of his grain for his stock, whereas if he had utilized all the manure that annually went to waste he could have raised all of his hay and grain on half the amount of land and saved a large amount of seed as well as labor. For aught I know to the contrary, he is still plodding along in his usual way, and there are a great many others who are following in his footsteps on a smaller scale. It is not only carelessness, but laziness sometimes—at least it is pure shiftlessness on the part of any one that owns land to let the manure go to waste every year, and I consider it sinful when it is in one's power to avoid it. Surely everybody, everywhere, should be interested in this very important matter, as there is a "bonanza" even in the manure-pile.

#### Kinds of Manure.

Ordinarily, the common farmer is chiefly confined to that made on his farm, generally consisting of cow, horse and chicken manure, which if properly composted, is about as good as any that can be obtained. A great deal of other valuable material can be added from time to time, by never burning anything that will rot. The manner of doing this, and the different kinds of material used, I endeavored to explain in my article "Care of Manures" in the RURAL, in the spring of 1886, although I did not attempt to do full justice to the subject, nor to enter into every little detail as to the relative value of different kinds, etc., as my time was very limited and I was then, and have been ever since, experimenting with different kinds and noting very carefully the results when applied to different kinds of crops.

I consider night-soil one of the most valuable kinds of manure, and I have very carefully saved and used it during the past eight years on my place. I keep perfectly dry and very fine wash-sand and sediment, that I get in a creek, at all times in my outhouse, and use it very freely as a solvent; also use a little lime and charcoal occasionally; the latter I sift out of my ashes. I made, as a receptacle, a box flaring on all sides and of the required width and length, and 20 inches deep. I clean out this box regularly every week, putting the contents into old barrels, and cover with a few inches of sand, in order to prevent any foul or offensive odors from escaping, as well as to keep the contents from the air, which would cause it to get too dry and thereby prevent rapid decomposition. I keep the barrels from the rain, as well as from the sun; by so doing, just enough moisture is retained to reduce the contents into a perfectly rotted and friable compost without any perceptible odor. This ordinarily takes some five or six months, owing somewhat to the temperature. I have at present six barrels of this valuable fertilizer, which, however, is much too rank and strong to apply in its present state. I shall, therefore, as I always have done, thoroughly mix it with three or four parts more of sand, and then use it in my squash and melon hills, around my blackberry and raspberry bushes, etc. I consider it very much superior to any fertilizer I can buy at present on this coast, and I have the advantage in knowing just what its real value is. Heretofore I have put most of this compost around my peach trees, gooseberry and blackberry bushes, with astonishing results.

I had several of my friends ask me: "How in the world do you manage to raise such mammoth gooseberries and blackberries, and so many of them on a bush; and what makes your

cling peaches so large and your trees so remarkably thrifty." They were greatly surprised when I told them the reason, and said they never heard of the like before. There are many, however, who are knowing to the fact that night soil is one of the most valuable fertilizers, but object to it, mainly on account of its peculiar nature, offensive odor, and great difficulty in handling. All these objections and difficulties are entirely avoided by using plenty of absorbents and disinfectants (lime and charcoal), as before stated, which entirely take up all the excess of moisture, and do not allow noxious gases or offensive and unhealthy odors to escape to pollute and poison the atmosphere. Neither are there any places in boxes or barrels where flies, worms and insects of various kinds can breed, but the boxes and barrels are kept at all times comparatively clean, and with but a small amount of labor involved, in comparison with the great benefits derived in many ways from such a course. It is, therefore, most certainly a commendable sanitary measure compared with the ordinary way. No deeper or even shallow vaults, should ever be allowed in close proximity to the house or well (as they oftentimes are), as without doubt, many germs of very dangerous diseases are generated in such places.

I trust that the foregoing article, written quite hastily, may prove to be acceptable, as well as of some interest to your many readers.

IRA W. ADAMS.

Bay State Garden, Calistoga.

## THE APIARY.

### Introducing Queens and Queen Cells.

EDITORS PRESS:—In introducing queens, a great deal depends upon the amount of honey coming in. If honey is scarce and coming in slowly, the more difficult it will be to introduce queens; while if honey is coming in rapidly it is no trick at all. About all you would have to do would be to catch the queen you want removed and drop the other in the hive and your introducing would be done.

But as it is only at certain times that queens can be introduced so easily, possibly in California about two months in the year, for the rest of the time we must use other methods by which queens can be successfully introduced at any and all times.

The best shipping and introducing cage is a splendid cage for introducing queens and queen cells. It may be obtained of any extensive dealer in apiarian supplies.

The principle of introducing with the Peet cage is this: Be sure to have your colony queenless in the first place; next, remove a good smooth comb containing a few cells of honey and fasten the cage over the cells of honey. In a short time the bees will liberate the queen by eating through the comb; and if, as sometimes happens, they fail to liberate the queen after a reasonable time, the cage should be removed.

Another plan to introduce with this cage is as follows: Remove the tin slide, part way; lay the cage on the frames, and the bees will soon eat the candy away and release the queen.

A few days ago I introduced successfully a couple of Carniolan queens with an introducing cage of my own construction. I took a block three inches long, one inch wide and one inch thick, and bored two two-eighth inch holes through the center of the block; I then bored a hole in the end until I reached the other two holes. On one side I tacked a piece of wire screen, and the hole in the end of the block I filled up with bee candy. After placing the queen and attendant bees in the cage, I nailed a small strip over the holes in the opposite side of the block. The cage was now ready for introducing the queen, and I placed it on top of the frames in the hive, and in a short time the bees had taken away the candy and the queen was safely introduced.

This style of cage is about as simple and cheap as I know of.

#### Introducing Virgin Queens.

Virgin queens, when two or more days old, are more difficult to introduce than fertile queens, but when first hatched, or a few hours old, you may let them run in at the entrance and they will be safely accepted—in fact the best time to introduce a virgin queen is when she has just hatched.

In introducing virgin queens two or more days old, keep the queen imprisoned at least 36 hours.

Sometimes when honey is coming in rapidly you may place a cloth in front of the hive and shake a number of bees on it, and then drop a virgin queen with them, and after they are in the hive give them a good smoking.

#### Introducing Queen Cells.

It frequently happens that you have a number of valuable queen cells that you wish to introduce among nuclei or queenless colonies. If you wish to introduce to a colony that has no queen cells started, or one from which you have just taken their queen away, it would be best to place a queen cell in a Peet introducing cage.

If you have a colony with cells already started, you may graft one of your valuable cells in place of one of the others. Great care should be taken to have the new cell honey in the same position as the old one.

In all your operations in introducing queens,

be sure and have your old colony queenless; the presence of queen cells is not always an indication that a colony is queenless, because a virgin queen is sometimes present in a colony that has queen cells. S. L. WATKINS.  
Grizzly Flats Cal.

## METEOROLOGICAL.

### Facts About Weather Forecasts.

The Pacific Branch of the National Weather Service.

Lieut. John P. Finley, in charge of the Division of the Pacific Signal Service, U. S. A. has issued a bulletin giving the following facts about weather forecasts in this region:

The branch office of the National Weather Service, Division of the Pacific, was opened at San Francisco, March 1, 1885, and is the only office of its kind in the country outside of the central office at Washington, D. C. It was established for the purpose of providing, in the most direct and practical manner an opportunity for the people of the Pacific Coast to receive all of the benefits that may be derived from the work of the Signal Service. The main object was to prepare and distribute through the press and by telegraph, weather forecasts for the Pacific Coast States, and warn vessels of the approach of storms dangerous to shipping off the coast. Also, to make special forecasts of rain, frosts, floods and local storms. Such work had been carried on at the central office at Washington many years for the eastern portion of the United States, and it was believed that the time had come for the organization of a Pacific Coast Weather Service, with headquarters at the metropolis of the coast, and at a place centrally located for the convenient receipt and distribution of telegraphic reports. To properly apply the weather forecasts to definite areas of country, the Pacific Coast was divided into three districts, designated officially as follows: North Pacific region (embracing Western Oregon and Western Washington), Middle Pacific region (embracing the western portion of California, north of parallel 37 degrees north, or an east and west line cutting the northern edge of the bay of Monterey), South Pacific region (embracing the western portion of California south of parallel 37 degrees north). On May 1, 1886, an order was issued from Washington changing the districts to State areas, and thereafter the weather forecasts were made for the following regions: Washington (embracing the entire State), Oregon (embracing the entire State), Northern California (embracing that portion of the State north of the latitude of 36 degrees, or an east and west line passing through the central portion of Lake Tulare), Southern California (embracing that portion of the State south of the latitude of 36 degrees). There have been several changes in the hours at which the forecasts have been prepared for issue, dependent upon the hours of meteorological observation and the convenience of the press. Observations are now taken throughout the United States at 8 A. M. and at 8 P. M., 75th meridian time, which corresponds to 5 A. M. and 5 P. M., Pacific time. The weather forecasts are issued from the San Francisco office about 9:30 A. M. and 6:30 P. M. daily. An earlier hour cannot be selected because of the want of telegraphic facilities in concentrating the reports at San Francisco from all parts of the Pacific Coast States. The language of the forecasts must largely conform to the official instructions issued from the central office at Washington.

Forecasts of higher or lower temperature are made each morning with reference to the expected minimum temperature of the following morning, and each evening with reference to the maximum temperature expected on the following afternoon. The forecasts of stationary temperature indicate a change of four degrees or less from March to October inclusive, and six degrees or less for the remaining months of the year. In the case of higher or lower temperature a change of one degree or more is sufficient to verify the forecast. A cold wave, in general terms, is defined to be a fall in temperature over an extensive area of 20 degrees in 24 hours, or 28 degrees in 48 hours and to the freezing point or below. Warnings of cold waves are issued when it is expected that the area affected will exceed 100,000 square miles in extent, and in well defined cases for a lesser area. Forecasts of fair weather mean an entire absence of rainfall, but not necessarily an absence of clouds. Forecasts are usually made for a period of 24 hours, but whenever the meteorological conditions are so decided as to dominate the present, and are expected to materially modify coming weather over any extensive part of the country, forecasts may be made for periods of 36, 48 and 72 hours. Generally speaking, it is more difficult to forecast accurately the weather of summer than that of winter, because of the absence in the former season of well-defined storm centers, most of the precipitation being the result of local changes in temperature and wind direction. For a similar reason it is more difficult to forecast the changes of a moderate storm than of those which attend a severe one, because in the latter case the laws of cyclonic development and progression are more closely adhered to, which permits the principle of weather forecasting to be applied with greater success.

DO STORMS MOVE IN CYCLONES? — The



Eureka (Humboldt county) Times of Feb. 26, under the head of "Reminiscences of Former Anniversaries"—Feb. 22—gives an interesting article showing a remarkable regularity in the recurrence of severe storms on or about Feb. 22d, occurring at regular intervals of ten years, from which we extract as follows: Thirty years ago, Feb. 22, 1861, we find by consulting the files of the Times, a fierce storm was threatening which three days later culminated in a thunder-storm, which the Times says equaled anything experienced in the "most tempestuous climate." Thirty years later—the recent anniversary—the thunder-storm was a little "previous" instead of being "tardy" in celebrating Washington's Birthday. Twenty years ago a fierce storm also prevailed all over the State, and became a regular tornado in some districts, uprooting trees, unroofing houses, etc. It caused much suffering and loss among the stock of this county. Ten years ago the coast was also just recovering from a great storm. An item appears in the Times of the 23d, saying that only one bridge remained on the mail route between Arcata and Weaverville.

## SHEEP AND WOOL.

### A Good Outlook for Wool.

EDITORS PRESS:—Without reference to our views of the tariff, etc., we think you will be interested to know of the developments attending the woolen manufacturing industry in the East.

Many months ago there was a movement on the part of English and German manufacturers of cloths and yarns to start plants in this country. Advocates of high tariff on wool and woollens used this inclination on the part of foreigners to prove it, the first desirable effect of the expected tariff against goods of foreign manufacture. They claimed that these foreign plants were to be started in this country because they could no longer profitably manufacture the goods abroad. Protectionists threw much weight upon the fact that these new mills could not bring their employees with them but must hire American labor.

Whether or no the cause assigned for this movement on the part of foreigners was a true one, the prediction has become a reality, and at least one-half dozen new mills finely equipped as to capital, machinery, etc., are now in full operation. It would be interesting to note the number of hands employed by them, which would unquestionably run up to some thousands.

Another feature noticeable among the manufacturers is the starting up and occupation of much machinery that has been silent for a period of time, in some cases as long as two or three years; thus the amount of labor in active employment is increased, and there is no evidence that the foreigners who are at work here are hurting our domestic mills by their competition, but rather imparting new life into the industry.

One prominent fact is, that manufacturers are not able to secure any higher prices for their goods (with the exception of some fancy lines) than before the Tariff bill went into effect, and the people at large are paying no more for their clothing than heretofore. In other words, competition has kept prices down, and there is no probability that the competition will be decreased.

We cannot see how this condition of things can fail to benefit the growers. No one can question that the coming clip will meet with a more active demand than for some seasons past. Undoubtedly some growers looking only at one side of the question, and thinking that the tariff should influence much higher prices for their wool than last season, will hold their clips off the market.

In our opinion those growers who take the most clear and impartial view of the situation will hurry forward their clips to the seacoast markets, and it would seem that such early shipments would bring the highest prices that will rule this season, as they will meet the demand from the manufacturers which is bound to result from the stock of wool on hand, being at present low, and constantly becoming more thoroughly depleted of desirable wools.

New York Wm. McNAUGHTON'S SONS.  
[We publish the above wholly upon the authority of the writers and without endorsement. We do not desire to assume the responsibility of advising a producer as to the time he should market his product. Every man must decide that for himself.—EDS. PRESS.]

ENGLISH OPINION.—It is rather satisfactory to learn that British naval architects entertain a good opinion of some of our recent additions to the navy, conceding that they quite equaled and sometimes surpassed European constructions of a like nature. There is no doubt that if Fate should decree that the 7300 ton commerce-destroyer, which Secretary Tracy regards as the ideal naval vessel, six of which could sweep the commerce of any country from the seas, should be constructed at this port, she would make a speed of more than 21 knots and have boilers that would give better satisfaction than some of the cruisers on the other side of the Atlantic have been giving recently.

## HORTICULTURE.

### Importations of European Grapes.

The importations of European grapes into California have thus far included but a few of the varieties grown in Italy; France, Germany and to some extent Spain being the countries most largely represented in our vineyards. Yet the classic land of the orange and lemon would naturally seem to be entitled to the most particular consideration within the "citrus belts" that form the special pride and source of profit in this State. It is hardly reasonable to expect that the wines of the Rhine, and even those of the Garonne, will be characteristically reproduced alongside of the orange, olive and fig.

Our investigations of the changes undergone by northern grapes in the hot interior of this State, coincidentally with the evidence afforded by the wines to the taste, show that a deficiency in acid and an excess of tannin is the almost invariable result. With the deficiency in acid comes difficult fermentation, and a lack of the "bouquet" that forms the particular merit of the wines of cooler climates; and the result is, hot, tasteless and astringent products of little commercial value, and poor keeping qualities. It is quite otherwise with varieties adapted to the warm climates. Both in Spain and in Northern Italy, excellent dry wines are made, and the grapes which produce the latter have received our special attention during the past three or four years.

So far as I am aware, the only Italian wine grape that came with the early importations was the one now generally known as "Crab's Black Burgundy," and further misnamed "Petit pinot," since the leaf is the only point in which this variety even remotely resembles the true Burgundies or pinots. For it is remarkable for deep color and a good proportion of acid and tannin; qualities in which the true Burgundies are notably deficient. This grape is definitely shown to be identical with the Italian "Refosco."

The next importation of Italian grapes was made in the early eighties by John T. Doyle, Esq., who obtained small numbers of cuttings by mail, and partly rooted, partly grafted them, in his vineyards at Menlo Park and Cupertino. Among his earliest importations were the Nebbiolo, boding in Northern Italy the place that the Cabernet Sauvignon holds in the Bordeaux region; the Barbera fina of Asti and its neighborhood; also the Freisa, the "strawberry" grape, the wine of which resembles not a little that of the Zinfandel. Later importations brought the Aleatico, several Bonardas, the Provanter, Corba barba gelata and Montepulciano; of white grapes the Vernaccia bianca, the Lignaga and Pizzutello.

The publication of the book of Dr. Springmühl on the "condensed must" industry, about this time called my attention to the remarkably high acid (and sugar) contents of the Piedmontese grapes as compared with those of southern Italy; and the study of the varieties imported by Mr. Doyle confirmed the fact that in these grapes we have a group which may probably be relied upon for the making of good dry wines of excellent keeping qualities, under climatic conditions in which those of more northerly origin lose character, and fail as dry-wine grapes.

The detailed record of our results in this line of study will be given in the report for the past four years, now being elaborated for publication, which has been thus delayed by the extra labor incident to the establishment of the new Experiment stations. Meanwhile the promise of this class of grapes was thought sufficiently good to call for the importation of a larger number of varieties. It was intended that this should have been done last winter; but untoward delays in correspondence frustrated the plan. It has now, however, been consummated by the arrival, in excellent condition, of cuttings of 48 varieties of wine and table grapes from the collection of Count Giuseppe Rovasenda, the distinguished ampelographer of Italy, residing at Turin; with whom correspondence has been carried on for some time past by Assistant Paparelli. We are thus placed in possession of an authentically named collection, which will be partly rooted, partly grafted for more rapid propagation, and future distribution.

The following list gives the names and brief general notes regarding these grapes:

- 1—*Aspiran noir*.—This variety is especially cultivated in Southern France, where it is chiefly consumed as a table grape. It makes also a bright-colored and delicate wine, very good for table use, but somewhat thin for the trade.
- 2—*Cipro nero*.—Variety from the island of Cyprus, where it makes the best wines, called "la Commanderia." It is also a very nice table grape but of late maturity.
- 3—*Cipro*.—Under this name we received a few cuttings that we suppose to belong to the white variety.
- 4—*Cesanese nero*.—Variety from the "Campagna di Roma," where it is most abundantly cultivated and gives a fine and strong wine.
- 5—*Grisa di Piemonte*.—A late variety adapted both for wine and table use in Piedmont.
- 6—*Negro amaro*.—Variety from the "Puglie" region (Italy). It is a good bearer and makes good wine.
- 7—*Negro dolce*.—According to Pulliat, this seems to be a synonym of *Dolcetto nero*.
- 8—*Paga-debito*.—A black variety from the "Puglie." Good for wine, abundant bearer.
- 9—*Morica*.—A black grape. Its wine is one of the best made in Sardinia.
- 10—*Neiretta*.—This black variety is very much cultivated at the Saluzzo vineyards, Piedmont. It is a heavy bearer.
- 11—*San Giove*.—A Tuscan variety, which,

\*No description available.

blended with *Canajolo* and *Malvasia bianca* (without perfume), makes the majority of good Tuscan wines. According to Count Rovasenda's experiments, it would make a good blend with *Freisa* and *Barbera*.

12—*Tadone*.—A Piedmontese variety, bearing large bunches and making a strong and dark-colored wine. It requires long pruning but is a somewhat irregular bearer.

13—*Bolgnino* or *Nebbiolo di Dronero*.—This is also a Saluzzo variety, but different from the true *Nebbiolo*. It makes however, a good wine.

14—*Neiretto grosso canavese*.—From Piedmont. A grape of abundant acidity and of fairly deep color.

15—*Croatina*.—Especially cultivated at Voghera, Piedmont. It has a round, black berry larger than the *Bonarda*. In deep soils produces a well-colored wine.

16—*Danque*.—A Southern French variety, identical with the *Gros Guillaume* from Nice, possessing large berries, but of late maturity.

17—*Antibo*.—Large-berried, black; cultivated at Saluzzo for table use.

18—*Quagliano*.—Table grape with large black fruit of great delicacy, especially if cultivated in light soils.

19—*Ocu di bove*.—Black variety from Sardinia, very large-berried, late maturity.

20—*Bermestia violacea*.—Grape variety from Piedmont. It has very large berries.

21—*Pelaverga*.—Another Saluzzo variety, cultivated especially for table use. It is an abundant bearer; bunches reddish-black and large berries. In the Saluzzo county it is also used to make a special carbonated sweet wine.

22—*Crocto* or *Moretto*.—Another Piedmont variety, giving a dark-colored must.

23—*Corbeau*.—This variety is already known in California.

24—*Chenin noir*.—A French variety giving a well-colored wine.

25—*Mammolo toscano*.—A Tuscan variety of late maturity in northern exposures. It is little colored and possesses a violet bouquet.

26—*Barbarossa di Finalborgo*.—Another one of the several Barbarossa varieties of Italy. It is good both for wine and table use and also as a keeper for winter use.

27—*Favorita*.—According to Count Rovasenda, is identical with the "*Vermellino di Liguria*," a good white variety both for wine and table use.

28—*Vernaccia sarda*.—A white variety from Sardinia. Large bearer; good for wine. In Count Rovasenda's collection it gives an immense crop.

29—*Olivette de Cadenet*.—A white table-grape variety from France. Late maturity. It seems identical with the *Crujidero*.

30—*Cuarattu a la Porta*.—A White Sicilian variety for wine. It is a heavy bearer, with large and yellow-colored berries, but matures late. The Catarattu varieties are used in making the famous Marsala wines.

31—*Malvasia di Brolio*.—A Tuscan variety for wine. It is a heavy bearer.

32—*Erbabus di Caluso*.—A Piedmontese white variety especially used for "vins de liqueurs."

33—*Picpoule*.—A variety from France. Grape of good acidity but of late maturity.

34—*Malvasia Rovasenda*.—A seedling obtained by Baron Mendola, the Sicilian ampelographer. It is a good and reddish-black colored grape which deserves to be propagated.

35—*Lambrusco di Gorbato* (perhaps di Sorbara).

36—*Gorbo*.

37—*Malvasia de la Cartuja*.—A white Spanish variety.

38—*Bellino*.—A Piedmont black variety, fine for table use; identical with "*Imperial nero*."

39—*Negrara di Gattinara*.—A black, good variety, but it is very much attacked by "Oidium."

40—*Passaretta*.—A variety cultivated in Piedmont both for wine and raisins. Their berries are very like a bird's-eye.

41—*Crujidero*.—A Spanish white variety, good for table use. It is fine-looking, but of late maturity.

42—*Pis-de-chèvre*.—A variety cultivated in France, but obtained from Hungary; it has pointed and ellipsoidal berries. There are two varieties—one white and one red.

43—*Torok goher*.—A black Hungarian variety. It seems to be a valuable grape.

44—*Cobutam Cucco Bitondo*.

45—*Neiretto di Collucello*.

46—*Bersan*.

47—*Trivati*.—A good black variety from Sicily.

48—*Zinzillosa*.—A black variety resembling somewhat the "Mourastel."

Information has been already asked from Count Rovasenda in regard to the Nos. 3, 35, 36, 40, 42, 44, 45, 46, the labels being somewhat obliterated, or incomplete as to white or black variety.

### Importations of Olives.

The following varieties of olives have lately been imported from the highly reputed nursery of R. Pecori of Florence, under the auspices of Prof. E. Becchi, the director of the Agricultural Station at Florence:

1—*Bella de Spagna*.—Its oil is very fine, but it is generally used for pickling.

2—*Lecchino*.—On account of its hardness ought to be propagated in those regions frequently subject to damage by frost. The fruit is pretty large and fleshy, but not rich in oil; it is, however, a heavy bearer.

3—*Olivio piangente* (weeping olive).—This beautiful variety is somewhat delicate, therefore it requires mild regions, where it will be a good bearer. Its fruit yields a very agreeable and sweet oil, but it is also good for pickling purposes.

4—*Santa Caterina*.—Bearing large fruit very fine for pickling.

5—*Infrantoio*.—One of the best olive-oil varieties from Tuscany; large bearer.

6—*Correggiolo*.—According to Prof. Caruso is the same as the *Infrantoio*.

7—*Morinello*.—This is widely cultivated in Tuscany because it stands cold weather and the action of the wind very well. The fruit contains more flesh than the *Infrantoio*, but the oil is not so fine.

8—*Ascoli*.—Bearing large fruit, very fine for pickling purposes, of high value both for Italian and foreign markets.

These trees are now growing finely on the grounds of the station at Berkeley, and will be propagated as rapidly as possible for distribution to the sub-stations, and thereafter to olive culturists at various points within the State.

### Walnuts in Ventura County.

EDITORS PRESS:—For the past year there has been a growing sentiment in favor of the walnut as a profitable tree to plant in Ventura County.

The few orchards already in bearing have been so remunerative that the demand for trees has been very great. Probably 1000 acres have been set to walnuts since Jan. 1st. Some bearing orchards having a water right have sold for \$500 per acre.

The prevailing opinion among those who have raised the walnut in this section seems to be that good bean land is good walnut land; and that 25 miles from the coast they would not be profitable, owing to the dryness of the atmosphere, and the hot sun, which would prevent the nuts from filling well.

In apparent contradiction of this accepted theory is the experience of Mr. E. H. Decker of Cienega, who has an orchard of 500 trees fully 30 miles from the sea. The soil here is a sandy loam with water close to the surface. His trees have borne the past four years an average of 100 lbs. per tree. This orchard is but 12 years old.

On being asked if the nuts filled well, Mr. Decker replied: "You shall judge for yourself. Sacked walnuts usually weigh 60 pounds per sack. Mine this season weigh 76 pounds."

Mr. Decker says his trees are perfectly healthy, with no diseased tops—another contradiction of the generally accepted opinion that if the tap-root of the walnut finds too much water it will become affected with diseased top. Mr. Decker's theory about the matter is that the water on his place is pure, and that it is alkali that destroys the tree and not water.

If the top is unhealthy, it indicates diseased root, and in Germany they cut off the diseased and decayed tap-root to cure the tree.

Mr. M. Cannon, President California Alliance, two years since successfully transplanted 430 walnut stubs 13 years old without the loss of a single tree. He considers they make the best tree in the world; and this orchard does certainly present a very fine appearance, every tree as straight as an arrow. Mr. Cannon expects a crop from these trees in another year.

He says he would most decidedly not plant the nut where he wished the tree to grow, as some have advocated. First, because it is too much trouble to care for them when small; second, the trees would not grow straight on account of prevailing winds, and for the latter reason he would never transplant a walnut tree less than three years old. In conclusion, Mr. Cannon remarked: "I would much rather pay \$10 for a tree ten years old than ten cents for any other."

Mr. C. has 12 acres in walnuts already in bearing. These trees were set out 14 years since and have been in bearing four years. This season the crop brought him \$1400.

Mr. C. Barnes, a neighbor of Mr. Cannon, thinks he should prefer to plant the nut where he wished the tree to grow, but would plant assorted nuts from the largest bearing trees, as they would produce much sooner. He had trees bear at six years old when set out by a hearing orchard; says that when trees bearing catkins are near a young orchard, the trees fruit much earlier.

Mr. Peter Barnett, on the Avenue two miles from the sea, has 17 acres of land, for which he paid \$11,000 three years since, 12 acres of which are in walnuts. His trees are 12 and 14 years old, and this year produced ten tons of nuts, which sold readily at ten cents per pound.

Ventura. M. E. DUDLEY.

### The New Olive Oil Law.

The following enactment has received the Governor's signature and is now in force in this State.

An Act to Regulate the Sale of Olive Oil:

SECTION 1. Every manufacturer or dealer of olive oil shall place upon every bottle or can filled with olive oil, and exposed or offered for sale as such, a label stating clearly the name and address of the manufacturer or dealer, and the place of manufacture, and shall file with the State Board of Horticulture a copy of said label, accompanied by an affidavit that it is pure, and that this Act has been complied with.

SEC. 2. Whoever adulterates olive oil, sells, or keeps for sale, oil not olive oil, and exposed or offered for sale as olive oil, within the State of California, is guilty of a misdemeanor, and upon conviction thereof before any Justice of the Peace of any township of legal jurisdiction, shall be fined in a sum not less than fifty dollars nor exceeding one hundred dollars, and cost of the action, for each offense, or may be imprisoned not less than fifty days nor more than one hundred days, or by such fine and imprisonment as the judgment of the Court may direct.

SEC. 3. This Act shall take effect and be in force from and after its passage.



## PATRONS OF HUSBANDRY.

In our Rural Press Official Grange Edition, issued every week, will be found additional matter from this and other jurisdictions, of interest and importance to Patrons. Any subscriber who wishes can change free to that edition.

### The Master's Desk.

R. W. DAVIS, W. M. S. G. OF CALIFORNIA.

Don't be surprised to hear of the organization of some more Granges. The wind is in our direction. People want something conservative, yet outspoken, something with a history yet not moss-covered; something purifying but not partizan; something earnest but not too haughty. They appreciate thoughtfulness, and the thoughtful farmer says: "I know the Grange; it is true, it is tried; it is sincere; it is progressive; it will do me; enroll my name, for I want to be a Granger and with the Grangers stand."

Put on your spring suit and start to work for the Grange! At this season, surely, the Grange cause ought to flourish, for the Grange is purely an agricultural organization, and agriculture is now in its growing and blooming season. Help the Grange! Get one new member to join, and by so doing, you will honor yourself and benefit a neighbor.

What do you think of having a five-minute "Conversation meeting" at your next Grange session? Perhaps such an effort might induce some of your diffident members to come to the front with a neat little talk.

It will be for the Good of the Order to have more good public schools and a larger attendance at each school; to have more legislation for the industrial interests and less for the corporations; more sociability, with more confidence and less unbusiness and less diffidence; more economy and more perseverance; more members and more unity of action; a better understanding of the rights and duties of farmers, and a much more emphatic way of condemning and punishing wrong and wrong-doers. More work by the present membership will insure a great gain of power, of confidence and of membership.

Merced Grange had a unique and profitable Basket Social a few evenings since. Each sister of the Grange prepared a lunch-basket for two persons. These baskets were sold at auction to the highest bidder for cash. A maximum limit of \$1.50 was put on each basket. This was done to prevent any excessive price being paid by rival bidders. Each basket contained a card on which was written the name of the sister who prepared the basket and its contents. The lucky buyer thus knew whom he was to dine with, for the one who bought the basket understood he was to invite the lady whose name was on the card to eat with him. Thus the boys found out who the good cooks of Merced Grange are, and, if reports be true, several of the fair sisters of Merced are about to accept positions for life, and the Grange treasury is "flush" accordingly just the same.

There is a bright prospect for an excursion to the Oregon State Grange, which meets May 26, 1891. How many would like to go, provided the railroad company will give reasonable rates, tickets to be good for 60 days? By next week's RURAL we hope to be able to give full particulars.

Picnics are announced, under Grange auspices, at Loomis, at Tulare, at Bennett Valley, at Elk Grove, at Yuba City and at Merced. Grange reunions and the Harvest Feast are announced at Enterprise, at American River, at Two Rock, at Bennett Valley, and the good work goes on.

The youngest child of the Grange family in this State organized last Saturday at Plainesburg, Merced county. Sister Nettie Brown, with her untiring energy, is entitled to the credit and to the money. There are 23 names on the charter list.

Promptness, yes promptness; that is what this paragraph is about. How about it; are you always prompt? Do you meet your creditors promptly? Do you attend your Grange promptly? Does the Grange meet at the hour named? Is the Master a man noted for promptness? Are his assistants as prompt as they ought to be? Are the members more prompt than the officers? Who is the most prompt person in your neighborhood? Does he belong to the Grange? If not, you ought to have him join. He will make a useful and model member. But to conclude: Be prompt in all things; teach promptness to your children, both by precept and example; encourage the old and the young to be prompt, for life is too short for one, or a body of people, to wait for somebody else. Promptness is a virtue; yes, a cardinal virtue.

### Farmers' Picnics.

Everybody likes them. They benefit wives, children and all. Let them be held in every county and hamlet. Send announcements as early as possible to the RURAL PRESS. If speakers are wanted, write to the Master or Secretary of the State Grange.

## Legislative Anti-Reform Voters.

### Record of Ayes and Nays on Reform Bills

EDITORS PRESS:—At the request of the Legislative Committee of our State Grange, I have remained in Sacramento city since the 19th of February, laboring to secure the passage of those measures recommended by the committee. From your letter bearing date Feb. 23, 1891 and other sources, I find that the Grange has indorsed such legislation as shall be necessary. First: To secure the reassessment and collection of taxes on such property as may have escaped taxation since and including the year 1883. Second. To provide for the Australian system of voting. Third. To elect United States Senators by direct vote of the people. Fourth. To provide for the organization of mutual fire insurance companies, and Fifth. To provide for the collection of taxes semi-annually.

Bills to accomplish these objects have been introduced in the Legislature and pressed with energy by the Grangers and their friends. The bill to provide for the reassessment and collection of back taxes, known as the reassessment bill, introduced by Senator Berry of Tulare, and which, had it become the law, would have compelled certain railroad corporations in this State to pay into the State Treasury something over \$4,000,000, found but few friends in the Senate. On the 10th of February, on the question of final passage, the roll call shows 10 ayes as follows: Berry, Crandall, Goncher, Heacock, Langford, McGowan, Mead, Ostrom, Shippee, and Wilson. Nays: Baily, Banks, Britt, Broderick, Byrnes, Campbell of Solano, Campbell of Siskiyou, Carpenter, Dargie, DeLong, Denison, Dray, Everett, Frazer, Hamill, Harp, Maher, Mahoney, McComas, Ragsdale, Simpson, Sprague, Streeter, Voorhies, Welch, Wm. H. Williams and Geo. H. Williams—27.

This vote demonstrated the fact that no law could be passed at this session of the Legislature by which the lordly railroad corporations of California should be compelled to pay their taxes, and made to bear their just proportion of the burdens of Government, as other tax payers are compelled to do.

The bill to provide for the Australian system of voting met with but little opposition in the Senate. In the Assembly, however, the opponents of the measure, under the leadership of Assemblyman Dibble, backed by a powerful lobby, first determined it should not become the law, and resorted to all manner of parliamentary tactics to secure its defeat; but recognizing the universal demand for the purification of the ballot-box, for improved methods of voting and a trial of this Australian system, they became alarmed and the measure passed with but three dissenting votes—Dibble, Bruner and Galbraith. After a careful examination of this law, I am led to believe that when the people come to understand its provisions and familiarize themselves with its workings, they will appreciate the difference between a secret and independent ballot and a ballot cast under the eye and direction of the bosses.

I believe our law is the best guarded and most complete in detail of any yet enacted in this Union. This Act will do much to atone for the many sins of omission and commission of this very, very bad Legislature.

A bill has passed submitting to a vote the proposition of electing U. S. Senators by direct vote of the people instead of by the Legislature, as now. The only good to be accomplished by this will be to demonstrate the unanimity of opinion upon the subject. I believe when the vote is had it will be substantially unanimous, and if so, should be regarded by our Senators and Representatives in Congress as a demand that they labor for an amendment to the Constitution of the United States to provide for the election of U. S. Senators by the direct vote of the people. The bill introduced by Senator McGowan of Humboldt providing for county mutual insurance companies was carefully prepared, and on the whole a good measure. Farmers could have organized under its provisions and insured their property at less than half the cost now imposed by the insurance ring. The bill, however, was defeated through the influence of the well-organized insurance companies.

The bill prepared and approved by the Grange Committee and introduced by Senator Ragsdale of Sonoma county, and known as the Grange Mutual Insurance bill, came up on third reading March 6th and was refused passage by the following vote: Ayes—Baily, Berry, Carpenter, Crandall, DeLong, Denison, Dray, Flint, Heacock, McComas, Ostrom, Preston, Ragsdale and Shippee—14. Nays—Banks, Britt, Broderick, Byrnes, Campbell of Siskiyou, Dargie, Everett, Frazer, Goncher, Hamill, Harp, Maher, Mahoney, Simpson, Sprague, Voorhies, Welch, Wm. H. Williams and George H. Williams—19. Ostrom changed his vote and gave notice of a motion to reconsider the vote by which the bill was refused passage. On the 13th inst. Ostrom's motion to reconsider was lost by the following vote: Ayes—Crandall, DeLong, Dray, Flint, Heacock, Langford, Mead, Ostrom, Preston, Ragsdale, Shippee and Streeter—12. Nays—Banks, Britt, Broderick, Byrnes, Campbell of Siskiyou, Carpenter, Dargie, Denison, Everett, Frazer, Goncher, Hamill, Harp, Maher, Mahoney, McComas, Simpson, Sprague, Voorhies, Welch, Wm. H. Williams and George H. Williams—22. Thus the Grangers and producers of this

State were denied the right to organize and mutually insure their property.

The names of the Senators above, who, by their votes, refused to relieve us from the merciless extortion of the insurance ring, should be marked by every Granger and Alliance man in the State, and held in remembrance. I am informed that this insurance combination, during the last year, divided among themselves \$6,000,000 in dividends, drawn from the productive industries of the State, much of which could be saved to the producer under the proposed legislation.

The bill providing for the payment of taxes semi-annually has passed the Assembly and is now on the Senate special file, and possibly may pass that body and become the law. [Passed]

The contest now raging at the Capital to determine who shall fill the unexpired term of Senator Hearst overshadows all legislation, and when that question is settled the prevailing opinion is that adjournment *sine die* will soon follow.

The per diem of members was out off on the 5th of March by the Constitution; hence, every day they remain in session is money out of pocket to all honest members, and all snob, long to face homeward.

Sacramento, March 19, 1891.

### Tulare Grange & F. A. Picnic.

Worthy Sec'y and Bro.:—The last meeting of Tulare Grange was largely attended; besides the regular business, the tramp question was ably discussed. At a previous meeting the Grange voted to hold a picnic this spring and invite the Farmers' Alliance to participate. The Alliance has accepted and the date of picnic set for May 9th. The Grange will offer an address of welcome for the Alliance to respond to. It is proposed to invite able speakers for the afternoon—one a Granger and the other an Alliance member, each Order to secure its own speaker. It is proposed to make the salt-grass dance with joy, while the snow-capped Sierras reflect a brighter smile than ever before over this valley and the old and young then gathered under the old oaks. Come all Patrons who can, including ye editors of the RURAL. I will write you further after our next meeting. The Alliance holds its county meeting April 1st. I think the County Alliance will be with us. While I am not a member of the Alliance, I am on the best of terms with them and hope I may always continue so while I am an officer of the Grange. Fraternally,

E. C. SHORMAKER, W. M.

Visalia, Cal., March 25, 1891

### San Lucas Picnic and Barbecue.

EDITORS PRESS:—San Lucas Grange has made arrangements to celebrate May Day in the good old style by having a public picnic and barbecue enlivened by a cornet band, dancing and a ball at night. We will not orate or specify, as we are going in for fun. We will be pleased to welcome members of the Grange, but trust they will not forget to bring with them the A. W. and a few necessary signs of recognition.

On the 14th of March we adopted resolutions regretting the death of W. Treasurer C. J. Cressey and voted that our charter be draped for 30 days.

I am glad the Executive Committee have made business contracts with S. F. firms on the trade-card system. I think it will materially aid the Order. The only drawback is the fact that we grain farmers receive our cash only once a year, and have to run on credit in town between times.

An organ has been added to our Grange furniture. We expect more music when we sing "In the Sweet By-and-by." Fraternally, San Lucas March 29. S. SHERWOOD, M.

### San Joaquin County Pomona Grange.

There will be a special meeting of San Joaquin County Pomona Grange in Stockton Grange hall on Saturday, the 25th day of April, commencing at 10 o'clock A. M. The order of the day is discussion of the practicability of the Stanford land loan.

Is there to be a meeting of the Executive Committee of the State Grange April 14th? Fraternally yours, J. D. HUFFMAN, Sec'y. Lodi, Cal., March 31, 1891.

[There will be a business meeting of the Executive Committee April 14th.—EDS.]

SAN JOSE GRANGE.—At a regular meeting of the San Jose Grange March 28th, E. T. Pettit presided and S. P. Saunders acted as Secretary. Resolutions of respect to the memory of C. J. Cressey were adopted unanimously. A selection, entitled "Widow Brown's Christmas," was read by Prof. J. W. Worthen. Some of the lady members suggested as the subject for discussion next week the advisability of allowing women to hold the position of school trustees. Next Saturday was appointed for reading the Grange paper.

HON. C. C. COOLEY of Cloverdale, formerly of the State Grange Executive Committee, and Mrs. Cooley are on their way East. They will visit friends in Topeka, Kansas, and also in Ohio, and we hope our readers will receive some interesting notes from Bro. Cooley's always welcomed pen.

## Government Land Loans Constitutional.

EDITORS PRESS:—The report of the Senate Finance Committee against the constitutionality of the land loan bill has not surprised Senator Stanford or the friends of the measure. The political history of our country furnishes many instances of official and private opinion on the constitutionality of proposed action or legislation of the Government.

Salmon P. Chase supplied the sinews of war, legal-tender government notes, in spite of the opinions of eminent lawyers that the Government had no constitutional power to make any money, except gold and silver coin, legal tender for debt.

Abraham Lincoln met the official opinion of Attorney-General Black, "that a war upon seceding States was unconstitutional," with the declaration that war made these United States a sovereign and powerful nation.

To save the Union, he freed the slaves, notwithstanding the gratuitous legal advice of eminent constitutional lawyers "that as slaves were recognized as property, it would be unconstitutional to take them from their masters without due process of law and without compensation." The writ of freedom was issued and was executed by the army with victories.

The Supreme Court of the United States at first seemed to incline to the close-construction opinion, that the Government's authority to make greenbacks was derived from the "war power" rather than a grant of constitutional power, and that as a consequence, the legal-tender notes issued since the close of the war were not a legal tender for debt, but the Supreme Court, during Grant's administration, with a full bench and some new stalwart American judges, decided that Congress had the implied constitutional power to issue treasury notes and make them a legal tender for debts at any time when deemed advisable. Thus is established in the Government of the United States the exclusive power to make money and to supply the country with money as a circulating medium when needed for that purpose, which is a correlative duty to the governed. Money is the lifeblood of business, and enriches the Government that supplies and the people who use it.

The supply of gold and silver is now inadequate to the world's demand for coinage, and some new currency is needed to take the place of the National bank currency issued by the Government on United States bonds as security that is being rapidly withdrawn, owing to the redemption of the bonds. In this emergency, Senator Stanford simply proposes a currency based upon lands, a coinage of land value, the same as gold and silver are deposited, and certificates of deposit issued as money, or as United States bonds are now coined for National banks. His aim is to place the land-owner on the same footing as the bond-owner, and have real property used by the Government as security for the redemption of the currency. The forces of the industrial world are his allies, while the world of politics and finance is in opposition by reason of self-interest.

This is a Government of the people and for the people, and never fear, the right, the reasonable and the lawful will prevail in the battle of ballots that is not far off. The bullets settled a good many constitutional questions, and ballots will settle the rest of them in favor of the best interests of the voters. As precedents for Government loans, I cite the following: National bank notes are signed and issued by the United States Treasury to the National banks upon the United States bonds as security for their redemption, and are, as a rule, redeemed by the Government out of the United States Treasury. The fact that they are signed and redemption guaranteed makes them National bank notes, and it is not true that the Government simply authorizes the banks to issue them.

The distribution of the supplies to national banks was practically a loan by the Government to banks on call and without interest, and they still have most of the money in spite of the demand of the present administration for its return to the treasury, it not being convenient for the banks to do so, as substantially the Secretary of the Treasury has reported.

The Central and Union Pacific Railroad companies borrowed, and the Government loaned to them, more than \$60,000,000 in United States bonds in aid of building the roads, and the Government received from the companies as security for the loan a mortgage on their property. Senator Stanford has stated and further testified that the bonds so received were sold at a discount for gold. The present chairman of the Finance committee was then in Congress, and evidently thought that a loan of United States bonds to a corporation upon security of what resulted in a second mortgage on railroad property, already mortgaged for all its cost and more than it was worth, was a safe constitutional loan of the nation's money.

Now, when the people ask for onerousness based on the security of twenty billions of dollars worth of real estate, yielding an annual income of more than five billions of dollars, the chairman scents the idea and condemns the measure as "unsafe, unsound and unconstitutional."

In this argument I have not knowingly misstated any facts or drawn any false conclusions.

W. H. AIKEN.

Santa Cruz.



## FARMERS' ALLIANCE.

SUBSCRIBERS wishing fuller information of the Alliance can have their names changed to the Grange Edition of the RURAL PRESS free, much to their advantage, this department being continued in the same.

## Shenandoah Valley Alliance.

Bro. S. C. Wheeler, an old worker and writer in the Grange cause, writes from Plymouth, Amador county, March 26th, in his usual faithful manner, as follows:

The Farmers' Alliance seems to strike the average farmer like a pretty severe electric shock, and there is a general rush, by our farmers up this way, to secure membership. Shenandoah Valley Alliance, only recently organized, has a membership of 32, and quite a number have their applications for membership before the Alliance. I like the aggressive character of the Order, and I believe that it will secure to the farmer and the laboring classes generally what the Declaration of Independence secured for the Colonies. They secured freedom from British tyranny.

## Freedom from Tyranny.

Ours will secure freedom from the tyranny of bossism in politics and the freedom from class legislation that grants to the aristocratic moneyed power all they require and refuses to recognize the demands of farmers and laborers. Most of the States have enacted laws to protect their own citizens, by prohibiting the indiscriminate carrying of deadly weapons.

## \$100,000,000 for a Navy.

Congress has appropriated more than \$100,000,000 of the people's money to arm and equip the navy. It is claimed that all this warlike preparation is purely to defend our own possessions. The most reasonable inference, however, is that the ultimate designs are aggressive. Moses commanded his 12,000 soldiers to destroy the Midianites and take for their own use all their possessions, because the Lord commanded him to do so. Can Congress claim that the American people are in danger of invasion and have required of them to enact laws authorizing such immense appropriations? No; it is the demand of Wall street and the millionaire U. S. Senators. The ultimate designs are not for protection, but for invasion. If I desired to raise a family of boys of an aggressive, intolerant and avaricious nature, I would arm them with the latest approved pattern of fire-arms, teach them to demand respect from their associates and to enforce the demand at the rifle's mouth, just as I conceive the Congress of the United States is endeavoring to do with the American people.

S. C. WHEELER.

## The Alliance in Butte County.

Subordinate Alliances have been formed at Moore's Station (called Honcut Alliance) with J. N. Armstrong, Pres., and Allen Wright, Sec.; at Central House with Uncle Jimmie Robinson, Pres., (our informant couldn't give names of other officers); at Gridley with George Thresher, Pres. and Frank Campbell, Sec.; at Biggs with D. Hurlbut, Pres. and A. K. Baker, Sec.—Oroville Mercury, March 27th.

Delegates from the five sub-Alliances of this county met here March 24th, and organized the Butte County Farmers' Alliance, with the following officers: Pres. J. S. Crain; Vice-Pres., Geo. Thresher; Sec., Jas. Myers; Treas., J. W. Long; Chaplain, Mrs. G. D. Wickman; Doorkeeper, J. I. Lewis; Assistant, Mrs. E. J. Robinson; Sergeant-at-Arms, C. W. Thresher; County Business Agent, D. Streeter. D. Hurlbut of Biggs was recommended for County Organizer. The next meeting of the County Alliance will be held at Biggs in July. Localities not yet organized are requested to confer with the county organization. The following delegates were present. Liberty Alliance, No. 1, J. V. Moore, C. D. Gridley and Jas. Myers. Honcut, No. 2, Mr. and Mrs. J. N. Armstrong, H. A. Hearing, Dr. Hucksins, and Mrs. M. D. Abby. Biggs, No. 3, Daniel Streeter, E. D. Smith and W. N. Winn. Central, No. 4, Jas. Robinson, P. Heiner, Jr., Mr. and Mrs. R. Chester. Gridley, No. 5, J. S. Crain, V. P. Richards, J. W. Long, G. W. Wickman, Mrs. C. W. Thresher.—Gridley Herald, March 26th.

## Alliance Notes in Washington.

At Tekoa the Farmers' Alliance purposes building a mammoth warehouse which will be twice the size of any building in the city. It will be finished in time for storing this season's crop and will be of vast benefit to the members of the Alliance. These buildings, owned by farmers will be quite numerous throughout the country by next fall.

The Industrial Federation of Washington was organized March 20th at Oakesdale. It forms an Alliance between organized labor and the Farmers' Alliance. It is proposed to hold the first regular meeting the second Monday in December at Ellensburg.

James Sliver has resigned the position of manager of the Alliance implement establishment at Oakesdale. He is succeeded by Mr. John L. Wolever. The stockholders of this company met here last week and voted to increase its capital stock from \$10,000 to \$20,000.

On March 21st the State Alliance and trades councils from different points met at Oakesdale and transacted unimportant business.

## Encouraging from Brighton Alliance.

EDITORS PRESS:—Not having seen any notice of our Order, Brighton Alliance, No. 252, in your valuable paper, I wish to advise you and the Alliances throughout the county and State that, despite general sickness in our midst, we have made rapid and steady progress since our organization. We organized with only 13 members, but we have grown to 33 members, with 12 applications on file. This growth has been made within six weeks, and during a time when every one had la grippe. As sickness has almost disappeared and the weather become pleasant, we expect a large increase in membership during the next few weeks. Indeed, it will not be long until every desirable person in the neighborhood will be in the ranks.

We have an earnest, intelligent and enthusiastic lot of brothers and sisters, and it is certainly gratifying to see the avidity with which they are entering into the work of the Order.

If every district schoolhouse in the Union had just such an Alliance as ours, it would not take as much as time to cleanse the present corrupt and foul legislation and administration of the laws of our free country. At last the farmers and workingmen have lost the former political enthusiasm (deception) and have settled down to study and reason for themselves. True, they have been led by politicians, but that time will soon be past; they see too plainly that no matter which party (they are as one) is in power the farmer goes on paying more and more taxes and never gets a grain of the promised and expected relief. We have tired of this—been fooled too long, and are undergoing a radical change.

In our Alliance are the leading men of both old parties, men who have worked and voted for the Democratic party and men who have worked and voted for the Republican party for years to their own detriment and disgust. But time has wrought a change, and it is certainly encouraging to see the people of both parties consulting and discussing with earnestness the deplorable situation of our country.

"Rome was not built in a day," neither do the working classes expect to transform the corruption and oppression of the present time without an opposition and a determined resistance; but by a deliberate,

## Determined and Persistent Movement

Along the line we are going to win and restore that prosperity and happiness enjoyed for years after the Civil War and before the laws became intricate and the Government came under control of the depraved and moneyed power of the nation.

We had a lively meeting two weeks ago, when four ladies and one gentleman were initiated. The County Lecturer, Bro. Krull, was present and added animation and wisdom to the session. Bro. Burns of Oak Park Alliance was also on hand with his usual earnest and instructive address. Last Friday evening we held another interesting meeting, when delegates were elected to the county meeting which is to take place on April 3d at Elk Grove. We anticipate an interesting and encouraging meeting at "The Grove," and hope some of the organizers and leaders of the movement will be present to assist and encourage the work.

I thank you, Bro. Dewey, for the directory, which is duly appreciated and was much needed to assist in carrying out the Secretary's work.

## A Noble Man Gone.

By Dr. Manlove's death, Brighton Alliance lost her ablest member and the County Alliance an efficient officer. Suitable resolutions are being drafted by our committee and will be presented at the next meeting. I will forward a copy in due time. A. D. MURPHY, Sec.

Perkins, March 24, 1891.

## Alliances in Oregon.

SALEM, March 27.—Col. D. J. Cole, National Organizer of the Farmers' Alliance, arrived in Oregon a few weeks ago. The Colonel has organized eight local Alliances, five in Lynn and three in Marion. This entitles Lynn to a County Alliance, which will soon be organized. The Organizer thinks he can organize a local union in Salem to-morrow, and is anxious to form a County Alliance. He will visit the entire State.

Forest Grove Times, March 13: Col. Cole, from Kansas, is now in this State for the purpose of organizing Farmer's Alliances. The friends of the movement are anxious to form a State Alliance as soon as it can be done. If the organization grows as rapidly in this State as it has done in other States, it will soon be a factor that will be consulted with respect by the ambitious office-seeker. Many of its principles are such as the friends of good government can heartily indorse, and with a little experience many men will be brought out of the ranks who will enact laws that will be so plainly worded that there will be no need to send them to the Supreme Court for an interpretation. The country needs a little honest sense at the head of affairs, and the Farmer's Alliance may yet furnish us this greatly needed element.

CONTRA COSTA COUNTY FARMERS' ALLIANCE. A Farmers' Alliance has been organized with the following officers elected: Pres., Nathaniel Jones of Lafayette; V. P., A. F. Boney of Diablo valley; Sec., H. C. Wetmore of Clayton; Treas., Aaron Samuels of Concord; D. K. William Stone of Walnut Creek; Steward,

Wm. Hemme of Alamo; Chaplain, Mrs. Toney of Antioch; Business Agent, R. O. Baldwin of Danville. On April 1st the County Alliance will meet in Byron, which will be the first regular quarterly meeting. The meetings will change around among the five different Alliances in the county. Farmers predict a good future for the movement.

## Humboldt County Alliance Notes.

The Farmers' County Alliance will convene at Eureka on Tuesday, April 7th. Bro. H. C. Hanson, President, in Eureka Watchman, says that a full delegation from all the sub-Alliances is earnestly desired, as a thorough and complete organization will be necessary to dispose of such business as may come before the Alliance.

The sub-Alliance at Table Bluff held a rousing meeting on March 21st, at which six new applications for membership were received.

County Organizer John R. Smith has addressed the citizens of Dow's Prairie and Blue Lake on the objects and principles of the Farmer's Alliance.

BYRON ALLIANCE.—F. R. of Byron, Contra Costa, in Livermore Herald: On Thursday, the 5th of March, ten men from around Byron started a Farmers' Alliance. Mr. Burdette Cornell, a young man from the East, now a member of a Santa Barbara Alliance, was the organizer. Although a young man of but 20 years, he knew what he was talking about and met with success. He organized in Antioch, Lafayette, Walnut Creek and Concord, besides Byron. The officers of Byron Alliance are as follows: J. C. Preston, President; Alonzo Plumbly, Vice President; M. Grover, Treasurer; W. J. Caseellmann, Secretary; J. Antrun, Doorkeeper; W. Chilson, Assistant Doorkeeper; L. A. Chilson, Chaplain; F. E. Collins, Steward; Volney Taylor, Lecturer. On Friday, the 13th, another meeting was held, and Mr. Cornell, being again present, delivered a very able speech, and 15 more candidates joined. The next regular meeting came off yesterday, March 21st, when three more candidates were admitted and five or six others made application.

## THE VINEYARD.

## Grape-Growers' Meeting.

The meeting of grape-growers in the Saratoga Wine District took place on Tuesday afternoon, March 24th. It was held in the H. V. A. hall, on the Mountain View and Saratoga road. The attendance was quite as large as was expected, about 75 having responded to the call. Colonel Hall was elected temporary chairman and Mr. Sontheimer, Manager of the Pacific Winery, San Jose, secretary. The chairman briefly stated that the object of the call was to afford the grape-growers of the west side of the valley an opportunity of organizing for self-protection against the wine-makers and wine merchants combinations. It was pointed out that the wine merchants, and chiefly those of San Francisco, have been enabled for several years to fix the prices which the local wineries should pay the grape growers for their grapes. By combination they have forced grapes down in less than seven years from \$25 to \$9 a ton. The grape-growers, as stated, cannot make any money at these low prices—to many of them such prices mean loss and not gain. The grape-growers have therefore been forced to the conclusion that their only chance of escaping the ruin that the wine-makers were forcing on them was to combine and form themselves into an association which would be empowered to guard and protect their interests in forcing grapes up to living prices.

The meeting being but the initiatory one of the movement, the proceedings were of a somewhat informal character. Colonel McGlinicy, a large fruit-grower near Campbells Station, and who was present by special invitation, addressed the meeting. His remarks were chiefly devoted to outlining a plan of organization and pointing out the best methods for acquiring the desired results. Part of the proposed scheme is to permit wine-makers who own their own vineyards to join the association and to suggest and encourage the organization of similar associations in other sections of Santa Clara county, as also in Napa and Sonoma.

Mr. Bozo Radovich spoke of the profits that should and could be derived from the wine industry under proper management. As proof that there was plenty of money in growing good grapes and making good wine, he cited the results of his shipments to London, England, adding that if care were taken to make a blend of wine suitable to the English palate, a large and profitable trade could be done with the wine merchants of London.

Captain Crossley, Mr. Sontheimer and others spoke, after which the chairman appointed the following committee on organization: Colonel McGlinicy, A. Malpas, Peter Ball, J. P. Bubb, Bozo Radovich, Captain Hawes.

The committee was instructed to formulate a plan of organization, and report the same at the next meeting, to be held at the same place next Thursday week, April 2d. Prior to that date the committee will meet Friday at the residence of Mr. J. P. Bubb and draw up the plan of organization. Captain Crossley was instructed to draft an address in the form of an invitation to the grape growers in other parts of this State to attend the next meeting,

and requesting their co-operation in the movement.

One thought suggests itself in connection with this movement; how do the grape-growers propose to reconcile their differences with the wine-makers, if the latter are allowed to become members of the association? The grape-growers have a good cause, but it is difficult to see how any results can be reached if they allow those whom they are combining against to join their camp. The line should be drawn at wine-makers who are owners of their own vineyards. These latter would be just as desirous to sustain the price of grapes as would grape-growers who do not own wineries.

A suggestion was made to have the grape-growers on the east side of Los Gatos organize so that the two associations could work in harmony.—Los Gatos News.

## Ramie Culture.

The interest in ramie culture seems to be increasing as the weeks go by. A special meeting of the Sacramento Grange was held at their hall on Saturday of last week, for the purpose of further considering the subject. The Sacramento Record, in noticing this meeting says:—

W. H. Murray, Secretary of the California Ramie Company, addressed the Grange at considerable length. He stated that his company would take pleasure in establishing a ramie-culture station at any place in Sacramento county that should be chosen. It should be remembered, he said, that fully 50 acres should be planted by the farmers to make it profitable to send a machine, engine and baling-press to the station. If, however, a less number of acres were planted, the stalks could be sent to some other station for working.

After Mr. Murray had concluded his remarks, the Grange appointed a committee, composed of the following named, to wait upon Governor Markham, and urge him to sign the bill to encourage ramie culture, recently passed by both houses of the Legislature: Erskine Greer, H. W. Johnson, C. E. Mack, Jr., Mrs. C. A. Hull and Mrs. G. T. Rich.

## The Governor Favors It.

This committee proceeded immediately after the adjournment of the meeting to the Governor's office, and succeeded in gaining an audience with the Executive. After a short consultation, the Governor said he felt convinced that the bill was a good one, and he intimated that he would in all probability sign it.

There is but little doubt now that ramie culture will progress rapidly in Sacramento county. Already a large number of prominent farmers—among them being ex-Senator William Johnston, Myron Smith, Charles Hull and Charles J. Jenkins—have signified their intention of engaging in the industry as soon as practicable. It promises to be a profitable industry both for the growers and the manufacturing interests. When the fiber is produced it should never be allowed to find its way to France. It has been suggested that with water power at Folsom, a factory could be built, and the fiber manufactured into threads that are very valuable—worth not less than \$1 per pound.

The Oakland cotton factory will probably make the first attempt at manufacture from this fiber. Grain bags for the farmer can be made of it in all probability, cheaper and far more durable than the imported material for their manufacture now being used at the Folsom State Prison. It will also enter into many other forms of cheap manufacture. The bill which has passed both branches of the California Legislature offers a premium of one cent a pound for the merchantable fiber, and also makes an appropriation to aid the farmer in purchasing ramie roots for replanting. Any further information in regard to the matter may be obtained by addressing Wm. H. Murray, Secretary of the California Ramie Company, 433 California St., San Francisco.

## Oregon State Horticultural Society.

The next quarterly meeting will be held in the Senate Chamber, State House, Salem, on Tuesday, April 14th, 1891. The following papers are announced: The Lessons of 1890.—R. D. Allen, Silverton. The Strawberry and its Culture.—E. Hofer, Salem. Pruning and Training the Peach.—M. Scheydecker, Fulton. Notes from Newberg.—C. E. Hoskins, Newberg. What I know about Drainage.—J. F. Beatty, Chemawa. What Shall the Harvest be from a Horticultural Standpoint.—Rev. A. Rogers, Forest Grove.

Other papers are promised, but not having titles we are obliged to make an apparently short program. It is hoped that a good attendance may be had at this meeting as business of considerable importance is to come up before the society for discussion; one important matter will be the adoption of a scheme for the exhibits and premiums thereon and the standing committees will be announced at this meeting.

E. R. LAKE, Sec. S. H. S.

Corvallis, Oregon.

## Arroyo Grande Notes.

EDITORS PRESS:—The season has been perfect so far; grain is looking fine, almonds, apricots and peaches are in full bloom. Strawberries will be plentiful in a few weeks.

Oranges and lemons of Arroyo Grande growth are hard to heat. The "Arroyo Grande Pride," a seedling lemon, has no equal that I've seen. Our olives, prunes, apricots and apples are first-class. We have taken more prizes for vegetables than any other locality in the United States.

D. F. NEWSOM.

[The lemons received with the above are very handsome. We will take time to test them and report results later.—EDS. PRESS]





### I Sat Alone With My Conscience.

Concerning the authorship of the following famous, deep-souled poem, (read March 14th, before San Jose Grange), a recent exchange writes: "As these verses appear in a volume of poems recently published by Chas. W. Stubbs, there can be little doubt that he is the author."

I sat alone with my conscience,  
In a place where time had ceased,  
And we talked of my former living  
In the land where the years increased.

And I felt I should have to answer  
The questions it put to me,  
And to face the answer and question  
Throughout an eternity.

The ghost of forgotten actions  
Came floating before my sight,  
And things that I thought were dead things  
Were alive with a terrible might.

And the vision of my past life  
Was an awful thing to face,  
Alone with my conscience sitting  
In that solemnly silent place.

And I thought of my former tremblings,  
Of the judgment day to be,  
But sitting alone with my conscience  
Seemed judgment enough for me.

And I wondered if there was a future  
To this land beyond the grave;  
But no one gave me an answer,  
And no one came to save.

Then I felt that the future was present,  
And the present would never go by,  
For it was but the thought of my past life  
Grown into eternity.

Then I woke from my timely dreaming,  
And the vision passed away,  
And I knew the far-away warning  
Was a warning of yesterday.

And I pray that I may not forget it  
In this land before the grave,  
That I may not cry in the future,  
And no one come to save.

So I sit alone with my conscience  
In the place where the years increase,  
And I try to remember the vision  
In the land where time will cease.

And I know of the future judgment,  
How dreadful so'er it be,  
That to sit alone with my conscience  
Will be judgment enough for me.

### The Queen of the Hearthstone.

[Written for the RURAL PRESS by KATHERINA BRYANT NOLAN.]

She rules the world, and yet she persists in considering her sphere a limited one. "The ills of life" come to one and all, rich and poor alike, and they are trials requiring all the coolness of a stoic if one would rise superior to them and grow old gracefully. No matter how often we rail at the Fate, they keep on spinning relentlessly and uniformly and the threads are out off with certainty and evenness at appropriate seasons.

The highest ideal of earthly bliss is the well-regulated old-fashioned family hearthstone, where the wife and mother reigns in seclusion and banishes discord with a firm yet kindly hand.

It may be difficult for the young wife to assert herself, and there will undoubtedly be many a one ready to criticize her noblest efforts and brightest aims. The beloved Charles or John or James may not understand her, but none of these disheartening occurrences should discourage any woman, as she has simply to go on in her quiet, gentle, unobtrusive style until she proves in an experimental way that she knows what she is about.

Charles and John and James are likely, practical, every-day sort of fellows and they go by experience rather than intuition, and consequently value the advice and ideas of experienced people. They see things from a logical standpoint and it takes a deal of time to toil up to the eminence which commands this broad view of life.

A good counselor is the friend who listens sympathetically and with understanding to all troubles and devises the methods of extrication; so woman with her quickness of perception and wit gets at the root of a matter directly and is well fitted by nature, generally speaking, for this important position. It requires courage and resolution to climb, when the logical mountain becomes a volcanic and dangerous top, and the masculine element is fond of hardening itself to platitudes. Many a wise counselor "preaches" too much and too often and wears herself out needlessly, but it is a self-sacrificing effort nevertheless, as women understand that success depends upon trifles and are ever on the watch for the turning-point which leads on to fortune.

The women of the middle and lower classes are too heavily burdened with cares and anxieties and should be chary of accepting untold

responsibilities, yet any outlook which suggests relief can certainly be contemplated, and this should be done without prejudice.

Many of the woes betrayed to a cold and unfeeling populace arise from trivial misunderstandings that roll and roll and gather force, even as a little snowball increases in strength and size as it rushes down the hillsides.

It is the fashion of the time to prate of the wonderful strides women have made toward complete liberty and emancipation, but in the discussions, some of the cold, hard facts, lie forgotten beneath the surface, like bladders, dangerous rocks in a rushing river. They are old-fashioned things but it will hardly do to lose sight of them entirely and some sort of a banner should be flung to the breeze, to indicate their reality. "Nothing succeeds like success," but the reefs must be avoided by an intrepid mariner or he will go down for all his bravery.

All the big boys and little boys, fat boys and lean boys, tall boys and short boys, are jolly good fellows generally speaking and appreciate fair play whether they demand it or not. If the "queen of the hearthstone" persists in believing that the unhappiness and misery of the world rests upon the broad shoulders of husbands, sons, and fathers, and quotes masculine arrogance, manly independence, and the selfishness of men in general, there is a cold question underneath, and the reminder is a blow aimed directly toward the feminine world, viz.: Who trains the boys from the nursery to the threshold of life?

The masculine heart is usually big enough to bear his troubles with an appearance of nonchalance, and he halls all assertions, denominating him a cold and callous youth, with exuberant joy, as it enables him to rightfully and lawfully enornat himself in that armor of the stoic, which is a relic of bygone ages. When he raises a war-ory it is a chivalrous one, lest some member of the fair sex wreck her canoe on an unseen boulder.

If women are to stand on a plane of equality they should not shirk the responsibilities simply because they are women, and they must shoulder a due share of the arrogance, pride and selfishness afloat or meet with contempt.

Bellamy has planned out the complete emancipation of women from domestic and even artistic drudgery, yet an imaginative mind shrinks from developing into an automaton and prefers to dwell under the ban of being non-progressive and of excoiting retrograde movements tending toward the further enslavement of women. There is not one bit of romance in the idea of walking under everybody's umbrella as one must, to become a true disciple of "Looking Backward," but some one body's umbrella is a fairy canopy when held by a ohlvalrous hand, even though a tempest be raging overhead and a torrent rushing underneath one's footsteps.

"The world was made when a man was born; He must taste of the joys of forbidden springs; He can never take warning from old-fashioned things."

Yet he clings to his traditions, and as Eve was given Adam to cherish and protect, he naturally dislikes to have what he considers the right of inheritance ruthlessly taken from him by modern innovations, especially when his eagle eye and poetic soul sees and feels the ruthless destruction of the quiet and happy domestic hearthstone that the poets have immortalized. Men have abused the sweet privileges granted them most shamefully in individual cases, and so have women, but in the main, man fulfills his arduous duties gracefully and woman moves in her sphere with all the energy and decision of a Roman matron.

The girl of the nineteenth century is a fortunate being, as there are many professions open to her in which she can carve out her own fortune. If she considers any of the details of domestic life beneath her, she should set her face against matrimony, gird on her armor, and go forth into the battle of life. She will be able to reach the lofty plane on which her brother stands if she eschews domestic cares, with considerable ease, and the man who now looks with scorn on the "pots and pans" may betake himself to their society with alacrity in order to earn his daily bread.

In short every woman should fill her sphere and be proud of her kingdom, and honestly desirous of advancing its interests after having chosen a vocation, if she wishes to accomplish great things, and to unlock the box which holds the wonders of our modern civilization in its mystical keeping. It is a woful mistake to become a "queen" without going into all the details of government, even to the best and easiest way of washing a blackened saucepan. The future of the nation depends upon the babies of the day and woe betide the baby who gets a draught from an unwashed bottle.

Money is powerful and waves a fairy wand in a wise hand and dispels the ills of life marvelously sometimes, but a warm heart sensitive to sorrow, must guide and counsel, else the gold is cold and sordid; the "queen of the hearthstone," who rules an impoverished kingdom cannot be governed by the love that actuates her rich contemporary.

A bright woman, ambitious for a career, can emancipate herself in a way that challenges Bellamy's airy structure, if she has the requisite courage to bew on her pathway.

"I'm going into the newspaper line, by way of variety," said one of these undaunted souls to a bachelor acquaintance once upon a time.

"You don't want to do that, it's man's work," he answered, impatiently.

"Can't help that. I've just got to do it. I

must be independent, my boy," she rejoined. The "boy" subsided and snubbed her, still he kept an eye out to see how she "got on." He observed that she "got on" with man's work very successfully, so he gradually thawed out, but he did not take back the insinuation of the impropriety of venturing beyond the confines of domestic life, and one day she observed that he was minus a button on his usually immaculate coat.

"You must let me sew that button on for you child. I will sew it good and strong with a ready hand and a steady hand," said the undaunted.

"I'll take the coat to the tailor. He'll sew the buttons on all right," the gentleman answered in a studious, docile, gratified way that spoke volumes.

"I was delighted," she wrote. "I would not take one hundred dollars for that speech. I think of copyrighting it. Wasn't it graceful of him?"

It seemed proof that men will encourage women when they have logically and experimentally demonstrated that they can avoid the dangerous rocks under the swift currents of the modern stream that floats the frail barks of our nineteenth century maidens.

Mankind is shrewd and sharp and skilled in warfare. He takes the "bull by the horns," and the maidens must stand shoulder to shoulder, keep the ranks closed up, define their duties sharply, and attend to methods both logical and illogical, if they would attain the best results in the shortest space of time, so say the oracles.

Many brilliant forerunners have been quenched under banne matrimonial, even gay and jaunty bachelors have been impressed into service and have laid down their freedom as a trophy to the "queen of the hearthstone," and possibly in order to prove that old-fashioned ways are good and seemly.

### Gum-Chewing.

[Written for the RURAL PRESS by MARIE.]

Not long ago I saw an article in one of our leading papers commenting on gum-chewing in America. It does seem such a pity to me that so many of our girls do themselves injustice by this vulgar practice, and I can but wonder how so many beautiful and otherwise well-bred girls indulge in this habit. I cannot think that they derive pleasure enough from it to rob themselves of the name of lady, and yet I would say for one that a girl who does it is not a lady, although I know many who would not agree with me, but I am not writing in a spirit of criticism, but only to defend my country and our dear girls from comment, as other countries must necessarily think the gum-chewing at least peculiar.

When I see a beautiful girl going down the street (I am sorry to say it) chewing her gum, I long to stop her and say, oh my dear, how can you spoil the effect of your graceful figure, your bright and happy winsome face and intelligent looks by that constant ungraceful motion of the jaws. Oh, mothers! teach your daughters better, and girls, scorn this habit if your mothers are careless.

### Small Fortunes for Flowers.

The most expensive dinner decoration I ever had charge of, says C. F. Klunder, the New York florist, in *The Ladies' Home Journal*, was on the occasion of a banquet given to General Cutting, at Dalmonico's. The whole outlay for flowers alone was \$3000. But even this does not approach the lavish extravagance of the Roman Emperor Nero, who gave a feast where \$100,000 was spent in roses alone!

For a dinner of twelve people, it is an ordinary thing to spend from \$50 to \$500 upon flowers. For a banquet, \$1000 to \$3000 is usually laid out. But these latter outlays are seldom made, because of the unfrequency of large dinners. \$150 is an expenditure of everyday occurrence. In the large cities, like New York, it is a common thing for wealthy people to spend from \$100 to \$500 a week in flowers, exclusively for home use. Where do they put all these flowers, you ask? You are wrong if you think there is a large quantity of flowers. Whenever I have been asked to decorate a house, or furnish flowers for daily use, I have selected quality rather than quantity.

Among wealthy people, the choicest flowers for the dinner-table are orchids. These flowers exhibit a remarkable variation; in fact, it is difficult in some species to find two flowers exactly alike in size and color. A boutonniere for the gentlemen should be made of a "Philanopsis," and about three "Catalpas" tied with a cluster of narrow ribbons to match, for the ladies. This is the most beautiful manner of table decoration, if well-arranged and properly carried out. But it is also the most expensive.

HIGH SCHOOLS.—The new law providing for the establishment of high schools is as follows:

Any city or incorporated town of 1500 or more inhabitants may, by majority of vote of the qualified electors thereof, establish and maintain a high school; or two or more adjoining school districts may unite and form a union high school district, for the purpose of establishing and maintaining a high school therein, at the expense of such city or incorporated town, or union high school district.

### From Darkness into Light.

[Written for the RURAL PRESS by C. HAIN.]

Out upon the dark world looking,  
I am longing for the light,  
I am longing for the sunshine,  
To give warmth and color bright.

Soon I know the dawn will glimmer  
In the far-off eastern sky,  
Soon the sun, in all his splendor,  
Will the gloom of night defy.

So my soul, though clothed in darkness,  
Mid the dreary night of sin,  
Will be brighter in the morning,  
When the light of heaven shines in.

Then will vanish all my sorrows;  
Wrapt in joy, I'll heavenward climb,  
Climb till in the arms of Jesus,  
I have found sweet rest divine.

Mulberry, Cal.

### The Pacific Coast Women's Press Association.

[Written for the RURAL PRESS by MAUDS S. PRASLER.]

Of the nine hundred writers on this coast, more than one-third are women. Feeling strongly the possibilities of an organization of these workers for mutual benefit and improvement, Mrs. E. T. Y. Parkhurst took the task upon her own brave shoulders. Aided by many noble-minded and public-spirited women, she issued a call for members, and then, with marvelous executive ability, placed the organization on a working basis. A constitution and by-laws were adopted that reflected much credit on the leading spirits of the movement.

The scope of the association includes much more than does any other Press Club in the United States. A list of the books written by the different Pacific Coast writers has been made and a library formed. The W. P. A. purpose to help educate the younger writers of the association and to extend practical help to all who may need it. The interests of the writers are looked after, the sale of their books and articles pushed, and good-will shown in every possible way to the members. The sick members would be shown every attention and the bonds of the organization strengthened. Much work has been planned for the future, and as soon as practicable a suitable club-house will be erected for the exclusive use of the association. The subject of international copyright will receive some attention as well as the matter of writing without compensation. All writers will be encouraged and stimulated to take more pains with their work and make it worth good paying rates. Efforts will be made to uphold the moral tone of the literary work done by members. An exhibit of the work done by the Pacific Coast writers will be prepared for the World's Fair in 1893.

The association holds regular monthly meetings at the residence of the corresponding secretary, Mrs. E. T. Y. Parkhurst, 1419 Taylor street, San Francisco. To her all letters regarding the movement may be directed. On each Monday afternoon the president and secretary may be found at the above address for the purpose of transacting business relating to the organization.

During the third week of March, the 16th, 17th and 18th, the first semi-annual convention of the W. P. A. was held in San Francisco, at Union-Square hall. Each morning the meetings were exclusively executive, and full reports of what had been done were read. Working plans were made for the next six months. Each afternoon and evening an open social meeting was held, and during the time a highly instructive and entertaining program was rendered, extending through the three days.

Much courtesy was shown the association, especially the visiting members. A luncheon was given the body on Tuesday by Mrs. J. W. Bruner of the Elmore, and on Wednesday the association was magnificently entertained by Adolph Sntro at his home on Sntro Heights.

Many thanks are due the press and the Southern Pacific Railroad Company for courtesies shown.

The convention closed on Wednesday evening with a banquet, to which a few outside friends were invited.

The association decided to accept the kind offer of Mr. E. S. Babcock, and hold their next semi-annual meeting at Hotel Coronado, in San Diego, next September. The Ladies' Annex of that city will also welcome the members of the convention, and much pleasure and profit are anticipated.

The good resulting from the personal contact of these brilliant minds cannot be easily estimated. The stimulus received by the enthusiasm shown on every hand, will leave its impress on the future work of each one present.

It is safe to assert that some of the members grew more in those three days than they had before in as many months.

The exchange of working methods, and of practical aids to writers will be given much attention in the future.

There are now more than one hundred and twenty-five members, scattered over the Pacific Slope from Central America to Alaska. It is expected the number will be doubled by next September.

THERE are two reasons why some people don't mind their own business. One is that they have't any mind, the other that they haven't any business.



## A Plea For the Ugly Girls.

It does not matter much to a boy whether he is good looking or the reverse. He is not obliged to wait for somebody to ask him to dance, and his matrimonial prospects don't appear to suffer any serious discount from personal shortages that would send a girl's stock away down below par, or even put her out of the market altogether. One never sees a man so hideous or repulsive but that some woman is ready to marry him, if he will only ask her; but men are less philanthropic, and so the ugly girls are generally left to rot to waste as unappropriated blessings. The "handsome is as handsome does" theory won't hold at all after we get out of the nursery, and a little experience soon convinces us that it is a fraud and a delusion, like that other domestic fiction, about the drumstick being the choicest part of the fowl, with which our elders used to impose upon the unsuspecting simplicity of our childhood.

We ugly girls never get any drives in the Park, nor free seats at the theatre; and as for ice-cream and French candy, no matter how handsomely we deposit ourselves, we shouldn't know the taste of either if we waited to have it bestowed upon us as a reward of merit. Indeed, the expensiveness of being an ugly girl is one of the worst things about it; there are no perquisites. We get none of the plums out of life's pudding, for under present conditions men do all the carving, and, as one of them says, "All the fine things we think and say about women apply to those only who are tolerably good-looking or graceful."

Now, suppose the same rule applied to men, and that only the good-looking ones could hope to attain to wealth and distinction; suppose, for instance, that that famous war on Oliver Cromwell's nose had been sufficient to condemn him to obscurity, as it inevitably would have done had he been a woman; suppose Grover Cleveland's too ample girth of waist had kept him out of the White House, as it certainly would have kept Mrs. Cleveland out had she been the unlucky possessor of that inconvenient superfluity; or suppose David B. Hill's bald pate had rendered him ineligible to the office of Governor of New York, as I have not the shadow of a doubt that a bald head would render any woman in America ineligible to the office of governor's wife; suppose, in fact, that a bald head was sufficient to blast any man's prospects in life as effectually as it would any woman's—I think most of the middle-aged men, at least, into whose hands this paper may fall, will admit that that would be a little hard. And, in fact, isn't it just a little hard that anybody's destiny in life should be made to depend irrevocably upon an accident over which they have no control, such as having been born with a red head or a pug nose? But this is the law under which women have lived since the beginning of time, and it doesn't give the ugly girls a fair chance. From an article by E. F. Andrews, in April Lippincott's

## Mothers as Match-Makers.

There is a kind of match-making which it is a mother's duty to attempt, writes Amelia E. Barr, in *The Ladies' Home Journal*. But it has strict limitations. It resolves itself into the simple duty of introducing to her daughter young men whose moral character is good, who are in a position to marry, and who, physically, are not likely to repel her. The young people may then safely be left to their own instincts. There should be no attempt to coerce; no moral force used to make even a suitable marriage; though extremities may lawfully be used to prevent an evil marriage. A mother's match-making really begins while her daughter's education is in progress. And it is one of the strangest of facts that mothers generally force this education in the direction of those qualities likely to amuse young men—music, dancing, singing, dressing, playing games, chaffing wittily, etc. Now, such attractions are likely to procure plenty of flirtation; but young men rarely marry the girls they flirt with. And why do not mothers consider, most of all, that approaching period in their daughters' lives when they will, or ought to, cease being made love to? Why should the preparation for young ladyhood absorb all the girl's education? How many curriculums contain any arrangement for education for wifehood or parenthood? Yet, what man wishes to pass his life with a woman whose only charm is the power to amuse him? He might as wisely dine every day upon candy sugar.

## Chaff.

THE detective has his "dog days" all the year round.

EVERYBODY seems to despise a hypocrite—God, man, and the devil.

TO the young maid marriage is a lottery, but to the old maid it is a grab-bag.

MARRYING rich widows, like drinking liquor, is often done solely for the "effects."

THE world owes every man a living, but it is a debt that he has to hustle to collect.

JACK—"A friend in need is a friend indeed." TOM—"Um—ye-es—if he doesn't need too much."

WIFE—"What do you suppose the baby is thinking about?" THE nurse—"I s'pose he's thinking what to cry about to-night."

## YOUNG FOLKS' COLUMN.

## Celia's Cross Time.

[Written for the RURAL PRESS by Mary E. Bamford.]

Celia was washing her face in an iron skillet. People always washed their faces in skillets. Nobody ever had such a thing as a tin wash basin at this time. The skillet she was using had three legs and a handle.

Celia had just got up this morning, and she was cross. She had been cross ever since the forenoon of the day before at school. The scholars had to knit or sew at school, and Celia was knitting a white wool stocking. She dropped a stitch, but she did not notice it until she had knit three or four rows more around. Then she saw the hole and she pressed the place down with her thumb. She hoped that the teacher would not notice the stitch. But all the scholars had to go up and show their work to the teacher before recess, and when Celia went Miss Healy saw the place in the stocking the first thing.

"Did you know you had dropped a stitch?" asked Miss Healy.

Celia hung her head. She did not dare to tell the teacher anything that was not true.

"Yes," she said.

So Celia had to go to her seat, and ravel out the rows she had knit, till she came back to the dropped stitch, and then she had to take up all the stitches on her needles and begin knitting again. And it was almost recess time. Every scholar who did not have her "stent" done by recess had to stay in.

Celia knit as fast as she could, but recess came before she had knit one row around the stocking, and instead of going out and playing with the other girls she had to stay in and knit and knit and knit all recess time. She was oh! so cross about it! And her being cross lasted all the afternoon and night, and this morning she was cross still. Cross times will last so long if you don't stop them right off!

Celia went into the kitchen. The big fireplace was there, with the crane hanging over the fire and all the long hooks and the short hooks hanging on the crane, and there was the kind of hook they called a trammel that could be drawn out or made shorter, whichever folks pleased, so as to hang the kettles nearer the fire or farther up from it. The crane could be swung back against the jamb of the chimney when folks pleased.

Celia's mother had made a johnny-cake for breakfast. There had been a good fire and she had put some of the coals on the hearth and baked the johnny-cake there. There were some roast potatoes for breakfast, too. Celia's mother had opened the hed of coals in the fireplace and had put the potatoes in there to roast. The mother had been up before the very first bit of light. She always worked hard all day.

The johnny-cake was as light as could be, and the potatoes were good, but Celia was oh so cross! She jerked her little sister so that she almost fell against the big wheel that was at one end of the room. There was a big wheel and a little wheel and some "swifts" that Celia's father made and a "spooler" and other things for making cloth. Part of the things Celia's father made, and such things as he could not make, as the wheels, a wheelwright made. The little sister cried and Celia did not care. Cross people are just so!

Celia's mother took a kettle and brought it to the fireplace. Celia looked quickly, for she hoped it was the beautiful little kettle that was smooth inside. Her mother always kept that kettle to fry cakes in or pies or whatever she wanted to fry. Celia hoped that her mother was going to fry something good to eat.

But it was altogether another kettle that her mother brought and set on the hearth. Then her mother brought a four-quart cake of tallow and put it in the kettle. Celia's father had bought the tallow of a man who had killed a cow. There were no stores anywhere around, so the father could not go to such places to buy tallow.

Celia's mother was going to make some candles out of the tallow. Everybody always had to make candles to burn at home, for no one had oil or gas. Celia's mother made candles every week or two. She had some candle-molds to run the tallow in after it was melted. Celia had to spin the tow-yarn for the wicks. Her mother had a stick to fasten the top of each wick to in the molds, and then she would point the other end of the wick, just as you do when you are going to thread a needle, and would run it through a hole in the other end of the mold and tie a little knot to keep the wick there till the candle was done.

But first, before the wick was put in at all, the mother would make a little blaze and would take the tow-yarn wick and run it through the blaze in a hurry, so as to singe off all the little hairs that stood out every way; for, if the little hairs were not singed off, they would spread all through the candle and it would spatter while it was burning and the tallow would keep dripping down every time a hair came.

Celia hated spinning the tow-yarn for the wick. She hated making candles, too.

"I thought you were going to fry cakes," she said; "I think you might!"

And then she was crosser than ever, so cross

that her mother was glad when Celia went to school. And there Celia made fun of a poor girl whose dress was almost worn out, and the poor girl cried. And Celia slapped Tommy Gordon and stuck her knitting needle in Bessie Gordon's hand, and quarreled with four boys that she knew, and said "Red-head! Red-head!" to a little girl named Maggie till she cried.

Celia's cross time just lasted and lasted! The reason was she didn't try to stop it.

When she came home there were the candle molds hanging outdoors by a string. Her mother always hung the candles outdoors to cool after making them.

There was a little girl with Celia, and they had been talking together very crossly, and the little girl said to Celia, "You don't dare jump up and catch on to that string that holds the candles!"

Celia was so cross she said, "I do too dare!" and she jumped and caught the string, and it broke and the candle molds tumbled down, and every one of the candles broke!

The other little girl was so scared she ran away, and Celia's mother told her she would have to go to bed in the dark for a whole week because she broke the candles. The other folks could use them, but Celia should not be allowed to, because she was so cross and broke the candles on purpose.

Celia sat down and cried and said "Oh! Oh! Oh! I have the worst time of anybody in this world!"

But she never thought how many other people she had made unhappy. Her mother and her little sister, and the poor girl and Tommy and Bessie, and the four boys and the red-headed girl. Ten people! Ten people that one little girl made sorry, when she might have made them happy instead! Cross people do make so many bad times for other folks! Oh, let's you and I never be cross any more!

## The Story of a Lost Cat.

[Written for the RURAL PRESS by Mrs. F. W. Welles.]

You must know it is a very sad thing to be a stray cat, especially in the city. I assure you it is and I speak from my own experience.

I was once a very fortunate cat. My coat was as soft as plush and I was quite fat enough for comfort. All day I lay near the stove or in mistress's lap, unless she herself placed me on the rug made for my especial use.

I think I must have grown thankful with so many comforts to enjoy, for one morning, when I found my mistress had given me milk a little sour in place of that fresh from the milk wagon, I made a very unpleasant noise about it and the first time I left the outside door open, I slid out and ran away.

For some time I ran along not daring to look up, for fear of seeing the angry face of cook, and when I did look about me I did not recognize the streets where so many busy people were hurrying along.

I own I was a little frightened when a coupe came near running over me, but I dodged to one side into a yard where I hid under a rose bush. Here, I could see without being plainly seen.

I had been here some little time, at least I had been asleep and had awakened feeling very hungry. I now wished I had the saucer of milk I left standing on the kitchen floor. I was still wondering which road would take me home, when two boys, with very ugly faces and wicked looking eyes caught sight of me. I know I must have trembled.

The agony that filled the next hour of my life I am sure would be hard even for an educated cat like me to tell. They tied ugly tin cans to my tail and put paper stockings on my feet. Later, they tied my feet together and laughed loudly at my efforts to walk. Surely I never had been so abused before and am thankful every day of my life that I belong to a well bred family where other amusements are furnished than the torture of a poor cat.

After I had been thus shamefully treated for some time, and was so hungry I could hardly walk, the boys ran away and once more left me to the shelter of the rose bush.

Here it was that a gentleman found me and placed me kindly under his arm and walked away. I have since been very sorry for a spiteful little dig I gave him with my nails, but I assure you it was before I knew how really kind he was and how well disposed toward all cat kind.

He stroked my fur and talked very gently—manly while he walked rapidly toward a good sized house with a hell on the front door. While he rang the bell and waited for some one to let him in, I read—for I am an educated cat and have often studied the printed page with my mistress's little son—"Home for stray pets," printed in big letters on the front door.

In a few moments I was in a large room where there were ever so many cats in cages and looking O, so hopeless.

Beyond this room was one for dogs, and but for a certain little pug, a prisoner there, I might never have written this story.

I was placed in a large cage, with ever so many other cats, all of whom had been brought there that day. A little striped kitten told me this and we were friends right away.

When I had finished the little scraps of food, that I am sure my mistress would never have been guilty of calling a meal, my friend, the pug, came slowly through a crack in the open door and commenced talking. If he had not

turned his watery goggle eyes full upon me, and seemed sadder than even his words expressed, I might have doubted him; as it was, every word he uttered went straight to my poor catfish heart. I could not keep back a bit of moisture from gathering in the corner of my right eye, though many a cat in my position might have been more dignified. He told me that no inmates of the "Home" live longer than three days, and if my mistress did not come for me by that time I would be put in a room where I would instantly fall asleep and never, never wake up. I was very glad when the keeper came and put this agonizing pug in his own room.

All that day I watched for some one to come and take me away. How many good resolutions I made and how often I made pledges of future good behavior.

I can scarcely tell how the night was passed but I awoke in the morning feeling the little gray kitten lick my face. Then and there I promised to do all in my power to rescue my humble friend.

After another painful visit from the pug, which so nearly distracted me that I was forced to m—e—o—w, the door opened and the keeper entered with a lady. How I jumped against the sides of the cage and mewed and purred with all my might, for this was my own mistress and little Charlie was with her.

Soon she saw me and I was taken out and once more felt the loving embrace of my mistress's arms. While I was still curling myself about and trying to make my mistress know how very glad I was to see her, she said, "why then's Debby's little gray kitten, I will take her." Debby is a little girl who lives next door.

It is needless to say that since my experience, I have been a very well behaved cat and eat my food without complaint, but often I sit in the back yard and talk over my experience with the gray kitten and we both agree to be very good natured cats and stay about our own homes.

"Good gracious, Tommy, where have you been?" "I fell into the pond, papa." "And with your nice new trousers on." Well papa, I hadn't time to take them off before I fell in."

## DOMESTIC ECONOMY

APPLE FILLING.—Two grated apples, one egg, one lemon (rind and juice), one cupful of sugar; scald all together; when cool put between the cakes, and cover the top with whipped cream flavored with lemon and slightly sweetened.

OATMEAL CRISPS.—One cup oatmeal, nearly one-half teaspoonful salt, mixed together dry, cover with cold water and let it stand half an hour. Drain off any water remaining; drop by spoonfuls on a tin, spreading as thick as possible. Bake until brown and crisp, but not scorched in the least.

PORTLAND PUDDING.—One cupful of beef suet (chopped fine), one-half of a cupful of sugar, one-half cupful of molasses, one cupful of sour milk, one cupful of chopped raisins, three cupfuls of flour, one teaspoonful of saleratus, one egg, nutmeg and cloves; steam in a well greased two-quart basin two hours.

FRIED OYSTERS.—Wash the oysters, drain, sprinkle with salt and pepper, and let them stand twenty minutes. Roll first in seasoned crumbs, and then dip in beaten egg mixed with one tablespoonful of milk, roll in crumbs again and fry one minute in smoking hot lard. Drain on paper and garnish with sliced pickle.

ALMOND TAFFY.—This is the latest "sweet." Boil together half a pint of water and a pound of brown sugar for ten minutes; blanch and slice through the middle 1½ ounces of almonds; stir them in the syrup with two ounces of butter; let it boil hard for ten minutes; pour on a well-buttered dish to the thickness of half an inch.

LONG BAKED INDIAN PUDDING.—Stir into a pint of cold milk seven even tablespoonfuls of Indian meal. Add a teaspoon of molasses, a half-teaspoonful of salt and a large tablespoonful of butter. Pour another pint of milk scalding hot over the other ingredients and stir it well. Put the pudding into a thick, earthen pudding dish; the old-fashioned yellow ware seems the most appropriate to serve it in. It should be begun early in the morning in order to be served at three o'clock dinner. After it has baked for one hour, stir in another pint of cold milk and the same in another two hours. This makes a jelly like pudding.

DETECTING OLIVE OIL, BUTTER AND OLEO-MARGARINE.—The reagent employed is a solution of silver nitrate at 25 per 1000 in ethylic alcohol at 95°. About 12 c.c. of the oil in question and 5 c.c. of the reagent are placed in a test tube. The tube is then set in a beaker of boiling water, and the changes of color which take place in the liquids are watched through the glass. Unless the oils are perfectly limpid, they must be previously filtered. Olive oils sooner or later take a fine green color, which is lighter in the superior qualities. Pure cottonseed oil is turned completely black. Oil of earth nuts (*Arachis*) takes first a red-brown color and finally turns green, losing its transparency. Oil of sesame takes a deep red color and remains reddish. Oil of colza takes yellowish-green colors and becomes turbid. Natural butter preserves its natural color. Oleo-margarine becomes a brick red, which color may be detected even in samples containing as little as five per cent of margarine—*Raoul Brulle*.





A. T. DEWEY.

W. B. EWER.

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SAN FRANCISCO:

Saturday, April 4, 1891.

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[NEW THIS ISSUE.]

Combined Harvesters and Traction Engines—Benicia Agricultural Works, Benicia.  
Mowers—Deere Implement Company.  
Windmills—R. B. Sin Clair, Alameda.  
Mowers, Rakes, Etc.—H. C. Shaw, Plow Works, Stockton.  
Drapers, Etc.—White, Cooley & Cutts, Marysville.  
Fabiola Hospital—S. J. Fenton, Oakland.  
The Pacific Hospital—Dr. Asa Clark, Stockton.  
Agricultural Implements—Higginson Mfg. Corporation, Higginson, Conn.  
Water Lilies—Edmund D. Sturtevant, Los Angeles.  
Power Pump—R. M. Beebe, Gridley.  
Sorghum Machinery—James Linforth.  
Thrashing Outfit for Sale—Mrs. Annie Hook.  
Seeds, Bulbs, Etc.—Mrs. Theodosia B. Shepherd, Ventura.  
Shorthorn Bulls—R. Ashburner, Baden Station.  
Sheep—Frank Bullard, Woodland.

See Advertising Columns.

## The Week.

The beautiful weather continues, and all reports from the country are of fine growth of seed and cereal crops. The wild-flowers are coming along rather late, but in full form and color, and are spreading beauty everywhere. There has been, however, a continuance of cool, drying winds, and apprehension—or at least strong desire for rain before long—is widely expressed. We certainly need a good supplement to the winter's rains in order to bring crops through in good shape.

At the south there is unparalleled activity in

the orange trade, and special trains are going forward not singly but in groups. Prices of oranges have sharply advanced, and much money will flow into the orange regions as the result of present activity.

By the omission of decimal points in the table in the census report on the grape interest in last week's *RURAL*, the yield of grapes per acre was lifted clear beyond even the most exuberant real estate agent's limits. Inserting the decimals, and the rate per acre for California becomes ridiculously low. We shall refer to the matter at another time.

## New Laws Affecting Agricultural Interests.

Since the adjournment of the Legislature, Gov. Markham has applied himself assiduously to the consideration of the bills sent to him from the law-makers, and has affixed his signature to many of them. Some of those affecting agricultural interests have been fully set forth in our columns, and others will appear later as we can obtain authenticated copies of those of wide application. At this time we select from the lists of those approved by the Governor, those which have special reference to our constituency.

The semi-annual payment of taxes is now provided for by law. The taxes on all personal property and one-half the taxes on all real property are payable ten days after the second Monday in October, and will be delinquent on the last Monday in November. The remaining one-half of the taxes on real property is payable after the first Monday in January, and becomes delinquent on the last Monday in April. All the taxes can be paid when the first installment is due.

A group of laws applies to drainage, reclamation and irrigation. Amending the Drainage Act and directing the Board of Commissioners to meet as a Board of Equalization. Amending the Irrigation Act in the matter of the omission of assessments and public notices, also providing that no informality shall invalidate election of officers or issue of bonds. Relating to the collection of assessments made in reclamation districts. Defining the powers and duties of Boards of Trustees in reclamation districts. Providing for the correction of errors or mistakes in the assessment of swamp-land districts. To determine that lands in this State are swamp and overflowed when returned as such by the United States Surveyor-General.

Horticulture receives most attention of any of the branches of agriculture, and laws now exist amending the Acts to protect and promote the horticultural interests of the State; authorizing Boards of Supervisors to appoint either one or two members of the Examining Commissioners under the Horticultural Board; appropriating \$5000 for the purpose of sending an expert to Australia, New Zealand and adjacent countries, to collect and import into this State parasites and predaceous insects. The law for the protection of olive oil appears elsewhere in this issue.

In addition to these enactments, the Legislature provided for the continued support of the commissions dealing with horticulture, viticulture and forestry, and provided for the culture of ramie, as has already been noted in the *RURAL*.

The stock farmer has thus far secured the enactment of a law fixing a bounty on coyote scalps; also creating a lien in favor of owners of hells, jacks, stallions, etc., need for breeding purposes. The hop grower will have a law fixing the amount of tare on a bale of hops.

Laws affecting the general interests of the State include one making it illegal to advertise for obtaining divorces, and making train-wrecking punishable by death. There is also to be a board of arbitrators to arrange differences between employers and employees.

Another measure which should be held steadily in mind provides that at the next general election the people shall vote whether or not the United States Senators shall be elected by popular vote instead of by the Legislature. Recent experience in this State and in other States argues strongly that the present method is wrong in theory and outrageous in practice.

The Governor is still engaged in the consideration of bills, though his ten days from the adjournment of the Legislature is drawing to a close. We shall give later whatever may appear in the agricultural line.

## Grain Bags at the Prison.

One of the last official acts of Mr. John McComh, before retiring from the wardenship of the State Prison, was to issue the following notice to leading dealers in grain bags:

Please notify other intending purchasers that our stock of bags is exhausted, and further orders cannot be accepted until the State Board of Prison Directors decide whether to accept orders for bags not yet manufactured, the delivery of which cannot be guaranteed positively, and even if they should decide to do so, we have applications on hand to cover about all the bags we can manufacture during the season.

The above indicates that the supply of State Prison bags went into distribution at an early date, which gives the impression that the bags give satisfaction. The manufacture of grain bags at San Quentin penitentiary has contributed not a little in breaking the bag ring that so unmercifully controlled the price of bags in years past. Probably no one thing is watched with more interest at this season of the year, by our leading grain-growers, than the grain-bag market, and nothing appears to be left undone by them, through their organizations, to keep a ring from forming a corner to unduly advance the market price. This feeling is clearly set forth at the last meeting of the State Board of Prison Directors, when, as reported by the *San Francisco Call*:

J. D. Huffman, W. L. Overhiser and C. H. Wakefield, a delegation from the Pomona Grange of San Joaquin county, addressed the board at length, asking, in view of the tariff reduction on raw jute, a reduction in the price of sacks, which are now sold to farmers at 6½ cents each. Upon being informed that the jute now on hand had been purchased under former high tariff regulations, the request was withdrawn.

The attention of the board was next drawn by the delegates to the imperfect sewing of the jute bags, and the fact stated that merchants order sacks through farmers, securing the benefit of farmers' rates, and then retail them at regular market prices. As a remedy for this abuse of the board's rates to agriculturists, the delegates suggested that all orders for prison sacks should be accompanied by an affidavit stating that the sacks are for use by the purchaser on his own land.

It is well for producers to keep close watch of the proceedings of the prison directors in the matter of bag manufactures, and those who come forward to insist that the output be furnished to actual producers at the lowest possible rates are entitled to the thanks of the agricultural public.

STANFORD UNIVERSITY.—The public will be interested to learn that preparations for the opening of this institution are progressing. After due deliberation, Senator Stanford has selected for president of the University, Dr. David Jordan, who has been for the last seven years president of the Indiana State University. Dr. Jordan is comparatively a young man, as he is but forty years of age. He graduated from Cornell University in 1872, and has reached high position by his studies in natural science, chiefly in his specialty, ichthyology. He spent some months on this coast in studies of our fishes and fisheries about ten years ago, and made many acquaintances both among our citizens and among our finny tribes, for he added many new species to science during his stay on this coast. Dr. Jordan has an excellent reputation for organizing and executive ability, and these talents will be invaluable in the work before him. He will be warmly welcomed as a permanent resident of this State.

RAIN RECORDS in various parts of the State show not only great variations in different and distant localities, but also important variations in quite near localities and under the same topographical conditions. Even different portions of a large field, without any marked differences of elevation show quite a difference in rainfall. This is accounted for from the fact that the rain does not fall equally from all parts of a cloud. The condensation proceeds diversely in different parts. Rain gauges under different portions of the same cloud would record variously. The edge of the cloud might pass over one instrument, while the center would pass over another. Then again, rain falls from different heights, under which conditions there would naturally be varied amounts of condensation.

WITHOUT NAME.—We have received a letter from a gentleman who mentions himself as clerk of a school district in San Diego county, but we cannot reply, as the writer forgot to sign his name to the letter.

## Exports of Live Stock.

Those who are interested in the export trade of American live cattle will doubtless be glad to know that among the laws enacted during the closing days of the Fifty-first Congress was one by which the Secretary of Agriculture, through his inspectors at the ports of export, is authorized to examine all vessels which are to carry the cattle to foreign countries and to prescribe rules and regulations as to accommodations to be provided for the cattle as to space, ventilation, fittings, food and water supply, and such other requirements as he may deem necessary for the safe and proper transportation and humane treatment of such animals. The violation on any vessel of the regulations made by him may be punished by the prohibition of such vessel from again carrying cattle from any port in the United States for such length of time not exceeding one year as the Secretary of Agriculture may direct.

Secretary Rusk feels confident that, armed with such authority, he can secure to American export cattle such necessary care and humane treatment as will not only conduce greatly to the profit of the shippers but also effectually offset the agitation aroused and maintained in Great Britain by the opponents of the American export cattle trade on the ground of the inhuman treatment of the cattle.

## Agricultural Statistics.

The Statistician of the Department of Agriculture has prepared a new series of statistical illustrations, called an Album of Agricultural Graphics. It relates to values per acre, on the basis of values of products in the hands of the farmer. To eliminate annual fluctuations and obviate the unfair showing of a single year of extremes of yield or value, the average of ten years is taken, making the most equitable possible basis of comparison.

In the plan of illustration the main idea, that of value per acre, is presented geographically, the differentiation being shown both by the density of color and distinct peculiarity of mechanical drawing, by groups of States, while the differences within these groups are seen in the table of State averages on the margin. As a prominent element of value per acre, the yield per acre is conspicuously indicated on the field of each State, as well as in the marginal table.

The crops which are the subjects of this graphic illustration are corn, wheat, oats, rye, barley, huckwheat, potatoes, tobacco, cotton and hay. The album is especially intended for reference and study in Farmers' Institutes, colleges, schools and public libraries.

SNOW WORMS.—We alluded in a recent issue to the appearance of what were called "snow worms" in Randolph county, West Virginia. The crest of the snow was covered with them. The *Scientific American* wrote to Prof. Riley, the agricultural entomologist at Washington, for an explanation of the phenomena, who replied as follows: "You send two distinct larvae. The small species, of which there were 8 to 10 specimens, is the common Pennsylvania soldier-beetle (*Chauliognathus pennsylvanicus*), a carnivorous species which in the larva state destroys plant lice, bark lice and the eggs and young larva of a number of injurious insects. This insect hibernates in the larva state and has occasionally been observed, both in Europe and in this country, fairly swarming upon the surface of snow, having been driven from its hibernating quarters by some peculiar weather combination. It hibernates at the roots of grasses, under stones and logs, and under the loose bark of stumps, logs, and old trees. The other and larger larva, of which there was only one specimen in the box, seems to be a variety of the bronzy cutworm (*Nephelodes violans*), an insect which also hibernates in the larva state, and has also been observed occurring in large numbers on snow."

FOUR LEGS AND FOUR WINGS.—Mrs. Joseph Townsend, No. 2324 Folsom St., San Francisco, has a Black Spanish chicken hatched March 12th, with four perfectly developed legs and wings. It peeps, runs about, eats and grows like ordinary chickens, and bids fair to be a most extraordinary and valuable curiosity. It is seldom we see a case of *lusus naturæ* with extra parts so completely formed, and the creature's natural operations so effective.

FOREIGN GRAPE VARIETIES.—The articles on imported grapes and olives, on page 311 of this issue, should have borne Prof. Hilgard's signature and been credited as a part of one of the university bulletins. The varieties described were imported by the university for trial at the experiment stations.



## THE BOTANIST.

## A New Food Product.

[Written for the RURAL PRESS by DR. LORENZO G. YATES, F. L. S.]

The Chocho Plant [*Sechium edule*].—This plant, which has been introduced into cultivation in Florida, where it is growing in favor, and is, perhaps, better known there than elsewhere in the United States, is being tested in Santa Barbara county by Mr. Kinton Stevens of Montecito, who obtained the seed from Samoa, and has one very thrifty vine that promises a large yield of the curious squash-like fruits. *Sechium edule* is the botanical name of this plant, but it is perhaps better known as "Chocho," "Chocho," "Chayota," and "Portuguese Squash." It belongs to the order Oncharitaceae, and is a perennial vine, resembling in growth and fruit our summer squash or vegetable marrow. It is a very prolific bearer. Both the fruit and the great yam-like tuber are used as food by man and beast in the West Indies, where it is considered a wholesome article of diet. The roots often weigh as much as 20 pounds. They have a flavor similar to the yam, and are considered a greater delicacy than the fruit which in a raw state resembles the chestnut in flavor, and under favorable conditions weigh over three pounds.

A few of these plants, which in our dry seasons could be easily supplied with water, would furnish a family with an abundant supply of food, and such valuable food plants should be cultivated all over the State, as is being done by the Government in India as a provision against famine in dry seasons and failure of other crops.

Although a native of Tropical America, judging from the plant I saw, it does not seem to be particularly as to soil nor require special care.

One peculiarity is that the fruits sprout while growing on the parent plant. The proper way to grow them is to plant the whole fruit, as they have but one seed, and they produce fruit in three months under favorable conditions.

In an illustrated report of the Botanic Gardens of Bangalore, India, there is a figure of the fruit of this plant, but it does not show the sprouting of the fruit, which is shown in the accompanying illustration made from the plant grown near Santa Barbara, nor is this peculiarity mentioned in any publications which have come to my notice; whether this is its normal habit or is due to climatic conditions, I am unable to state. It may arise from the fruits being left too long on the vine; it would probably be advisable to pick them before they sprout.

Santa Barbara, Cal.

[Our engraving is made from an excellent sketch of the fruit and vine made by Dr. Yates. Eds. Press.]

## Blossom Time.

EDITORS PRESS:—Under date of March 2d, Bert Hickok of Capay Valley sends Baby Eyes and Spring Beauty (*Calandrinia Menziesii*) and California lettuce (*Claytonia perfoliata*).

March 7th, "Cholone peaks," Monterey county, sends *Gilia diobotoma* (Satin star flower) and several blue-flowered *Gilias*, a small-flowered *Nemophila*, the woolly, thistle-leaved sage (*Salvia* var) and two other species of the mint family. *Mulla maritima* (a white-flowered plant of the lily family) was found by the roadside near Soledad. *Hosackia strigosa*, a little yellow-flowered, pea-like plant, *Orthocarpus densiflorus* (Soldier Plumes or Pompons) and the tany-leaved *Phacelia* were found in the same vicinity. Near Gonzales a beautiful form of *Madia elegans* was very abundant, and an erect form of the pretty blue-flowered *Phacelia ramosissima* var *hispida* (the Rough-haired Phacelia). In the hills near Pajaro, *Trillium sessile* (the Wood Lily or Wake Robin), *Anagallis arvensis* (the pimpernel), *Nuttallia cerasiformis* (see berry or bear berry) and a pretty wild pea (*vicia* Cal.) were plentiful, and a lot of white-flowered Spring Beauties made a pretty contrast with their brilliant red flowered sisters.

"B. F. L." in your issue of the 14th, touches on the true cause why so few people are able to keep their Dutch bulbs over from year to year. After bulbs have blossomed, they need a period of rest which they cannot get if the ground is kept moist by irrigation. I would suggest that "B. F. L." favor the readers of the PRESS with items in the line of plants suited to plant with bulbs.

A. L. LIANCE.

## One Week Later.

EDITORS PRESS:—March 15th, several species of *Gilia*, particularly *Gilia micrantha* and *G. densiflora*, were very plentiful near the Cholone Peaks, Monterey county. A pretty yellow *Mentzelia* was also abundant, and *Ellisia membranacea*, several *Phacelia*s sages, and other species of the mint family were very plentiful. *Solanum nigrum* (commonly called Black Nightshade) was noted. Manzanitas were blooming sparsely in the hills east of Pajaro valley on the 10th and were open generally by the 20th.

On the 28th, from the same section, came *Stachys bullata*, *Fritillaria parviflora*, *biflora*,

*liliacea* and *lanceolata gracilis*. These plants, though frequently found doing well in shady places, bloom very well even on the tops of sandy hills where there is an underlying stratum of heavy soil. *F. lanceolata* growing in loose sand rock. *Calochortus Benthami* and *cerulea* were seen in blossom here.

From the hills west of Petaluma come *Nemophila insignis* and *Menziesii*, *Fritillaria lanceolata*, *Zygadenus*, a *Sanicle*, and several others too incomplete for identification.

From the foothills of Marinosa county, March 20th, come *Nemophila insignis* (Baby Eyes) and a fine form of *N. maculata*, *Brodiea capitata*, some hutchings, a white forget-me-not, *Dodecatheon media*, two colors (Shooting

## ENTOMOLOGICAL.

## Pests of the Apple and Pear.

[Read by H. A. Brainard before California State Horticultural Society.]

The apple and pear crop of this State is now recognized as of increasing importance every season, and yet it is no more than five years ago that every apple tree seemed doomed to be uprooted in consequence of the destruction of fruit by codlin moth.

In 1885 or 1886 the writer caused experiments to be made with Paris green and London

appearance—I do not now remember the exact quantity of flour used—and to this water add one pound of Paris green to every 200 gallons, first mixing the Paris green into a thick mud with a little water, when it will dilute and mix easily, and will be retained in suspension much better than in pure water. From several observations made last year, this method seemed to give better results than when the Paris green was dissolved in ammonia. The spraying should be done for the first time when the petals have pretty nearly all fallen from the blossoms. In the case of pears, the time of blossoming varies so much, that in an orchard of several sorts, many of them will require separate spraying. Apples are more uniform, and the whole orchard can generally be done at the same time.

For very early fruit this one spraying will generally do very well, but for later fruit it will be necessary to repeat the operation two or three times; the last time well into the month of July. The danger from poisoning is almost nothing, no case ever coming to our knowledge of any injurious results. Mixed no stronger than one pound to 200 gallons, there is seldom any material injury to foliage. We have seen it used as strong as one pound to 50 gallons without injury, but there is always danger of burning the leaves when mixtures stronger than one pound to 160 gallons are used. Mr. Block of Santa Clara, who follows this method substantially, assures me he seldom has a greater loss than five per cent from codlin moth.

The efficacy of the older methods, bands, traps and lights used in connection with vessels of sweetened water is so small that they may be neglected without material loss, though some will be caught under the bands and traps.

## Spraying for Fungus.

Another serious trouble with the apples and pears is the black scab (*Faricladum dentriticum*), which attacks and ruins the fruit not only in its early growth, but sometimes seems to attack the fruit when near maturity, and it may be gathered and boxed as pretty nearly perfect fruit; but when opened a few weeks later the scab has been found developed to such an extent as to destroy the value of the fruit. Dry sulphur alone applied as to the grape has some effect, and sulphur and ashes a still greater effect, but the best form in which to apply sulphur seems to be made up in solution with some alkali. Sulphur may be boiled up with caustic soda and applied. We have used the sulphuret of potassium made in St. Louis at the rate of one pound to 35 gallons of water, and applied just as the fruit is beginning to form. Have mixed Paris green in this solution and treated codlin moth and fungus at one operation. The I. X. L. compound, which is made principally of sulphur and lime, will also destroy this fungus, and the manufacturers claim it will also prevent any injury by codlin moth. I have never experimented with it for that purpose, but shall do so this season.

Copper solutions are very effective against all kinds of fungus and particularly so against this black scab. The most simple of these is made with six ounces of carbonate of copper dissolved in a quart of ammonia, and then diluted with 25 gallons of water. If the carbonate of copper is not readily obtainable, take one pound of sulphate of copper, common bluestone, and dissolve in two gallons hot water, and into this pour two pounds of carbonate of soda; this will dissolve in 1½ pints of ammonia, and may then be diluted to 22 gallons. We have tried it for mildew and scab made up with 50 per cent more water, and found that it did the work. Probably if this mixture could be applied to the trees before the buds start, the spores of the fungus would be nearly all killed and the scab prevented. Here in California when the scab is not very bad, one application is generally enough, but if it comes on late in the season it must be repeated. We once knew an orchard where the crop of pears was destroyed for several years in succession by the black scab. At our suggestion it was treated with sulphuret of potassium as before described and the crop sold for \$300 per acre that year.

## Summer Spraying for Scale.

For the San Jose scale, when it appears on small trees and the twice stabbed Ladybird has not yet put in an appearance, spraying twice during summer with kerosene emulsion carefully made and applied, the first time very soon after the scale begins to hatch and again about October, has been very successful. For old trees covered with moss, we would first use some strong winter spray to clean the trees, and if the scale shows any after that, use the summer spray. For the brown apricot scale one good thorough spraying in summer as soon as the scale is all hatched out, generally toward the last of June, but varying with the locality, will generally eradicate them. If this is followed by another spraying in September, October or November, the destruction will be pretty complete. A very weak kerosene emulsion will kill the scale when just hatched out, and the strength should be increased later on. The olive scale, which sometimes also infests prune trees, does not seem to hatch all at once, as does the brown apricot scale, and no one spraying will clear this out. The twice-stabbed ladybird seems to make better headway against the olive scale than against the brown apricot scale, and under favorable circumstances will destroy them both; but my experience has been that they cannot be relied on in every case. A rosin soap wash,



THE CHOCO OR CHAYOTA AS GROWN IN SANTA BARBARA.

Star), Gold ferns, two *Calandrineas*, *Platystigma Cal.*, *Orthocarpus luteus*.

I expected to add some notes on a thermal belt on the east side of Salinas valley, similar to that on the west side, but the heavy frosts of the past three mornings (28th, 29th, 30th of March) caused me to wait till I see their effects.

A. L. LIANCE.

Box 90, Gonzales, Monterey Co., Cal.

It has been found, says the *Evening Post*, by careful experiments on plants grown in a confined atmosphere that they abstracted nitrogen from the air around them to the extent of 30 cubic centimeters.

THE MYSTERIES OF NATURE.—The telescope enables us to gaze through the boundaries of the stellar universe; the microscope enables us to look through the stratum of living forms and see the expanse of unappropriated mineral elements. Life even in its minutest forms is superimposed on matter. Strange life! The animalcule a million times smaller than the finest point that can be broken from a cambric needle manifests instincts as remarkable as are observed in higher animals. \* \* \* No words can describe, no pencil paint the wonders revealed in a single drop of stagnant water,

purple. A little block of trees divided by an avenue was sprayed on one side of the avenue and the other side left untreated. The result was an almost perfect crop of fruit on the sprayed side and an almost total destruction on the side left unsprayed. The same result in varying degrees of success resulted from the other experiments.

As soon as the results were known, we set out by publication and personal visit to save many apple trees that had been marked for removal. We saved many thousand trees. One fine orchard, small it is true but of trees 16 years old, we induced the owner to spare, though he stood with ax in hand ready to begin the work of destruction. That year there was only one box of good fruit to 150 boxes of wormy fruit. It was treated the next year and the wormy fruit was only one box in fifty. The only really reliable way of operating against codlin moth seems to be to spray with Paris green. We formerly preferred London purple, for the reason that it remained more perfectly suspended in water, but of late the London purple is so variable and unreliable in its composition that we now greatly prefer Paris green.

The best results have come from mixing flour paste with the water to make it quite milky in



made either with tallow or fish oil (we have used tallow, and with so good success that we believe in it), can be also used in summer; it does not hurt apricots or prunes when sprayed directly on the fruit. The I. X. L. compound can also be safely used in summer, and does not hurt either apricots or prunes.

For all sorts of leaf-eating worms, Paris green may be used the same as for codlin moth. It does not always act as promptly as one could wish, and in the case of canker worms, they will sometimes eat considerable before they die, but it is generally efficacious.

An orchardist who watches carefully his trees and is ready with his spray-pump to attend to a single tree even, if anything is observed upon it, will succeed with the mild summer washes in keeping his orchard clean and will never require the wholesale winter operations. A word on the subject of parasites may not be out of place. The idea is being taken up with many, to abandon spraying and leave the work to the parasites. Before adopting this plan it is well to consider that the parasites do not usually exist till the injurious insects have become so plentiful as to cause great injury, and that with orchards perfectly clean there will be no parasites. Orchards badly infested will also breed the parasites most rapidly and will sometimes be cleaned up by them more quickly than orchards comparatively clean, and from this the orchardist may jump at a very unwise conclusion that he who sprays has "more bugs" than he who entirely neglects it. For holding the insects in check and keeping orchards constantly clean, there is no better plan than watchfulness and prompt summer spraying.

## AGRICULTURAL NOTES.

### CALIFORNIA.

#### Butte.

**MAGNIFICENT ORCHARD AT PALERMO.**—*Register*, March 26: One of the largest and finest young orchards in California is that at Palermo, owned by the Hearst estate and Mr. B. R. Taylor. The tract of land embraces 760 acres and it is intended to put every acre of this under cultivation. Up to the present about 690 acres have been planted as follows: Ten acres of summer apples, 15 acres of lemons, 30 acres of Tragedy prunes, 60 acres of French prunes, 60 acres of apricots, 60 acres of grapes, 60 acres of peaches, 90 acres of pears and 240 of oranges, with enough other fruits to make up the total of 690. Of this acreage 15 are planted to a mixed household orchard, which includes all varieties of fruit. There are 22 acres devoted to alfalfa. It was intended to put all the land under cultivation this winter, but owing to the season having been dry during a part of January and February the soil could not be worked, and now it is too late to plant deciduous fruits. About 20 acres of olives will be set this spring, and next winter 70 more acres will be devoted to the same fruit. We think that the 240 acres of oranges constitutes the largest orange orchard in California, and if we are wrong we hope some of the Southern California papers will correct us in this particular.

**FORAGE PLANTS.**—*Oroville Register*, March 26: M. V. Rowe of Nimeshew has grown two crops of alfalfa without irrigation. He says that if he desires to raise a third crop the same season he has to irrigate his land. Two crops of this fine grass on land that can be bought for \$15 or \$20 an acre ought to satisfy most any one. Mr. Rowe tells us there are thousands of acres now covered with timber that can be bought all the way from \$10 to \$15 an acre that would grow two crops of this grass without any water. He has been experimenting with a number of the foreign grasses and finds that the Australian rye grass starts with the first rains in the fall and grows all winter, giving fine pasturage for stock. He has been testing the Bulletin forage plant and finds that it succeeds well. He planted it in April and it remained green up to Christmas. When it comes up it looks like Egyptian corn, but gives fully three times as much fodder as this corn, and he thinks that it will be quite valuable for stock.

**LARGE ORANGE GROVE IN BUTTE COUNTY.**—*Oroville Mercury*, March 26: Steadily the community forges ahead. Colonel Frank McLaughlin intends to set 100 acres to oranges to Thermalito, on a beautiful tract, east of the olive grove owned by himself and Mr. Fogg, and right at the entrance to the grade leading to the bridge crossing the river. The Colonel intends to make his grove one of the finest in the State. Grubbing and surveying has been already commenced.

#### Contra Costa.

**THOROUGHBRED CATTLE IN CONTRA COSTA.**—*Antioch Ledger*, March 28: J. H. Schneider, one of the proprietors of the Hyde Stock Farm, was in Merced county, last week, looking for thoroughbred cattle. As a result of his visit, three carloads of thoroughbred Durham bulls and heifers arrived at Cornwall station, one day this week.

#### Fresno.

**VINE AND TREE PLANTING.**—*Editors Press*: The John Brown Colony of Madera have put out a large acreage of vines and fruit trees. They have set out over 2700 acres this season; their large nursery of Muscat outtings have been all put out. This immense nursery of outtings contains 82 acres and is all set to this one variety. These outtings were put out in 173 days

with or by the use of a machine invented by their nurseryman. The number of outtings put out in this nursery was 2,500,000. Their 1920 acres of vines set last year made a fine growth last summer. Owing to the working of this colony new life has been given to this community. New houses are going up on every side. Between 6000 and 8000 acres of vines have been set out in this vicinity this winter. The Borden Farm Colony have set very largely also of the Muscat Grape. The Howard & Wilson Colony and the Fresno Fruit and Land Co. are setting largely of Muscat vines.

The growing looks fine, but is rather backward. We have had a good share of rain. Ranchers are jubilant.—J. L. B. Madera.

**APPLE CULTURE AT DUNLAP.**—*Dunlap Cor. Reedley Exponent*, March 26: Apples have been tried here with success. J. W. Todd set out trees three years ago, and he realized quite a profit from them last fall. He is putting out 1100 this spring. He has 700 already out and will be through in a short time.

**SHEEP SHEARING IN FRESNO COUNTY.**—*Centerville Cor. Exponent*: Bob Woods began shearing his sheep Monday morning. He has about 3000 head at the foot of Tivey mountain, but hopes to get through by Friday.

#### Humboldt.

**AGITATING FOR A CREAMERY.**—*Enterprise*. The dairymen of the Grizzly Bluff, Coffee Creek and upper Salt River sections in Humboldt county are seriously considering the project of erecting a creamery at some point in that neighborhood. A couple of meetings have been held to discuss the question, and if a satisfactory understanding can be arrived at the move will be a go.

#### Kern.

**EARLY BARLEY.**—*Bakersfield Echo*, March 26. The first sample of the grain grown from the early barley distributed by the *Echo* last fall was brought in by W. H. Walker whose ranch is on the Summer plains. He says that it was sown on December 20th. It was out in good head and about ready to cut for hay. The straw is about three feet in length and carries a good amount of leaves—an item of some importance in hay making. The heads are not large, nor are they particularly small. The sample shown us was gathered just three months from the day of sowing the seed. If this weather continues, the crop will be ready for hay by April 1st. The land on which it grew was cultivated before and has not, we believe, been irrigated. The only merit we claimed for this barley over other varieties is its earliness. It seems probable that our claim will be sustained. If it proves really true that in this we have a barley that will mature in 90 to 100 days, or by the first to the middle of April, the question of grain-raising on the unirrigated plains and hills will be nearer solution than heretofore. It is the long warm days after the middle of April which try the vitality of grain generally in this part of the State.

**CHANGE FOR THE BETTER.**—*Bakersfield*, March 26. In many places it is noticeable that the stately poplars that have grown along the public highways are being felled and fruit or nut-bearing trees—generally the fig and walnut—are being planted in their stead. Imagine the grandeur of the country when the highways are overspread with branches of these noble trees. A small effort and a little time will suffice to make our country roads the most attractive of any in the State.

#### Los Angeles.

**MARKET EAST FOR EARLY MATURED POTATOES.**—The following, a part of a private letter from Major Truman in Chicago, is taken from the *Santa Ana Press*: "I am of the opinion that if your farmers could rush some potatoes to maturity early, there would be big money in it. There are no potatoes, hardly, in the East, and none can be planted until May, when new ones should come, and big ones, in June. I throw this out as a suggestion. I bought some potatoes a few days ago at eight cents per pound. Again, I paid 35 cents for half a peck, just what I have paid five cents for in Southern California many a time."

**ORANGE-GROWERS PREPARING TO FIGHT.**—*Pomona Times*, March 24: Joel Parker of Orange is in town. He is a committee of one appointed by the orange-growers of his county to visit the orange-growing sections of other counties and organize the growers in opposition to the patent of the gas treatment for insect pests. His mission has so far been successful wherever he has gone, and ought to be so here. The patentees propose to charge a royalty of ten cents per tree for the use of the gas treatment. An effort will be made to have the patent annulled, as the treatment was perfected by a Government official and was in general use in this country before the patent was applied for.

#### Monterey.

**THE BONE INDUSTRY.**—*Salinas Index*: Quite an industry is growing up in portions of the country gathering bones for sugar refineries. They are worth \$10 a ton, and in some places, where anthrax ravaged the herds some years ago, the labor of gathering is well paid. The bones are calcined before use and all danger from infections is taint is burned out.

#### Mendocino.

**HOW THE HOR-HOUSE INCUBATOR WORKED.**—*Ukiah*, March 26: The 6000 eggs put in the hor-house, to see if it would answer as an incubator, hatched out about 2000 chickens. The *Petaluma Imprint*, referring to it, says: This is not a very good average for a first-class mod-

ern incubator, but all the same it demonstrates that with the usual care in the selection of eggs and the maintenance of proper temperature, all of which is mere detail, the scheme is entirely practicable. As an evidence of its practicability, our informant told us that a second set of 24,000 eggs is now on and will be out in about two weeks more.

#### Sacramento.

**CROP PROSPECTS.**—*Sacramento Bee*, March 25: As the season advances, it becomes more than ever evident that California has entered upon one of the most prosperous years ever known in the history of the State. A large grain-grower from the vicinity of Knight's Landing said that in the many years he had been engaged in farming in the Sacramento valley he had never seen grain on the uplands look so well at a corresponding season as it does now. "Of course a considerable acreage on the lower lands has been drowned out by the overflow, but in comparison with the entire area sown in grain, it is comparatively small. The increased product, if present promises are fulfilled, will swell the total product to the top notch." The acreage of hop-fields in this county will be largely increased this year. A number of farmers are adding to their yards by a few acres, while there are some very large increases. Thos. Loydal, a large farmer on the Yolo side, near Washington, will plant about 160 acres more of the roots, which will give him over 200 acres in vines, and make him one of the principal growers in the State. The occupants of the submerged farms across the river are not greatly damaged, as at first feared. The rapid subsidence of the waters have enabled them already to begin replanting and their heaviest loss will be in the seed destroyed. It is held by some that the flood was a benefit in the main, for many of the low places have been filled in by the inflowing debris and sediment, and the general ennobling of the soil will be more than compensated by the temporary loss.

**HISTORY OF A DATE PALM.**—*News*: The late John F. Swift, author and Minister to Japan, was no small traveler in his way and could interest an audience equally with Stanley. We have in our city a living monument to Swift's travels in the Dark Continent. Once while travelling in Algiers, Aïr, Mr. Swift became fatigued under the burning rays of the tropical sun and resolved to take refuge for a few hours under the friendly branches of a magnificent grove of date palms which he saw in the distance. Upon arriving at the grove he found that they not only afforded shade but were abundantly provided with refreshing fruits. He found the berries to be the most delicious he had ever eaten, and while reclining at the trunk of one of the largest trees he thought himself of his old Sacramento friend, B. B. Redding. He immediately collected several of the date seed and enclosed them in an envelope which he afterward forwarded at the first opportunity. Mr. Redding received the seed in good order, planted them, and three tiny date palms rewarded his efforts. One he gave to Dr. G. C. Simmons, who planted it on the corner of Tenth and N streets, where it has flourished for 14 years. It may now be seen there, the largest and finest specimen of date palm in the city. Last year it bore the first fruit, but Dr. Simmons plucked it. cluster before they ripened, fearing that the tree might be injured by early bearing.

#### San Bernardino.

**SUGAR BEET PLANTING AT CHINO.**—*Champion*, March 27: There are now planted and under contract to plant, 2400 acres to sugar beets on the Chino ranch; and as far as heard from, about 350 off, the latter mostly at Ontario and El Monte. This is an excellent showing. Planting can and will be continued till June 1st or later on the Chino ranch. There has been no difficulty in renting land to parties anxious to grow beets. The fact that planting can be advantageously extended over from three to four months of time, is an important one in every respect. The farmer can care for more beets at all stages—from plowing the land to marketing the crop. At this writing over 1000 acres have been planted, and the work goes on, on every side.

**POTATO PLANTING.**—*Cosumonga Cor. Ontario Record*, March 25: "Spud" planting is in full blast. The ground is in good condition to work and is moist enough to sprout the seed in good shape.

#### San Diego.

**GRAIN CROP PROSPECTS AT VALLEY CENTER.**—*O. McIndy in Escondido Times*, March 26: The abundance of rain removes all doubt as to the chances for crops in 1891, and hopeful harvests are assured. People should bear in mind, though, that Southern California is practically independent of regular rainfall, and that even a long protracted drought would cause comparatively no apprehension, because our irrigation systems are so extensive and reliable. Some crops might be damaged in some of the drier localities by an entirely rainless season.

**SILK CULTURE IN SAN DIEGO.**—*S. D. Union*, March 26: Mrs. Fannie Parks, formerly of Kent, England, has placed an interesting exhibit of spun silk in the Chamber of Commerce rooms. Mrs. Parks is an enthusiast on the subject of silk culture, and has succeeded in interesting a number of San Diego ladies in a project to start a "silk culture" in this city. An association was formed by about a dozen prominent ladies, among whom may be named Mesdames Parks, Williams, Gilday, Biles, Buck and Stevens, with the object of actively

engaging in the raising of cocoons and the manufacture of silk. A building was rented in the Whitney addition, and two experienced Japanese were engaged to superintend the venture. A request has been sent to Washington for silkworm eggs, and a number of nurserymen and others who have mulberry trees have promised a supply of leaves for the food of the young worms. Mrs. Parks has had considerable experience in an amateur way in the making of silk from cocoons and thoroughly understands the business of handling the worms. She sees no reason why the enterprise should not prove successful here, as the climate is exactly suited to the silkworm, and its natural food—mulberry leaves—may be had in plentiful supplies.

#### San Luis Obispo.

**LARGE GRAIN AT SUNSET.**—*Sunset Cor. S. L. O. Tribune*, March 27: The farmers are jubilant since the last rains. There will be the finest crops harvested that were ever seen in this locality. But the question that is agitating our Grangers is, how are the crops to be handled to market? It is estimated that there will be from 150,000 to 200,000 centals of wheat raised that will have to cross the San Juan and Estrella rivers.

#### San Joaquin.

**SONG BIRDS FOR SAN JOAQUIN.**—*Stockton Mail*, March 27: H. H. Hewitt has received a letter asking him to secure subscriptions for stocking San Joaquin county with song birds. The only wild songsters here are the canary and the Starling, the latter being commonly known in America as the meadow lark. The letter comes in pursuance of a general movement to stock the whole State with song birds, each county to subscribe money for the purchase of as many pairs as it desires. The expense is estimated to be as follows for 20 pairs of each:

Sylarks	80
Mocking-birds	110
Bull-finches	80
Nightingales	110
Gold and green finches	50

Total.....\$430

The foregoing represents the expense of getting the birds to San Francisco. The cost of bringing them to this city would be \$20 more, making a total of \$450 for the hundred pair represented in the selection. It will be noticed that the list embraces nightingales. There are occasionally a few to be heard here now, but they come rarely. It is said that birds will home where they are turned loose. They will migrate, it is true, during the migration season, but will return home to nest.

**SECOND-CLASS GRAIN BAGS.**—*Lodi Valley Review*, March 26: Pomona Grange has brought 500 bags from San Joaquin for inspection by the farmers of this neighborhood. The bags are second-class and are made to supply a demand for a cheaper grade of sacks for barley. The 500 which they will have here to-day will be sold at 5½ cents. Farmers who wish to order a lot of these bags can have them furnished by J. D. Huffman, who has the sample lot here in charge.

**LARGE SHIPMENTS OF HAY.**—*Stockton Mail*, March 25: It is said that the shipment of hay from this city to San Francisco has never before been so large as now. The cause is supposed to be the promise of a good year, which has resulted in holders letting their hay go to supply the present demand. Some of the hay being shipped is of very poor quality, and was evidently ordered as stuff to be worked into better lots.

#### San Mateo.

**EDITORS PRESS:**—Our county (San Mateo) has not in the 20 years I have known it presented so flattering a prospect as at present. Our early rains gave the very best opportunity to plant all crops seasonably. Our milk supply to your city from one-half score or more of the very best dairies will be amply rich in cream from the abundant natural pastures. No milk inspectors are required now.—J. T. Hoyt, *San Mateo*.

#### Shasta.

**LARGE ORCHARD IN SHASTA COUNTY.**—*Anderson Enterprise*, March 26: In company with Mr. D. Z. Hawkins, Superintendent for Walter Frear of Oakland, and E. F. Woodward, of Santa Rosa, we visited the 465 acre farm of the two latter gentlemen. Soon after arriving we wended our way across a 200-acre field of growing grain under ponderous oaks, to the 100 acre orchard planted this season. Where last fall was a grove of oak trees, some measuring 10 feet in diameter at the base, is now a beautiful stand of peach, prune and Bartlett pear trees. Mr. Hawkins planted his trees 25 feet apart giving 69 trees to the acre; 775 trees were planted, or a total acreage of about 102½. The varieties of trees planted this year are the very choicest, and will bear the most marketable fruits. They are as follows: peaches, Orange oling, 910, Foster 490, Salway 175, Muir 620, Mary choice 345, Brice early 6, Waterloo 6; French prunes 2450, Oregon silver prunes 350; Bartlett pears 1400; Shingehanna peach 350. Messrs. Frear and Woodward have about 350 acres, which it is their intention to clear and plant to fruit as early as possible, probably adding 150 acres next spring. About 35 acres of low land next to the river, covered with a growth of underbrush and trees, will not be disturbed but kept as a pasture for stock.

#### Sonoma.

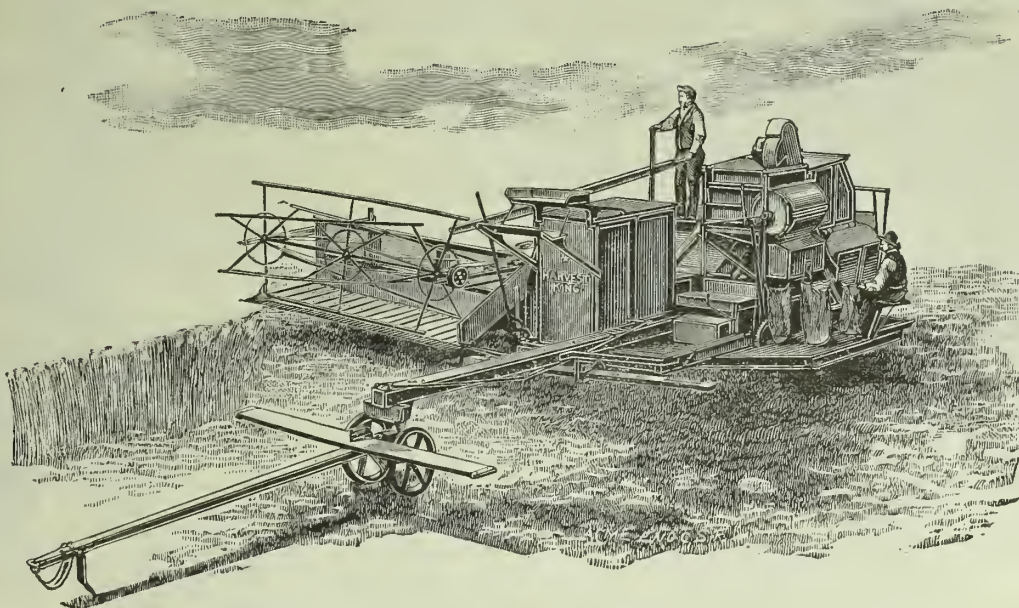
**A NEW AGRICULTURAL INDUSTRY.**—*Healdsburg Tribune*, March 18: Coffee corn, a variety (Continued on page 320.)



# COMBINED HARVESTERS AND TRACTION ENGINES.

WE HAVE

**THE LARGEST  
TRACTION  
ENGINE  
EVER BUILT  
ON THIS COAST.**



WE HAVE

**THE BEST  
TRACTION  
ENGINE  
EVER MADE.**

## THE "HARVEST KING" HARVESTER.

NONE RETURNED DURING A PERIOD OF FOUR YEARS. PERFECT SATISFACTION.

A full line of Headers, Hay Presses, Plows, Gang Plows, Spring Wagons, &amp;c.

**BENICIA AGRICULTURAL WORKS,  
BENICIA, CAL.**

## H. C. SHAW PLOW WORKS,

Sole Agents for California for the Celebrated

### TRIUMPH MOWER,

SIZES, 4-foot 3-inch Cut, 4-ft. 6-in. Cut, 5-ft. Cut, 6-ft. Cut.

### TRIUMPH REAPER,

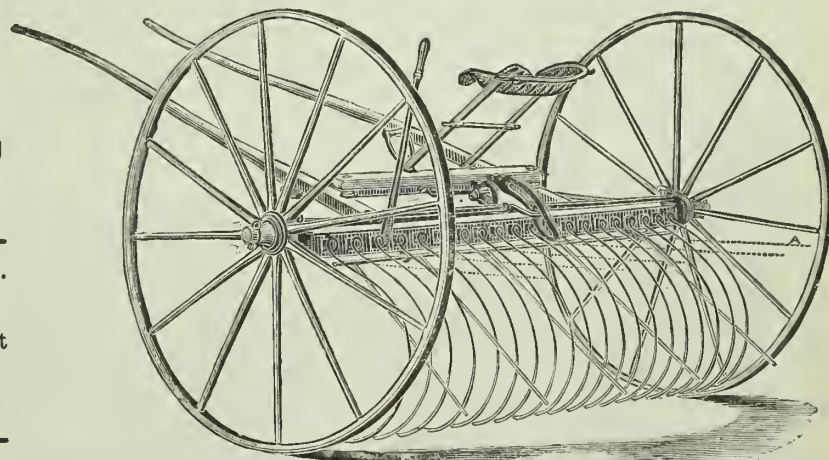
5-Foot Cut.

Hundreds in Use and all giving  
Perfect Satisfaction in  
Every Way.

It has the Lightest Draft,  
It has the Most Positive Cut,  
It has Ease of Management,  
With Perfect Adjustment.

SEND FOR CIRCULARS.

Unquestionably the Best  
Mower and Reaper  
Sold on the Coast.

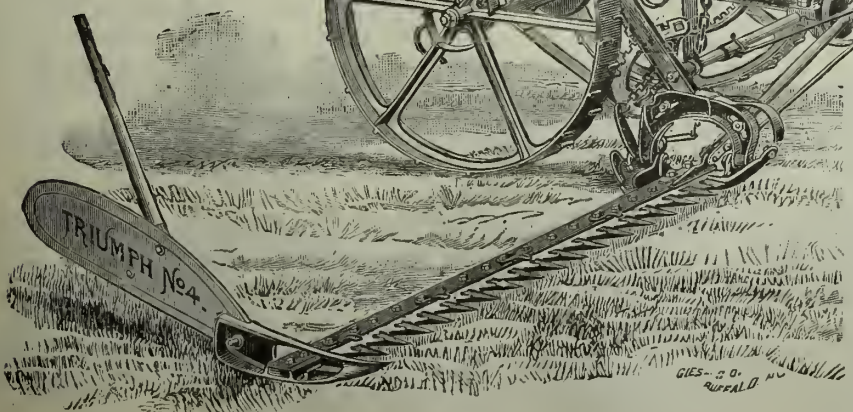


### CHAMPION RAKE.

WHY IT TAKES THE LEAD.

It has our patent tooth to PREVENT SCRATCHING.  
It has NO SPRINGS to get out of order.  
It RUNS BACKWARD as well as forward.  
It has NO JAR ON THE THILLS in dumping.  
Its thills work as freely as those on a carriage.  
It will NOT SCRATCH UP FINE SEEDING in harvest field.  
It has an OSCILLATING CLEANER THAT KEEPS THE HAY FROM ROLLING and working out at both ends into the wheels.

It costs more than Rakes with ordinary teeth, but is WORTH TEN TIMES THE EXTRA COST.  
It will run over trash lying on the ground, and leave it there.  
It will rake barley, rye, oats, Hungarian and millet free from dirt.  
It is so easily managed that a boy who can drive a horse can use it as well as a strong man.  
It can be held down to MAKE VERY LARGE WINDROWS, or bunch them up.  
It has an OSCILLATING CLEANER THAT KEEPS THE HAY FROM ROLLING and working out at both ends into the wheels.  
It will rake "scatterings" perfectly, because the cleaner keeps the hay from rolling.  
It is very easy to keep up the teeth after going over a windrow.  
It packs the windrow, leaving it in good shape for rolling up or pitching.  
It dumps DAMP PART OF WINDROW ON TOP, and saves use of hay tedder.  
It can rake the heaviest grass that grows, as soon as cut.  
It will give better satisfaction than any other rake sold in this country.



361, 363, 365, 367, 370, 389 & 391  
EL DORADO STREET, STOCKTON, CAL.



## Agricultural Notes.

(Continued from page 318)

some two years ago imported from the wilds of Africa for ostrich feed and transplanted in various parts of America, is being grown in Dry Creek valley by J. R. Reynolds, who reports it a big success. This species of *granum* is smaller than pop-corn, but it is much more luscious, grows thicker on the ear and bears three crops a year. With a few pounds of seed, which Mr. Reynolds planted two seasons ago, he now has several acres planted to it from that small quantity, and an average of three tons of the Caffre corn can be produced to the acre. It makes a most beautiful foliage, and as for fodder, dry or green, for stock, is far superior to any other vegetable. Mr. Reynolds says that the flour made from this corn is equally as good as wheat and recommends it as a most profitable article for agriculture.

**THE SAN JOSE SCALE.**—W. N. Gladden in *Healdsburg Tribune*, March 18:—In my examination of orchards I find those in the vicinity of Healdsburg and in Dry Creek valley, north-west of town, the worst infested with the San Jose scale. Some orchards in those localities have trees that are dying from the work of this insect. It is getting late in the season to spray with the lime, sulphur and salt compound, as it may be used only when the foliage is off the trees, when no injurious effect will result to the trees or fruit buds. It is not too late yet for apple, pear, prune and some varieties of plum. Examine your trees, and if infested spray them if possible. Old apple orchards are nearly all infested and covered with moss and look sickly. Such orchards should be sprayed even if no scale is found. It will invigorate the trees and clean them off, effectually destroying the moss.

## Tulare.

**FRUIT GROWING AT LEMOORE.**—*Visalia Times*, March 26th: The fact having been demonstrated that this is a fruit country has given a stimulus to fruit and vine planting. It is estimated that 3000 acres in this immediate vicinity were planted last year, and that 4000 acres will be set to trees and vines this season. These figures do not include any lands that would be tributary to adjoining towns.

**CHEESE - MANUFACTURING AT VISALIA.**—*Times*, March 26: The Visalia creamery is now receiving milk enough to manufacture about 300 pounds of cheese per day. A number of farmers who have not heretofore supplied milk to the manufactory have signified their intention to do so very soon, whereby the output of cheese will be considerably increased.

**SAN JOAQUIN VALLEY SETTLING UP RAPIDLY.**—*Travis Advocate*, March 25: The rapidity with which the San Joaquin valley is settling up is remarkable; although the boom three years ago brought more people during that length of time than ever before, it did not bring as many actual settlers. The present immigration is the kind wanted.

**DINHA FRUIT NOTES.**—*Dinaha Cor. Advocate*, March 25: Eighty acres on Section 22, two miles from town, were bought last week by produce merchants in Boston, Mass., and New York City. They are planting it all to vines and trees. They will make Dinaha a point to ship fruit from to Eastern markets. Miss M. Parr of Warrington, England, is planting out 20 acres to vines and trees. Miss N. R. Armstrong is planting out 15 acres to vines and trees, and beautifying it with needful and ornamental trees. Mr. A. Carey will start to England in April to bring 40 or 50 families to make homes on his large tract of land two miles from Dinaha.

**EXPERIMENTS WITH ALKALI.**—*Register*, March 20: Experiments are being made at the culture station with a view to ascertaining what may be done toward washing the alkali out of soil. Some of the worst alkali spots there are being worked on. Trenches are dug two or three feet deep leading to a sump dug to a depth which brings the bottom below the surface water stratum. In these trenches are placed inverted V troughs, after which they are filled in, channels thus being left. The alkali spot is then flooded with water, which seeps into these channels and is carried to the sump, conveying the alkali from the soil. It is thought this plan will succeed on small tracts where there is plenty of water.

**AGAINST PLANTING SMALL POTATOES.**—*Farmersville Cor. Visalia Times*, March 20: If the size of the potatoes keeps on lessening during the next ten years as it has during the last 15 years, the merchants will have to cease handling them and ship from San Francisco, as they will be too small for cooking. There is no question but what we have as good potato land as there is in the State, but we have small potatoes. I cannot account for it in any other way but that the principal cause is on account of planting little potatoes every year. Small potatoes, like many other kinds of seed, have a tendency to produce a similar product. It will not be noticed much in one crop, but it will be materially noticed in a few crops. I have noticed in the Eastern States that the farmers plant the largest potatoes the same as selecting the largest wheat grain, etc., for seed. I see no way out of this matter but to improve the seed by shipping in large Early Rose potatoes from the bay and continue to plant large potatoes thereafter.

## Yuba.

**HOW THE LIEN LAW AFFECTS FARM MACHINERY.**—*Marysville*, March 15: An action was begun last October by John McWilliams and others against E. B. White to recover pay-

ment for work done for the latter on a threshing-machine. The machine was owned by James O'Brien, but had been leased by White. Plaintiffs claimed that according to the lien law they could hold the machine for the payment of their wages, no matter whom it belonged to. They brought suit and recovered judgment, and the sheriff was ordered to sell the property. Mr. O'Brien, the owner, asked for an indemnity bond, so the sheriff refused to sell the threshing-machine until such bond was given by the court. The court ordered that officer to appear and show cause why he should not make the sale. Judge Grady took the matter under advisement and sent his decision ordering the sheriff to proceed with the sale without an indemnity bond. The judge holds that the lien law protects laborers from being swindled out of their wages, and that it matters not to whom the property belongs, it must be held good for payment. He holds that so long as the machine belongs to Mr. O'Brien he should have seen that the men received their pay.

## ARIZONA.

**WILD HOGS OF LERDO, ARIZONA.**—*Yuma Times*, March 25: Roaming over the lands of the Lerdo colony, 70 miles south of Yuma, are droves of wild hogs, variously estimated at from 1000 to 3000 in number. They are descendants of tame hogs placed on the ranch when Thomas H. Blythe was part owner, about 13 years ago. After Blythe's decease and subsequent reversion of his interest to Gen. Andrade, the hogs were turned loose and allowed to go at will over the rich bottom lands of the Colorado river. As the wild hog became tame under restraint and kind treatment, so the tame hogs of Lerdo rapidly became wild when allowed to run at large. A few generations transformed them into savage beasts, who would attack and eat a man if they had the opportunity. They subsist chiefly on the wild potato, a tuber which grows the size of a walnut and in great profusion. The present owner of Lerdo, Gen. Andrade, conceived the idea of having the hogs caught and the meat cured for the use of the colonists. Operations were begun about a year ago, and though not conducted on a large scale, have proven successful. The hogs are caught in a circular corral about 30 feet in diameter, having a trap door. Plenty of bait in the shape of corn and potatoes is scattered about the entrance and also hurled in the corral. A band of hogs are attracted by the bait, enter the corral, commence rooting for the buried corn and potatoes, and when the right spot is struck by them, the trap door falls and they are prisoners. The hogs are fed awhile before slaughtering. Their meat is of fine quality and the lard sweet and delicious.

**A NOVEL IDEA TO OUTDO THE TARIFF ON EGGS.**—*Yombasone Prospector*: Since the duty on eggs has been the ruin, many devices have been thought of for manufacturing them. The idea of a Nogales man is, however, the only feasible scheme up to date. His proposition is to feed hens on the cheap grain of Mexico and have them lay in the United States. For this purpose a long building will be placed on the line, half in Mexico and half in the United States. They will feed and water in the Mexican end, and when they want to lay they go to the farther end of the building, and in that way escape paying the duty. The projector of this enterprise came from Maine.

## A Worthy Institution.

One of the most needful and well conducted homes for the sick and unfortunate on this coast is that of the Pacific Hospital, conducted by Dr. Asa Clark and Sons at Stockton.

There has been no other private retreat for weak and temporarily diseased minds so well established on this coast. It is also by far the largest, most complete and best conducted of any, Dr. Clark senior having maintained the institution through his successful practice and management for over 20 years.

It is very conveniently and pleasantly located within a mile or less of the southern suburbs of the city. The premises are ample, with beautifully shaded grounds in front of the comfortable appearing buildings.

The able and long-experienced senior physician has received grateful personal acknowledgements from thousands of convalescent patients, and but for the nature of the afflictions cured, (brain difficulties) his rare and good accomplishments would no doubt have made his home and hospital household words all over the coast through grateful newspaper correspondence.

It is largely for this reason we have taken particular pains to mention the merits of this deserving institution, believing that giving a more wide-spread knowledge of its existence and true status will be an act of justice and great benefit to many unfortunate persons.

## WHAT HE DID WITH IT.

He bought the Buggy of the Pioneer Buggy Co., and then took Maud for a drive. But he kept on the good side of the father, by presenting him with a copy of the "Complete Horse Book," which we send free for 10 cents in stamps or silver. Pioneer Buggy Co., Columbus, O.

\$500,000

TO LOAN IN ANY AMOUNT AT THE VERY LOWEST market rate of interest on approved security in Farming Lands. A. SCHULLER, Room 8, 420 California St., San Francisco.

## State Appropriations for the Fair.

Bills have been presented in the Legislatures of the various States and Territories as follows, for appropriation to the World's Fair at Chicago:

Alabama	\$30,000
California	300,000
Connecticut	25,000
Colorado	150,000
Idaho	20,000
Illinois	1,000,000
Indiana	75,000
Iowa	50,000
Kansas	50,000
Maine	40,000
Massachusetts	75,000
Minnesota	100,000
Missouri	100,000
Montana	100,000
Nebraska	150,000
Nevada	20,000
New Jersey	20,000
New York	250,000
North Carolina	25,000
North Dakota	25,000
Ohio	100,000
Oregon	100,000
Pennsylvania	300,000
Texas	300,000
Vermont	5,000
Washington	240,000
West Virginia	40,000
Wisconsin	250,000
Wyoming	30,000
New Mexico	25,000
Oklahoma	7,000

Total \$4,002,000

Bills have been introduced in the following Legislatures and entirely failed:

Arkansas	\$100,000
South Dakota	25,000
Total	\$125,000

Both houses in these two States voted against the bills and refused any appropriations.

In the following States the World's Fair appropriation bills have been passed by both houses of their Legislatures and been signed by the Governors and are in force:

California	\$300,000
Idaho	25,000
Indiana	75,000
Iowa	50,000
Montana	100,000
New Mexico	25,000
North Carolina	25,000
Oklahoma	7,000
Oregon	100,000
Pennsylvania	150,000
Vermont	5,000
Washington	100,000
West Virginia	50,000

Total \$1,007,000

**VAUGHAN'S CATALOGUE.**—We have before us an artistic work of about 200 pages with illuminated covers, colored plates and hundreds of illustrations, many of them made from photographs. This is the catalogue of Vaughan's seed store, Chicago, for 1891, and is by far the most beautiful and instructive yet sent out by this thoroughly enterprising and reliable house. All the novelties and a very complete list of garden, flower, field and farm seeds are offered together with as fine a collection of choice greenhouse plants, palms, cannas, dahlias, gladioli, lilies, etc., as can be found in the country, embracing many new things never before catalogued. The Vaughan potato is introduced by this house this season. All garden supplies, plows, cultivators, harrows, seed drills and fertilizers are carried in stock. It will pay you to get this book; it is a good thing to have around. Sent free to all who desire to purchase.

## Our Agents.

OUR FRIENDS can do much in aid of our paper and the cause of practical knowledge and science, by assisting Agents in their labors of canvassing, by lending their influence and encouraging favors. We intend to send none but worthy men.

GEO. WILSON—Sacramento Co.  
J. C. HOAG—San Francisco.  
F. W. KNAPP—Amador Co.  
GEORGE EVANS—Santa Clara Co.  
M. S. FINE—Alameda and Contra Costa Cos.  
F. L. LOKAN—Solano and Yolo Cos.  
D. G. CLARY—Sonoma Co.  
S. S. SAUL—Fresno Co.  
E. H. SCHAEFFLER—Central California.  
A. S. COOLEY—Tehama Co.  
WM. M. HILLBARY—Oregon.  
WM. HOLDRON—Oregon.  
WM. OLSON—Washington.

## Successful Patent Solicitors.

As Dewey & Co. have been in the patent soliciting business on this Coast now for so many years, the firm's name is a well-known one. Another reason for its popularity is that a great proportion of the Pacific Coast patents issued by the Government have been procured through their agency. They are, therefore, well and thoroughly posted on the needs of the progressive industrial classes of this Coast. They are the best posted firm on what has been done in all branches of industry, and are able to judge of what is new and patentable. In this they have a great advantage, which is of practical dollar and cent value to their clients. That this is understood and appreciated, is evidenced by the number of patents issued through their SCIENTIFIC PATENT AGENCY (S. F.) from week to week and year to year.

## Commends It to All.

R. D. Cruickshank, foreman of the Experiment Station in San Luis Obispo, in renewing his subscription to the *RURAL* kindly remarks: "Feeling well pleased with your paper as regards its moral tone and the instructive articles which it constantly contains, I have taken pleasure in commending it to all I come across."

THERE is very little ebb or flow of the tide in the Arctic, but occasionally there are very strong currents. All winter there is a general flow of tide and ice toward the south, while in summer this flow is northward.

\$3,250,000

TO LOAN ON MORTGAGE ON RANCHES AND CITY real estate below market rates. HOWE & KIMBALL, 508 California St., S. F.

## GRANGERS' BANK

OF CALIFORNIA,  
SAN FRANCISCO, CAL.  
INCORPORATED APRIL, 1874.



Authorized Capital \$1,000,000  
Capital paid up and Reserve Fund 800,000  
Dividends paid to Stockholders 627,500

## OFFICERS.

A. D. LOGAN, President  
J. C. STEELE, Vice-President  
ALBERT MONTPELLIER, Cashier and Manager  
FRANK McMULLEN, Secretary  
General Banking. Deposits received, Gold and Silver. Bills of Exchange bought and sold. Loans on Wheat and country produce a specialty.  
July 1, 1889. A. MONTPELLIER, Manager.

## STOCK SCALES

4 TON \$45.

U.S. STANDARD, FULLY WARRANTED.

Delivered at your R. R. Station and ample time for building and testing allowed before acceptance.

OSGOOD &amp; THOMPSON, Binghamton, N. Y.

## PORTABLE PLATFORM SCALES, TRUCKS, ETC.

Twenty-five per cent cheaper than any other on the market. Send for Catalogue.

C. H. LINDEMANN, Agent,

126 KEARNY ST., SAN FRANCISCO.



IT WILL SUIT YOU.

THE VERY BEST &amp; CHEAPEST FLOUR.



PRIZE MEDAL OF CAL. STATE FAIR, 1890

## IT STANDS AT THE HEAD!

"DOMESTIC"  
THE LIGHT RUNNING

DO NOT FAIL to SEE THE "DOMESTIC"

Before Buying a Sewing Machine.

It is the lead in practical progress. Send for price list.

W. EVANS, 29 Post St., S. F.

J. G. H. LAMPADIOUS, 806 Davis St., San Francisco.

## Farmers' Agent.

EGGS, BUTTER, CHEESE, POTATOES, BEANS Dried and Green Fruits. Seed a Specialty.

## NOTICE!

THE ANNUAL MEETING OF THE STOCKHOLDERS of the Grangers' Business Association, a corporation, for the election of a Board of Directors, and for the transaction of such other business as may properly come before it, will be held at 103 Davis street, San Francisco, at 10 o'clock a. m., Wednesday, April 5th, 1891.

J. C. STEELE, President.

CHARLES WOOD, Secretary.

ENGRAVING—SUPERIOR WOOD AND Metal Engraving, Electrotyping and Stereotyping done at the office of this paper.

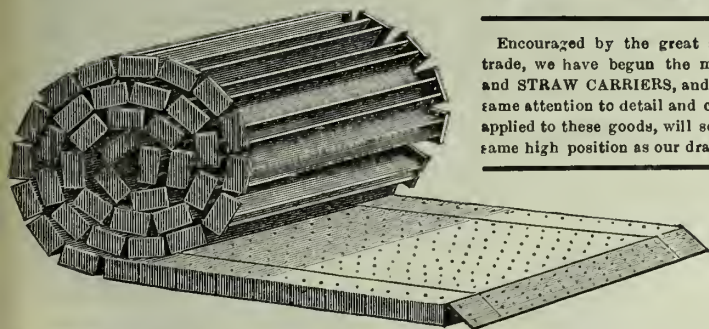
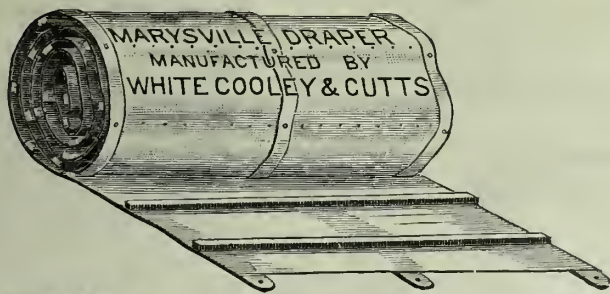


# DRAPERS, GRAIN CARRIERS, AND STRAW CARRIERS,

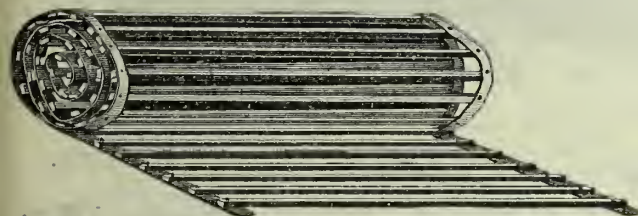
For Headers, Threshers and Combined Harvesters.

We have manufactured the MARYSVILLE DRAPER for 15 years, and our trade extends all over the Pacific Coast.

Excellence of workmanship and the use of the best materials are appreciated by farmers, as indicated by our large and growing trade.



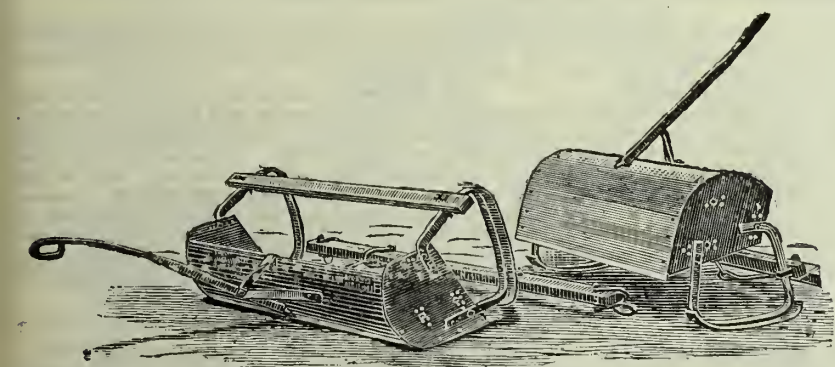
Encouraged by the great success of our draper trade, we have begun the manufacture of GRAIN and STRAW CARRIERS, and feel confident that the same attention to detail and careful management, if applied to these goods, will soon place them in the same high position as our drapers.



THE BEST  
—18—  
The Cheapest  
LOW PRICE  
—18—  
NO TEST OF  
CHEAPNESS.  
FOR SALE BY THE  
Principal  
Agricultural  
Dealers  
ON THE COAST.

## WHITE, COOLEY & CUTTS,

34, 36, 38 D STREET, - - - - - MARYSVILLE, CAL.



### FRESNO CANAL, DITCHING AND LEVELING SCRAPERS.

FIREBAUGH, CAL. (Poso Farm), November 8, 1889.  
MR. JAS. PORTEOUS, Fresno, Cal.—DEAR SIR: In answer to yours of 6th inst., will say that I have found your new style four-horse Scraper the best all-round Scraper I have yet tried. Respectfully yours,  
J. W. SCHMITZ, Supt. Miller & Lux.

SEND FOR CATALOGUE AND PRICE LIST.

### FRESNO AGRICULTURAL WORKS

FRESNO, CAL.

## SAN FRANCISCO TOOL CO.,

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Machinery of all Kinds.

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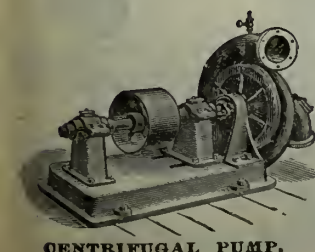
### Patent Water Tube Steam Boilers.

Estimates Furnished on Application.

Send for Catalogues.

WORKS:

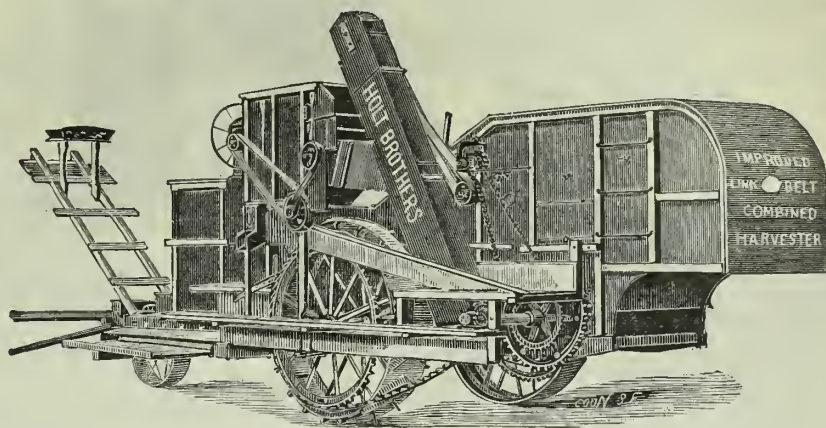
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CENTRIFUGAL PUMP.

# HOLT BROTHERS'

## Improved Combined Harvester.



For Efficiency, Durability, Light Draft and Fine Work it is Far Superior to any other Harvester of the Present Day.

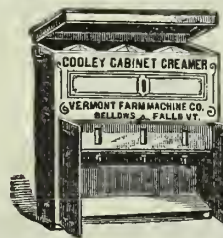
Those contemplating buying are invited to visit our manufactory and see for themselves. Circulars and testimonials sent on application to

STOCKTON WHEEL CO., or, HOLT BROTHERS,  
Stockton, Cal. 30 & 32 Main St., S. F.



## COOLEY CREAMERS

ARE THE MOST POPULAR AMONG DAIRYMEN.  
BECAUSE THEY MAKE MORE BUTTER.  
BECAUSE THEY MAKE BETTER BUTTER.  
BECAUSE THEY SAVE MOST LABOR.



Because the PROCESS EXPELS the animal heat IMMEDIATELY, and PREVENTS the development of BACTERIA, thus producing the PUREST FLAVOR, and accounting for the great number of Medals awarded viz.:

### 22 GOLD MEDALS

and Silver Medals and First Premiums too numerous to mention. In 4 styles and 12 sizes. VERMONT FARM MACHINE CO., BELLOWS FALLS, VT. Illustrated catalogue free. Manufacturers of and Dealers in Churns, Butter Workers, Butter Printers and Carriers, Cheese Vats, Cream Vats, Engines, Boilers, and all Dairy and Creamery supplies.



## SYRACUSE PLOWS

Chilled Iron and Steel Plows

Single and Reversible Sulky Plows.

Horse Hay Forks and Conveyors.

Hillside Plows.

Steel Frame Cultivators.

Shovel Plows.

Spring Tooth Harrows.

Road Scrapers.

UNEQUALED BY ANY OTHERS MANUFACTURED.

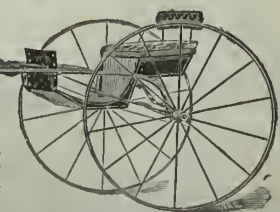
Agencies in All Cities and Towns. Send for Free Illustrated Catalogue.

### SYRACUSE CHILLED PLOW CO., Syracuse, N. Y.

## THE BLUE RIBBON CART, WITH PHAETON BODY.

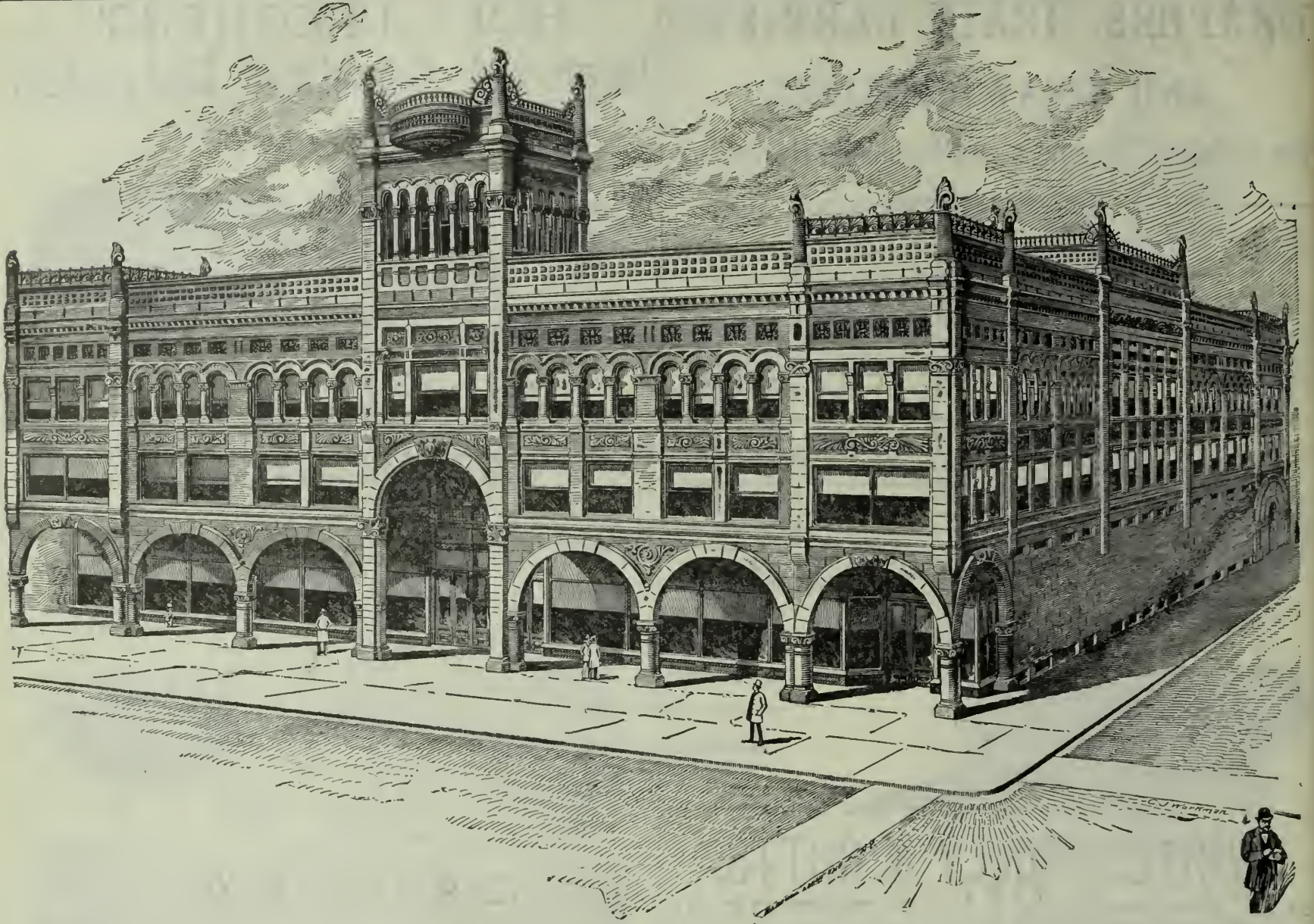
\$35

Has a seat wide enough for two, with box underneath for parcels. The body has been lengthened, is securely framed and strengthened by making the panels in one piece. Seven wheels, steel axles, and curved dash. Finished in scarlet lake or brewster green. The "Blue Ribbon" has proved to be the best built, most popular and best selling low-priced Phaeton Cart ever brought to this market. With Patent Spiral Spring Lazy Back. Shipped securely crated. Weight, 175 pounds.



### FRANK BROTHERS, 33 & 35 MAIN STREET SAN FRANCISCO.





THE NEW BUILDING OF WEINSTOCK, LUBIN &amp; CO., SACRAMENTO, NOW IN COURSE OF CONSTRUCTION.

The new building of Weinstock, Lubin & Co. of Sacramento, now in course of construction, will present many unique features, which, collectively, will make it quite different from any other building on the coast, or, for that matter, in the country. The sketch herewith presented is from the drawings of Mr. Wm. H. Hamilton, architect, and gives a good idea of what the effect of the exterior will be when completed.

The front rests on a series of massive arches supported by columns 20 inches in diameter. The show-windows set back under the arches ten feet from the sidewalk, permitting an

arcade walk between them and the main sidewalk. This idea of arches and arcade is new on the coast and solves in a most satisfactory way the question of protection from sun and rain without the use of objectionable awnings.

The main doorway will be in the center of the building and of imposing character, its width being 22 feet and height 35 feet. The large windows seen in the second story of the building are each seven feet square.

The interior of the building will be of even more unusual character than the exterior. Contrary to the idea which the sketch gives of a three-story building, the interior will be simply

one vast sales-room the full size of the building, and extending from ground floor to roof. This main sales-room will be surrounded by three rows of galleries on all sides.

The second row of galleries will be connected by steel bridges starting from the corners and running diagonally across the open space of the store. These bridges and the second row of galleries will be devoted to the filling of mail orders.

Offices, schoolrooms, innkeepers, etc., will be located on the third row of galleries, while the first row of galleries, also the basement and spaces under the sidewalks, will be used for

the storing of goods. Thus it is seen that the entire building will be devoted to the business of the house.

Everything about the building, from the broad foundations up, will be of the most substantial character, and the fittings will include elevators, electrical appliances and all other modern conveniences that will tend to the quick and satisfactory dispatch of business. The counters and shelvings will be finished in ash, and it is expected, with a ceiling 65 feet high and windows on all sides, that the light will be of the finest character for the display of goods.

## WHEN YOU BUY, — BUY — THE BEST! — THE — **H. H. H.** Horse Liniment

Is certainly the best preparation of its kind in the market. Ranchers, Stock Raisers and Horse Owners of every description will tell you that it does good work every time.

Messrs. H. H. Moore & Sons, Stockton, Cal.—GENTLEMEN: In answer to your inquiry, would state that I used your H. H. H. Liniment on my Holland prize-winning cow, "Lena Menlo," for a wrenched shoulder, and it relieved her very much. She calved the next day, and while still suffering from the sprain gave the largest authenticated quantity of milk ever given on this coast (10½ gallons per day), showing conclusively the great relief received from your remedy. I consider it a necessity in my stables, and when away from home feel perfectly safe, as inexperienced men can do no harm with it, as they can with the more powerful blisters. Respectfully yours,  
Breeder of Registered Holsteins and Berkshires.  
Menlo Park, Cal., January 22d, 1889.  
FRANK H. BURKE.

MANUFACTURED BY

**H. H. MOORE & SONS,**  
THE DRUGGISTS,  
248 MAIN STREET, STOCKTON, CAL.

## IMPORTANT! COOPER'S SHEEP DIP.

SHOEBERT, BEALE & CO.  
WHOLESALE AGENTS.



REDUCTION IN PRICE  
From \$20 to \$16 a case, owing to lower duty under McKinley Tariff Bill.

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## Little's Chemical Fluid Non-Poisonous SHEEP DIP.



BEWARE OF CHEAP IMITATIONS.  
One gallon, mixed with 60 gallons of cold water, will dip thoroughly 180 sheep, at a cost of one cent each. Easily applied; a nourisher of wool; a certain cure for SCAB. Also

**Little's Patent Powder Dip.**

Mixes instantly with water. Prevents the fly from striking. In a two-pound package there is sufficient to dip 20 sheep, and in a seven-pound package there is sufficient to dip 100 sheep.

**CATTON, BELL & CO.,**

(Successors to FALKNER, BELL & CO.),  
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## "P. & B." PATENT IDEAL ROOFING & PRESERVATIVE COMPOUND.

Cheapest, Most Durable and Fire-Resisting Roofing in the market.

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Water-Proof and Odorless. No Deader than Common Sheathing.

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TRACTION ENGINES,

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Machinery of all kinds furnished at shortest notice.

## Heald's Patent Wine-making Machinery,

Including Grape Crushers and Stemmers, Elevators, Wine Presses and Pumps, and all appliances used in Wine Cellars. Irrigating and Drainage Pumps. Heald's Patent Engine Governor, Etc.

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BETTER THAN CLEANING A MUDDY TAIL. ALL Polished Metal. Samples, 25 cents. DES MOINES NOVELTY CO., 127 Fourth St., Des Moines, Iowa. Mention this paper.

We can save you Fifty Dollars when you Build. See?

A complete set of Plans to build from, simply state about price of dwelling desired, 25 cts in stamps. Our book "Beautiful Homes," 25 cts. Our monthly book "The National Builder," 25 cts. Address

The National Builder, Adams Exp. Bldg., Chicago, Ill.



# CALIFORNIA'S TRIUMPH!

A COMBINED HARVESTER  
— FOR —  
Horse Power or Traction Engine.

AWARDED FIRST PREMIUM  
— AT —  
California State Fair, 1890.



## Daniel Best's New Steam Harvester.

SHOWN AS AT WORK IN THE FIELD.

Improved for season of 1891 with all latest improvements, including Best's Peerless Grain Cleaner.

All sizes made to order, from 14 to 40 feet.

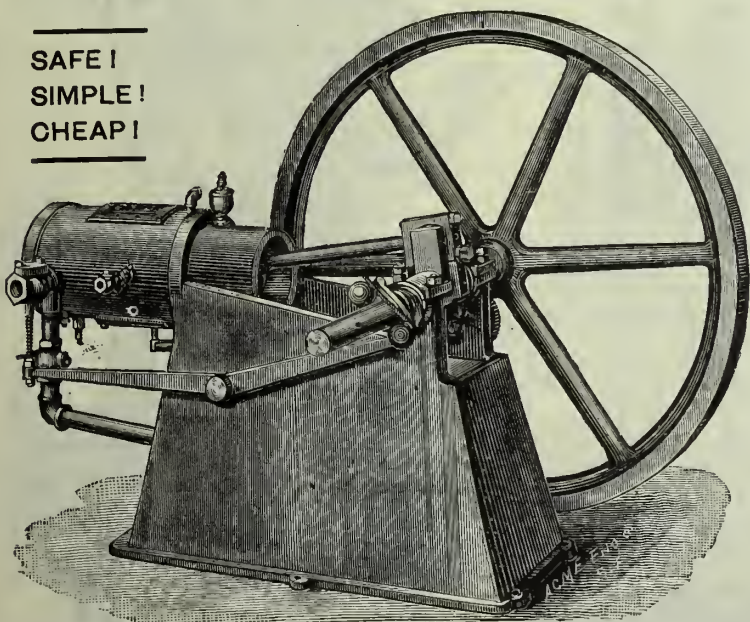
As a Steam Traction Harvester, Straw, Wood or Coal can be used for fuel.

These Steam and Horse Power Combined Harvesters were run successfully all last harvest, giving entire satisfaction in all ways in grain in every condition.

SEND FOR NEW CIRCULAR. For further information, prices, etc., address

DANIEL BEST, San Leandro, Cal.

SAFE!  
SIMPLE!  
CHEAP!



## REGAN VAPOR ENGINE.

NO BOILER. FIRE. EXPLOSION. STEAM, ASHES OR ENGINEER.

Started Instantly Without Even a Match. Will Run on Natural or Manufactured Gas or Gasoline. The Moment Engine Ceases to Run, all Expense Stops.

Upright and Horizontal, Stationary and Marine Engines from 3-4 Horse Power, Upward.

Our Engines are especially adapted for Pumping and Irrigating and Spraying Fruit Trees; in fact, for any use where power is required.

OVER 400 IN USE.

POPE & TALBOT, LUMBER, Office, 204 California Street, }  
SAN FRANCISCO, Feb. 25th, 1890. }

REGAN VAPOR ENGINE CO.—Gentlemen: The 4 H. P. Vapor Engine I bought of you last May has been in constant use ever since, and has given me entire satisfaction. I have found the engine to be all that you claimed for it, and more too. You can use my name for reference if you so desire. I am, yours truly,  
H. TALBOT.

We Carry Thos. Kane & Co's Famous Racine Launches, fitted with our New Compound Engines.

Send for Circular.

REGAN VAPOR ENGINE CO.,

221-223 First Street, San Francisco, Cal.

## Cheaper Than Windmills for Farmers!

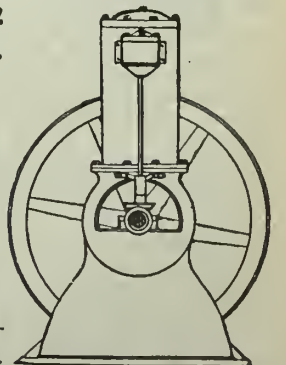
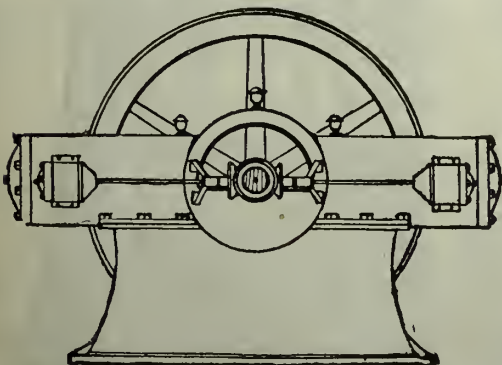
Our Perfected "Safety" Engines Cost to Run only 1-8 Gallon of Gasoline per Horsepower per Hour. No Boiler, Fire, Smoke, Steam, Ashes or Heat. No Engineer, No License, No Danger. Single and Double Acting. 1/4 H.P. to 20 H.P.

GENTLEMEN—The 2-H. P. Engine received and set up yesterday. We attached it to part of the machinery in my shop, and it ran my Drill Press, a small Lathe, a large 24-inch by 14-foot Lathe, and a set of Emery Wheels, all of which it handled easily, to our great surprise. Yours very respectfully,  
J. B. HENDERSON.

GENTLEMEN—I am satisfied, after running for over a month my Bean Cleaner, etc., with the 4-H. P. Engine you sent me, that it is much the best Gas Engine I have seen. The electrodes are certainly superior to all others; also your safety rotary slide valve, which is the personification of simplicity, positiveness and durability; I am satisfied it will develop much more power than we have need for. I also want a 2 or 1-H. P. for my wife and daughters to use about the house; we have a rotary clothes washer, can also do the churning, etc. I do not know of any better recommendation than to order a second engine. Respectfully yours,  
P. C. HIGGINS

NOTE.—Both of these Engines were shipped to the parties named, and were set up by them solely by the diagram and printed directions we sent them.

Pumping Plants, Yachts & Launches, Street Cars, Fire Engines, Water Works, Etc. **ELECTRIC VAPOR ENGINE CO.** Complete Plants of all kinds, Stationary or Mounted on Wheels. 218 California St., San Francisco. U. S. AND FOREIGN PATENTS.



**WHALE OIL SOAP**  
EIGHTY PER CENT DRY.  
**ARCTIC OIL WORKS,**  
Manufacturers of  
SPERM, WHALE, ELEPHANT AND FISH OILS,  
MINERAL, LUBRICATING AND ILLUMINATING OILS,  
LARD AND TALLOW OILS.  
OFFICE, 28 CALIFORNIA STREET, SAN FRANCISCO.







FIG. 1.—MISSSES' DRESS.

## Fashion Notes.

## Misses' Dress.

FIG. 1.—This illustrates a Misses' Dress. In the present instance the dress is pictured developed in sapphire-blue cashmere and velvet and white China silk. The full, round skirt falls in natural folds from gathers at the top. The lower edge which is deeply hemmed, is daintily trimmed with a broad band of velvet surmounted by an effective heading formed of silver braid; and the upper edge is joined to the body and bodice, a row of the braid concealing the joining. The full fronts and backs of the body are arranged over a smooth lining that is closely adjusted by the customary darts and seams and closed at the back with button-holes and buttons. The full portions are gathered at the neck, and the fulness below is becomingly drawn toward the center and regulated by gathers at the lower edge. The full shirtsleeves rise with a pronounced curve over the shoulders, and the wrists are finished with wristbands. The standing collar is concealed beneath a full, box-plaited ruching of China silk. The shapely bodice is slightly pointed at the top at the center of the front and back and is shaped to fit the figure accurately; the center seam is opened some distance from the top and the flaring edges connected by silk laces drawn through eyelets. A slash made at each side of the center seam is similarly laced, and the closing is made at the back in a corresponding manner.

Many dainty combinations of colors and textures may be effected in the development of a dress of this kind. The mode is extremely picturesque and will make up with good effect in a single material. Garnitures of lace, embroidery, rows of velvet or grosgrain ribbon, metallic or soutache braid, or feather-stitching, may be added.

The stylish felt hat is handsomely trimmed with ostrich tips and loops of ribbon.

## Boys' Suit.

FIG. 2.—This consists of a Boys' Shirt and Trousers. Striped and two shades of plain Jersey cloth are here united in the suit. The shirt is shaped by shoulder and underarm seams, and the front is cut away in V shape to accommodate a shield, which is permanently sewed at the right side, and



FIG. 2.—BOYS' SUIT.

fastened invisibly beneath the left side. The sailor collar falls in regulation style at the back, and its tapering ends extend to the end of the V, where a bow of ribbon is ornamentally applied. The sleeves have each but one seam, and the wrists are plainly completed.

The trousers extend a trifle below the knee, and are shaped by the customary seams along the inside and outside of the leg and the center of the front and back. They close with a fly, and pockets are inserted in the side seams.

Eider-down flannel, Jersey flannel, silk Jersey webbing and other elastic fabrics may be employed in developing the shirt, and for the trousers similar material or corkscrew, diagonal, serge, or any other plain or fancy suiting may be used. Machine-stitching or braid may be used for a completion, or a perfectly plain finish may be adopted.

The cap is of the darker Jersey cloth.

## Little Girls' Dress.

FIG. 3.—This illustrates a Little Girl's Dress. The dress is here portrayed made of China silk and velvet. The full round skirt is finished at the bottom with a deep

hem, and the top is drawn by shirrings, and joined to the fanciful body, which has a smooth front and backs of lining. The jacket fronts are cut in low, round outline at the top, and below the busts they flare prettily to reveal the full front, which is disposed at the top in a series of tucks of graduated depth. The backs are arranged in three tucks at each side of the closing, which is made at the center with buttons and button-holes; and sash-ties, the gathered ends of which are fastened at the under-arm seams, are prettily bowed at the back. The round collar is in two sections; it rolls prettily over the jacket fronts and is bordered with a unique arrangement of silver soutache braid and the front and lower edges of the jacket fronts are trimmed to correspond. The full sleeves are mounted upon smooth linings and rise well over the shoulders, and the rounding edges of the dainty cuffs are ornamented with soutache. At the lower edge of each cuff is a dainty frill of edging, and a ruching to match is at the neck.

Numerous effective combinations of fabrics may be developed by the mode, or, if preferred, one material may be used throughout, with stylish results.

## Ladies' Costume.

FIG. 4.—Portrays a front view of a costume made of Kursheedt's embroidered mousseline de soie flouncing. The foundation skirt, which is in the accepted four-gored style, is concealed beneath a drapery that is disposed with slight fulness at the front and sides, while at the back, stylish fan-plaits flare gradually to the edge, which is finished with a deep hem; and a small bustle may be worn, if desired.

The full fronts of the shapely basque are disposed at each side of the center in deep, overlapping plaits that flare becomingly upward from the point at the lower edge, and at each side of the plaits a smooth effect is obtained by a single bust dart taken up with the second dart in the lining front. The

mere, percale, etc., will develop attractively by the mode. Scotch gingham, cambric and other washable fabrics will make up with especially good results, and so will drapery nets, gauzes, India or China silk, Bengaline, etc. Lace or embroidered edging, velvet, ribbon, gimp, Persian bands, etc., may be applied for garniture.

**CARBONIC ACID IN FOGS.**—Experiments made by a professor of University College, Dundee, has shown the high percentage of carbonic acid in the atmosphere during fogs. At a time when the fog was densest, eight volumes in 10 000, or more than double the normal amount for the particular locality, was found. In London and Manchester the percentage is much higher. The circumstance thus noted is readily accounted for by the fact that the dispersion of the products of combustion and animal respiration is hindered by the stagnation of the air during the continuance of a fog.

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FIG. 4.—LADIES' COSTUME.

FOR INFORMATION, our readers are referred to H. A. Deming, No. 124 Post St., S. F., a leading and well-established house, for paper patterns of plates illustrated in our present issue.



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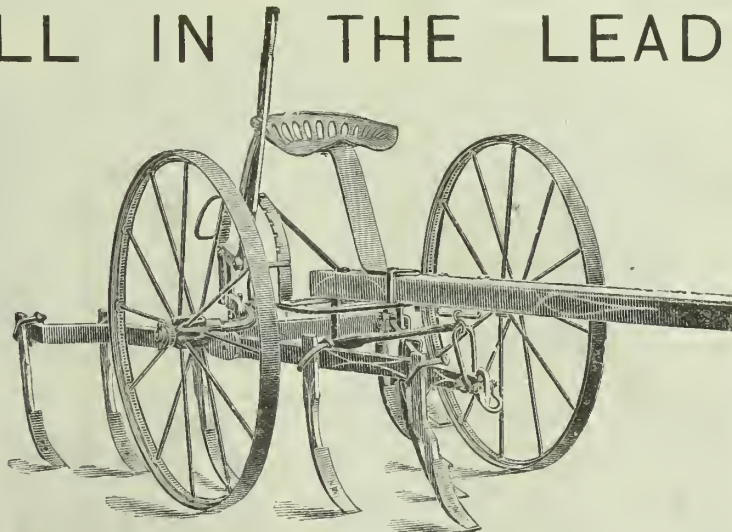
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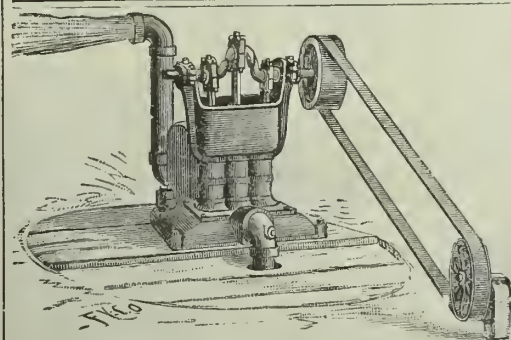
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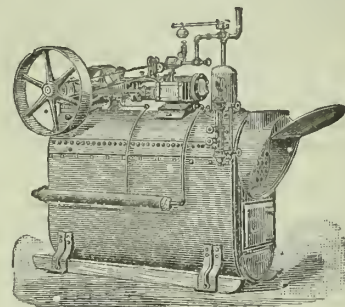
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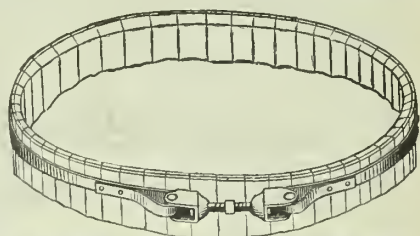
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## THE DAIRY.

## Teosinte as a Forage Plant.

EDITORS PRESS:—Over a year ago I stated in the PRESS that I had found Teosinte (*Reana luxurians*, or as Dr. Vasey has it, *Euchlana luxurians*), a very productive forage plant. In a footnote to that communication, you said that it had been grown in some parts of California with little satisfaction. This induced me to try it again last year under special care. My experiment was made 7000 feet above sea level, on good, well-fertilized, irrigated soil, so situated, however, in a narrow ravine that a steep hill on the west shut off the sun for two hours every afternoon even of the longest days.

On the 11th of April, I sowed four seeds six inches apart. During May and June, the weather was cold for the season and the plants seemed only to spread out horizontally. When hot days came with July, the stalks began to grow erect very rapidly. As a cold wind about the middle of September stopped its growth, I cut the crop, with the following aggregate results—small fractions being dropped:

No. of Stalks.	Length. feet.	inches.	Total Length. feet.	inches.
15	8	3	123	9
38	7	5	281	10
33	6	6	247	00
7	5	3	36	9
16	4	6	72	00
8	3	6	28	00
31	3	0	93	00
Total.....			882	4

I measured the extreme length of each fifth stalk as it came to hand, and was careful to make a just average. It will be noticed that each seed produced 38½ stalks, the total length of which was 220 feet 7 inches. In other words, if each plant had sent only one stalk skyward, the top of that stalk would have been the number of feet stated above the earth.

The 153 stalks accurately weighed came to 68½ pounds, and after they had been kept in a shed for two months their weight was 15 pounds. This great reduction shows how full of juice the forage is when green, and how unlikely it is to succeed without being irrigated. The ground occupied by the four plants was about a square yard, but as the tops—though tied up—hung over adjoining plots, I will allow two square yards as the land made use of. The green fodder at this rating came to 82 tons 1770 pounds, and the hay to 18 tons 300 pounds to the acre.

If there is any known grass or clover, which with generous culture will yield more choice food for stock than the plant named I have not heard of it.

Granting that my test was on a very small scale, the fact still remains that the yield was great.

If the weather had been as favorable as that of the year before, I think the product would have been considerably increased. I believe, too, that if the seeds had been put farther apart, the return would have been better.

In a damp, cool climate Teosinte will fail, but in hot, dry localities, where the soil is deep and rich, it is sure to do well.

JOHN DARE EMERSLEY,  
Dos Cabezas, Cochise County, Arizona.

## Silos in California.

EDITORS PRESS:—Will you please ask through the columns of your valuable paper if any one on this coast has used a silo; and if so, does he think it a success. Will ensilage keep as well here as in the East? Also, if they have been used. Does stock thrive on ensilage?

I am greatly interested in silage and want to use it largely in the future if it has proven itself. I should like to hear from several that have used them. We depend more and more each year on the RURAL PRESS. Find it just fills the place. "BAY VIEW,"  
Florence, Cal.

[We have had a number of letters describing success with silos in California, and we trust that we shall hear more in this line, for there is deep interest in it. We regret deeply to record the death of Isaac R. Jewell of Petaluma last week. He was, we believe, the first to report success with the silo in this State.—EDS. PRESS]

## An Acknowledgment.

EDITORS PRESS:—Permit me, through your columns, to express my obligations to those who have so kindly responded to my call and offered to act as correspondents from their respective sections. I trust that, with the help so freely offered, I will be able to do justice to the agricultural and horticultural interests of the State. I shall be glad to have, besides the special information asked for in the circulars, such interesting facts as may come to their notice under the head of general remarks. The resources and industries of this State are so manifold and varied, and so different from most of the Eastern States, that they well deserve particular attention.

GEORGE HUMANN,  
Statistical Agent, Dept. of Agriculture,  
Napa, Cal.

## Sespe River and Vicinity.

EDITORS PRESS:—This part of Ventura county is settling up and improving with a rapidity that would seem to indicate all absence of the pernicious boom, now, and in the past. I have been here but two months, but in that time I have seen more signs of substantial improvement among the farmers and fruit-growers than in any place I have visited in years. Old ground is being plowed; new ground being prepared; oranges and lemons, figs and grapes and prunes being set; barley and potatoes being put in; plowing for corn and other crops, in all directions. Even the town site of Sespe, in the absence of houses, is to be utilized for corn. This is a prairie country, we can see houses and orchards and barley fields in various directions, for many miles over the plains of the Santa Clara river. We were up Grand Avenue (this name may sound a trifle grandiloquent just now, but from the pepper trees, the walnuts, the eucalyptus, etc. on the Avenue; the orange orchards, the prune orchards, the grape, fig, lemon, and apricot adjacent, it will not be long before the name is quite appropriate) a few miles the other day. This Avenue is a road up the Sespe river, and we were surprised to see the improvements going on. Every one has enough to do; every one is busy.

There is abundance of water for irrigation, the heat of soil, surface nearly level, orchards and grain fields look superb. We stopped to purchase a few onions out of a four-acre onion field, and saw other onion patches still larger. We went to buy some strawberry plants, but the owner had just plowed up large quantities of them, some with ripe berries on them, and would take no pay. Here was a beautiful schoolhouse, and still farther up, the oil works. The oil is piped to Santa Paula in a two-inch pipe, which is now being changed for one of four inches diameter. There has been grading done from some miles up, to take a large volume of water from the Sespe, to irrigate many thousands of acres of the plain below; when it will be completed I do not know. Feed in the mountains is abundant and cheap. Most farmers have good teams, plenty of horses and other stock and good implements to work with. I saw, the other day—in fact used it myself a short time on my own land—the best harrow I ever used. It is called Brown's self-cleaning, rotary harrow. It covers six feet (for larger work, two or three can be placed side by side), and once going over the ground puts nearly every grain of barley under the ground, leaving all trash behind and the soil smooth and fine as a garden bed. There are three horizontal wheels, plentifully supplied with teeth—50 in all—on a pivot not quite perpendicular, so there is a slight dip on one side of the wheels, which causes the rotary motion, and the teeth are constantly moving in every direction. It would doubtless be fine for orchards and vineyards, as the wheels would strike with little force against trees and vines. Mr. F. A. Sprague has the right for several of the southern counties of the State. The railroad company claiming every alternate section is quite a detriment to this vicinity, as settlers are unwilling to put valuable improvements on lands the company claims, lest they should have to pay for them twice over. It is to be hoped that this vexed question, which has been in abeyance, I believe, 14 years, will now soon be settled. Large quantities of a beautiful brown stone are being hauled down the Sespe and shipped to Los Angeles for building. This is an excellent hese region—best and whitest honey. There are two bee ranches in sight, besides mine. Mr. McIntyre, a man known, I believe, by Eastern beekeepers, is located on the Sespe. I think he has corresponded with the RURAL PRESS. He is, or has been, inspector of bees for Ventura county. The air is drier, being 20 miles back from the ocean, and is doubtless better for some diseases—as throat and lung troubles—than the immediate coast, as would seem to be the case from my own experience. S. P. SNOW.

POISONOUS WALL PAPER—Since the poisoning in the house of the Mayor of Boston has become known, it is said that experts are making it a business to test the wall paper in the houses of nervous people in that city.



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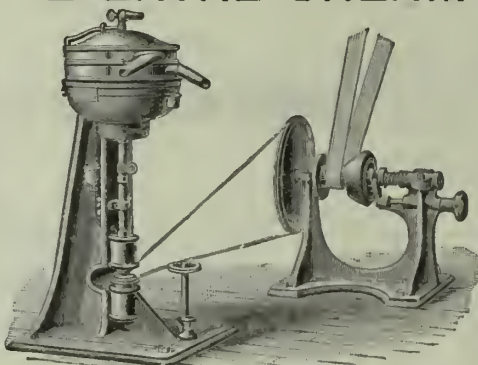
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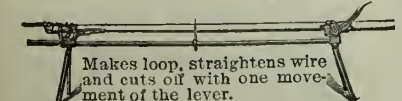
Song Collections. Song Classics, Vol. 1 [50 songs. Choice Sacred Solos [50 cts.] 34 songs.

Piano Collections. Pop'l'r Piano Collect'n [50 cts.] 27 pcs. Popular Dance Collect'n [50 cts.] 66 pcs.

Mailed postpaid on receipt of above prices.

OLIVER DITSON COMPANY. BOSTON. C. H. DITSON & CO., 867 Broadway, New York City.

U. S. BALE-TIE MAKER.



Makes loop, straightens wire and cuts off with one movement of the lever.

Lighting Lifting Jack, for hay presses, wagons, etc. All steel and very powerful.

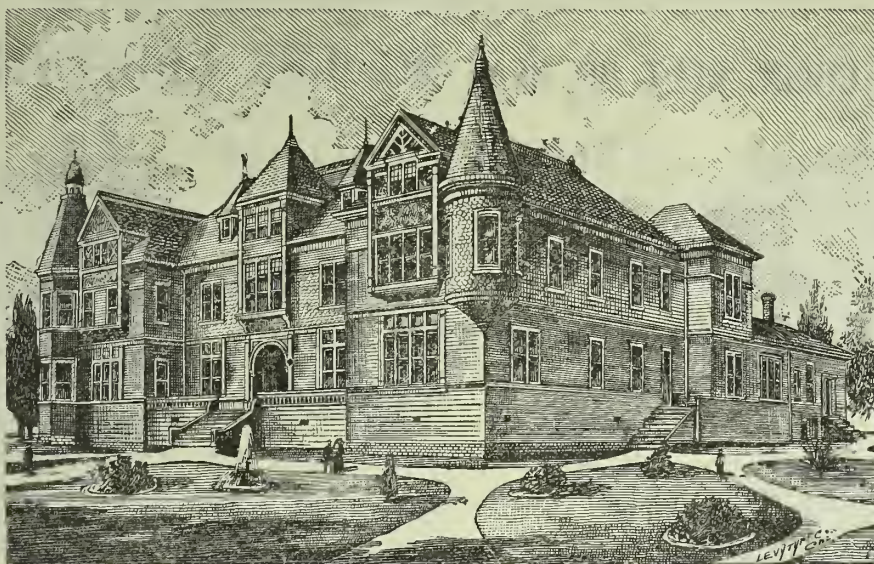
Self-adjusting Wire Reel. Best in the world. Takes any size coil.

Also Hay Presses and Hay Press Supplies of all kinds. Weighing attachments and repairs for any press. Send for prices and catalogue. U. S. HAY PRESS SUPPLY CO., KANSAS CITY, MO.

PARTIES DESIRING, IN GOOD FAITH, to purchase from the U. S. Quarter-Sections of Sugar Pine Timber Land, should write or apply for information to STORY & CUTTING, Surveyors and Land Agents, Rooms 26 and 27, No. 420 California St., San Francisco. Best of references furnished.

DEWEY & CO., PATENT AGENTS, 220 Market St., San Francisco. Elevator, 12 Front St

FABIOLA HOSPITAL OAKLAND, CALIFORNIA.



THE FABIOLA HOSPITAL is healthfully and pleasantly located on high ground in the suburbs of Oakland, accessible from every part of the city, the street cars passing the door.

THE APPOINTMENTS of the institution are of the best class; the building thoroughly warmed with Harvey's system of hot water heating; rooms large and sunny; neatly furnished with all the comforts of a private home for the sick and the convenience of a first-class general hospital. Sewerage perfect.

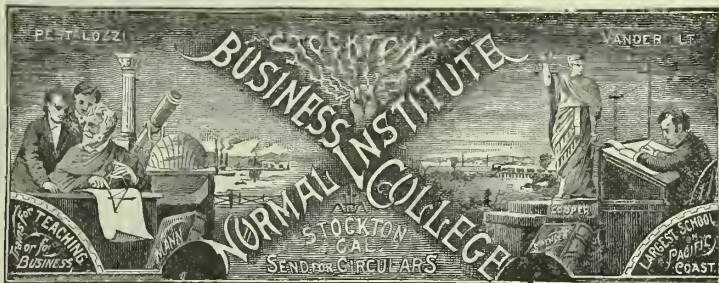
WELL TRAINED NURSES are in attendance, and patients will receive all nursing and care required for any ordinary case without extra charge; but patients in private rooms, requiring a special nurse in constant attendance, will be charged extra.

MATERNITY CASES are given special care, and large sunny rooms are set apart exclusively for such use, with most skilled physicians and careful nurses.

BOTH HOMEOPATHIC AND ALLOPATHIC PHYSICIANS are in regular attendance at the hospital, and patients may choose the school of medicine they prefer.

Should patients desire to employ a physician other than those on the hospital staff, they are allowed to do so at their own expense.

Address S. J. FENTON, Resident Physician, Fabiola Hospital, Oakland, California. Telephone No. 943



THE LEADING FEATURE OF THE SCHOOL IS ITS HOME.

TUITION ONE YEAR (52 WEEKS).....\$75 00  
TUITION SIX MONTHS (24 WEEKS).....50 00  
EXCELLENT BOARD PER MONTH (4 WEEKS).....10 00

Course Thorough, Rates Lowest, Instruction the Best, and School the Most Reliable. Address W. C. RAMSEY.

BEET SUGAR FACTORIES

E. H. DYER & CO.,

BUILDERS OF

Beet Sugar Factories and Refineries,

ALVARADO, CAL.

ERECTING AND OPERATING COMPLETE PLANTS A SPECIALTY.

Having arranged with a leading American firm for the manufacture of our machinery, we are prepared to build complete plants and furnish skilled labor to operate them when desired.

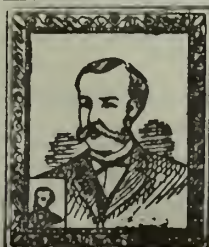
We are the builders of the Alvarado, Cal., Sugar Works, and the Utah Sugar Co.'s Works, now in course of construction. We guarantee our work. Correspondence solicited.



The Celebrated Chapman-Climax Spray Pump

Is still ahead of all competitors, and is the most popular spraying machine in the market. THE CLIMAX NO. 1, represented by this cut, is the cheapest reliable sprayer made, and its economy in the amount of wash required for a given amount of work will save its cost in a few days' operation. IMPROVED CLIMAX NO. 2 is a large double pump, made entirely of brass, and equipped complete with two lines of hose, four improved Pacific Cyclone Spray Tips, extensions, shut-off valves, etc. Guaranteed the safest, most satisfactory, and, in the end, the cheapest large spraying outfit in existence. Correspondence solicited. Address all communications to

R. S. CHAPMAN. 18 California St., San Francisco, Cal.



SPECIAL OFFER! CRAYON PORTRAITS

Wishing to introduce our And at the same time to extend our business and make new customers, we have decided to make this SPECIAL OFFER: Bring or send a picture of yourself, any member of your family, or friend, living or dead, and we will make you a LIFE-SIZE PORTRAIT FREE OF CHARGE, provided you will have it suitably framed by us, exhibit it to your friends as a sample of our work, and use your influence in securing us future orders. Place name and address on back of picture and it will be returned in perfect order. We make any change in picture you wish, not interfering with likeness. References, Wells, Fargo & Co's Express or any Bank in Sacramento.

MELVIN'S ART GALLERY, 718 K St., Sacramento.

FOR SALE!

PINOLITO OLIVE RANCH!!!

FORTY-SIX ACRES OF HILL LAND

In the Town of Auburn, Placer Co.

Red soil, superimposed upon upturned, friable, decomposing slate, yielding iron and alumina, thus furnishing a soil which, as Prof. Hilgard said after his analysis, will retain moisture, will not require irrigation, and will not allow the vegetable mold to leech away; thus suited to the growth of fruit trees, especially the olive, as has been demonstrated both by the remarkable growth of the tree and the yield and the quality of oil.

It is situated only 15 minutes walk from Auburn Station—the C. P. R. R. passes along one side—and is a less distance from the Court House. Thirty a res improved and planted to olives, set at long distances for permanent growth, and other fruits planted between the rows for temporary profits, mostly peaches of three best varieties, ripening in succession; prunes, mostly Petite; plums of several varieties, as Kelsey, Japan, Shropshire Damson, etc.; figs of several best varieties; a few apples, nectarines, blackberries, etc. Two acres of table and raisin grapes, never irrigated, the vines remarkably vigorous and in full bearing. The trees, especially the 1500 olive, have all been planted with regard to permanency. About one-half of them have an orchard growth of seven years; fruited last year 300 pounds, this year nearly one ton. They are mostly Mission and Picholine, with a few trees of other choice varieties. Two crops of the olives have been pressed. The yield has been, for the first press, 14 per cent of very clear delicious table oil, and four per cent from the second press—the Picholine yielding this, of a peculiarly clear, nutty oil.

There is on the ranch a few acres of grain sown for hay; two acres of well-set alfalfa, below the Auburn ditch, which crosses one corner of the property; also a small house of four rooms and a kitchen; a well of good water; a small barn; a strong, permanent spring of soft, cold water, which wells up through the slate; a two-inch iron pipe connects the spring with an iron-bound 20 000-gallon tank, situated on a beautiful pine clad hill 40 feet above the spring, a point which overlooks the town and gives very charming distant views, and is one of the most lovely sites for a residence to be found. The water is pumped to the tank by a duplex pump; the power, a four-horse steam engine, which furnishes power sufficient to pump, saw wood, run an olive crusher and do all needed shop work.

The land is all suited to fruit, excepting along a rocky ridge, which furnishes three very desirable residence sites, and the olive, set promiscuously, thrives finely among the rocks. The property can be conveniently divided along a sag which separates two of the high knobs, and water from the spring can be pumped to each of them.

This desirable property is now offered for sale for less than the improvements cost. The land is fenced, the title good and unencumbered. It is connected by a roadway, which is one of the improvements made, with one of the principal streets of Auburn.

The sale will convey the entire plant, furniture in the house, all utensils, etc. If sold before April 1st the sale will include the coming crop. If later, the crop will be reserved, unless otherwise by special agreement. If desired, one-half the purchase money can remain five years, secured by mortgage at eight per cent. For price and any further information desired, address

A. H. AGARD,

No. 1259 Alice Street, - - Oakland, Cal

Fresno and Merced County Lands

TO RENT AND FOR SALE.

75,000 ACRES OF WHEAT AND SUGAR BEET LAND

In the above counties to rent for a term of years;

—ALSO—

100,000 ACRES OF FINE RAISIN, FRUIT, ALFALFA AND SUGAR BEET LAND.

With water for irrigation, for sale in tracts of from 20 acres to large tracts, suitable for colony purposes. For particulars apply to

E. B. PERRIN,

402 Kearny Street, - - - San Francisco.



ASK YOUR GROCER FOR IT

HORTON & KENNEDY still continue to supply the famous

ENTERPRISE WINDMILLS.

These Windmills have been advertised in and known by the readers of the PACIFIC RURAL PRESS for over 20 years. The Best is the Cheapest. Write for circulars and prices.

HORTON & KENNEDY,

Livermore, Alameda Co., Cal.

San Francisco Agency, JAMES LINFORTH, 87 Market St.

BUTTER COLOR

Trial package of OSGOOD'S Butter Color Powder for 4 cents in stamps. 25 cent package by mail on receipt of price. Price in bulk to Creameries. Ask your grocer for it. H. M. & J. D. LONG, Williamsville, Erie Co., N. Y. Mention this paper.







List of U. S. Patents for Pacific Coast Inventors.

Reported by Dewey & Co., Pioneer Patent Solicitors for Pacific Coast.

- FOR WEEK ENDING MARCH 24, 1891.
- 449,026.—PORTABLE ELEVATOR—N. Anderson, Marysville, Cal.
- 449,064.—MANUFACTURING BORAX—N. M. Bell, S. F.
- 449,033.—SWINGING HOSE REEL—W. F. Bowers, S. F.
- 448,846.—FRUIT DRIER.—A. Conklin, Grants Pass Or.
- 448,764.—LATHE—E. W. Jones, Portland Or.
- 448,975.—FLOWER HOLDER—Jas. Martin, Temescal, Cal.
- 449,083.—FLUSH TANK—S. W. Miller, Pasadena, Cal.
- 448,993.—ILLUMINATING PANEL IN CONCRETE FLOORS—E. L. Ransome, S. F.
- 448,989.—GAS ENGINE—E. Narjot, S. F.
- 449,017.—SWITCH STAND—J. H. Wallace, S. F.
- The following brief list by telegraph, for Mar. 24, will appear more complete on receipt of mail devices:

California—Mark Anthony, Berkeley, assignor to the Golden Gate Faucet Company, S. F., faucet for barrels; Edwin Brysch, S. F., electro-therapeutic syringe; Millard F. Brown and T. E. Salth, S. F., kitchen cabinet; Leonard E. Clawson, S. F., hood for fireplaces; Joseph Davis, S. F., newspaper cover; Edwin Falkingham, S. F., card shuffler; James W. Harris and T. G. Thomas, S. F., sectional rope sheave; Peter H. Jackson, S. F., construction of buildings; L. J. Johnson, Petaluma, farm gate; Wm. Lacy, Jr., Los Angeles, irrigating hydrant; Frank B. Morse, Murphys, ore concentrator; James and W. Patterson, Stockton, assignor to the Benicia Agricultural Works, Benicia, gang plow; Geo. W. Phiney, Guerneville, plow; Wm. Teneyck, Oakland, self-closing gas-burner. Oregon—Edward W. Curtis, Portland, steam engine; Henry Dufresne, Portland, shade adjuster; Jonas D. Henry and W. E. Wood, Portland, feed-mill; Edward E. Kingsley, Portland, device for moistening the gum on envelopes.

NOTE.—Copies of U. S. and Foreign patents furnished by Dewey & Co., in the shortest time possible (by mail for telegraphic order). American and Foreign patents obtained, and general patent business for Pacific Coast inventors transacted with perfect security, at reasonable rates, and in the shortest possible time.

Our Fruit Book in Southern California.

The sale of our book "California Fruits and How to Grow Them" has been very large in Southern California, and it seems to meet the needs of growers in that region. A special effort was made by the author to make the book as broad as the State, and to reflect the best practice in all regions, and it is very gratifying to know that this has been accomplished at least to a degree which satisfies purchasers of the book. Of many good words which we have received from the south end of the State, the following which comes this week is unique as well as emphatic:

I think Wickson's book on California Fruits of great value, and if our Legislature would buy an edition of 10,000 copies and give one to every person who cultivates too fruit trees, they would benefit the State more than by all the "junketing" that ever has or ever will be done.—WM. PORTER, *Joan-hoe, Los Angeles, Cal.*

Large 8vo, 575 pages. Price, \$3, postpaid. Dewey & Co., publishers PACIFIC RURAL PRESS, 220 Market St., San Francisco, Cal.

BERKSHIRE SALES.—Phil M. Springer, Secretary American Berkshire Association, Springfield, Ill., sends the following transfers of recorded Berkshire: Robin Hood, 25,395 and Lady Rhyford 25,396, by John Craig, Macleay, Oregon to Chas. Miller, Jefferson, Oregon; Earl Fame 25,828, by John Craig to H. W. Cottle & Son, Salem, Oregon; Stanley 25,661, by C. A. Coffman, Rilvera, Cal. to J. E. Pleasant, Santa Ana, Cal.; Duke of Eden 25,769, by Henry P. Mohr, Mount Eden, Cal. to Samuel D. Prether, Montague, Cal.; First Choice of Eden 25,771, by Henry P. Mohr to Daniel Culp, Hayward, Cal.; Arizona Belle 25,824 and Arizona Queen 25,825, by B. F. Dorsey & Sons; Perry, Ill. to Harry Fulton, Flagstaff, Arizona, Amour II. 25,826, by H. W. Cottle, Salem, Oregon to H. C. Dunn, Corvallis, Oregon; Slitting Bull 25,827, by H. W. Cottle to U. S. Nichols, Riddles, Oregon; Preston's Royal 25,843 and Pocahontas 25,844, by Alex. A. Arnold, Galesville, Wis. to C. C. Willis, Plains, Montana.

Mother Bickerdyke Still Active.

NO. 1015 CLAY ST, OAKLAND, CAL.,  
March 30, 1891.

EDITORS PRESS:—Recently many inquiries are made about the health and whereabouts of Mother Bickerdyke. She is with her dutiful son James R. Bickerdyke at his home in Russell, Kansas. This grand woman is not only well, but still happy in directing her efforts in behalf of her "soldier boys"—all (as she claims) who wore the blue and fought for the starry flag in its days of peril.

MRS. J. G. LEMMON.

THE MODERN CEMETERY.—The first (March) number of this magazine, for the dissemination of modern ideas in cemetery management, contains the following: "Modern Cemeteries" from the writings of Adolph Strauch, the father of the lawn plan in cemeteries. The first of a series of articles on "Preliminary Work in Laying Out Cemeteries," "Cemeteries from a Sanitary Point of View," "Suggestions to Cemetery Lot Owners," "Wearing Hats at Funerals," etc. Published monthly at \$1 a year. R. J. Haight, publisher, 243 State street, Chicago.

The Leading Sanitarium.

There is no question but that the Rural Retreat, situated within three miles of the beautiful and healthful town of St. Helena is now far in the lead of all health resorts on this coast in point of facilities for the treatment and cure of worn-out and sick people.

The system of baths (electric and nearly all other at present approved kinds) has never before been equaled in California.

Dr. W. P. Burke, who has had a large practice for some ten years in connection with this and a kindred institution at Napa City, has had an extensive experience and a reputation for success unequalled by but few practitioners on this coast. The success and popularity of his work and that of his capable and faithful assistants, seem still increasing.

The Retreat is some feet above the level of the sea, on the west slope of a well-shaded spur of Howell mountain. It overlooks a rarely beautiful portion of Napa valley and picturesquely bordering hills and mountains forming a most charming landscape view.

The main building and three-room hillside cottages afford accommodations for over 100 guests and patients.

A large boiler-house furnishes steam for heating baths and rooms. A commodious gymnasium and chapel are also among the substantial buildings adjoining the central edifice.

And yet another more commodious than the larger four-story center building is to be erected this spring to meet the steadily increasing patronage of this favorably conducted home of the afflicted.

The institution is carefully and conscientiously conducted by an incorporated association of Seventh Day Adventists, somewhat after the plan of that older institution of their brethren at Battle Creek, Michigan, the largest sanitarium ever successfully established in the United States.

John Fulton is Superintendent; Mrs. J. L. Ings, Matron. The Board of Trustees are Dr. W. P. Burke, W. A. Pratt, A. B. Attwood, R. A. Underwood, Jos. Laninger, Wm. Saunders, J. Fulton.

Calisthenic exercises, free to all inmates of the Retreat, are led by Mr. Hughes, accompanied with appropriate music, and add real pleasure and benefit to those who participate in the same.

Twenty acres of wood, vine, fruit, pasture and villa land is embraced in the home tract, besides 80 acres of still higher land, which affords an abundant supply of water.

The purest, clearest, and best of drinking water flows from the well-famed Crystal Springs close by the Retreat—the springs which gave the place its first start as a sanitarium.

Carriages meet all passenger trains except those arriving between sunset of Friday and Saturday.

This prosperous institution has been well filled every month in summer and winter during the past year, while many offers of guests have had to be declined.

Being acquainted personally with the merits of this sanitarium, we have no hesitancy in recommending it to the sick and afflicted.

Coronado Beach.

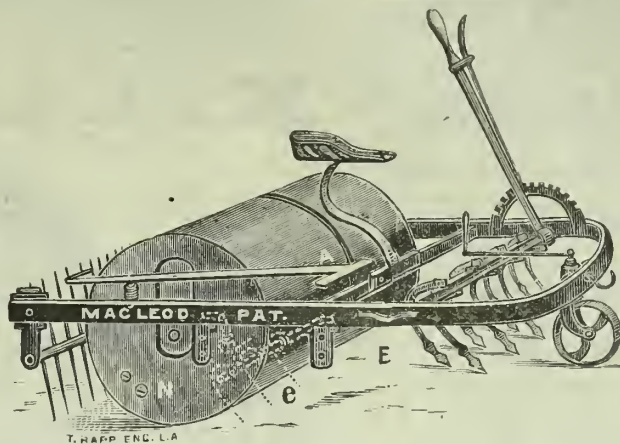
The southern part of the State appears to be entering on another boom, or at least a correspondent, who has returned from that section, says the cities and large towns are crowded with tourists and would-be farm or land buyers. He says that the Santa Fe Railroad Company's lines are crowded with passengers, particularly those in use between Los Angeles and Coronado. Many go to the latter place to enjoy the delightful scenery, which is a beautiful panorama of nature's loveliest pictures. The town of Coronado has claims to the beautiful. It is situated on the peninsula forming the bay of San Diego, and commands a view of the Pacific on one side and of San Diego on the opposite side of the bay. A few years ago, Coronado had not a human habitation. Now there are upon it many miles of streets and avenues lined with ornamental trees and shrubs, also fine parks and the best race-track in the State. Handsome villas and cosy cottages gladden the eye at every turn, and the sanitary arrangements are perfect. For the accommodation of visitors, whether transient or permanent, the extensive and elegant Hotel del Coronado, with its magnificent appointments, many luxurious comforts and beautiful surroundings stands unrivaled. The management leave nothing undone to add to the delights and pleasures of the hotel patrons. Probably one of the most attractive features is its inexhaustible supply of natural mineral-spring water, supplied free to all guests. The quality of the water can be better judged from the following statement, showing comparative analysis of the Bethesda Springs, Waukesha, and Coronado natural mineral water:

One pint contains 8750 grains.		
Solids in a Pint.		
Silica.....grs.	Waukesha.	Coronado.
Alumina.....	.118	.167
Iron (sesquioxide).....	.015	trace
Iron bicarbonate.....	.....	.011
Sodium chloride.....	.005	.....
Sodium sulphate.....	.145	1.977
Potassium sulphate.....	.003	.066
Calcium sulphate.....	.057	.086
Calcium carbonate.....	.....	.158
Magnesium carbonate.....	.....	.61
Magnesium bicarbonate.....	.....	.479
Lime bicarbonate.....	1.548	.....
Soda bicarbonate.....	2.128	.....
Soda phosphate.....	.157	.....
Organic matter.....	trace	.....
Total.....grs.	4.489	3.545

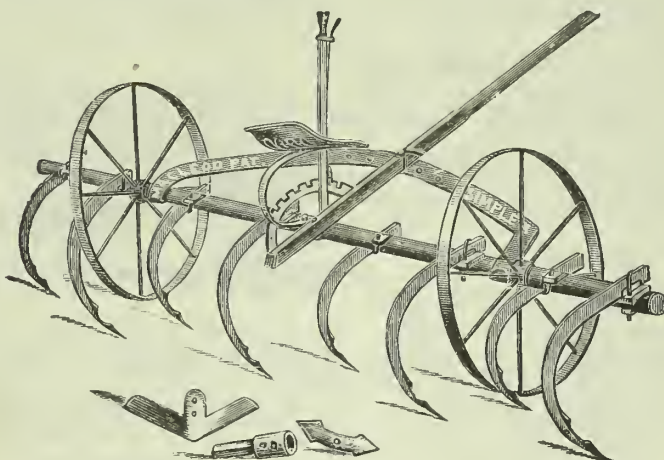
BACK FILES of the PACIFIC RURAL PRESS (unbound) can be had for \$2.50 per volume of six months. Per year (two volumes) \$4. Inserted in Dewey's patent binder 50 cents additional per volume.

BAROMETRIC PLANTS.—A recent little work on barometric plants published in France, gives, among other interesting facts, the following: If the stalks of clover and leguminous plants stand upright, there will be rain; if the leaf of the wood sorrel turns up, it is a sign of a

storm, as is also the closing of the convolvulus flower, the expanding of the lettuce flower, and the turning upside down of the flower of the pitcher plant; but if the last named stands erect it will be fine, as it will be if the flower or the sorrel opens.



MACLEOD'S "GIANT" CULTIVATOR, ROLLER AND RAKE.



MACLEOD'S "SIMPLEX" CULTIVATOR.

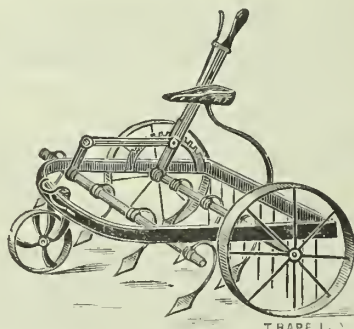
The Macleod Cultivators.

Mr. Malcolm Macleod, a mechanical engineer of Los Angeles, has recently brought out three styles of cultivators which have proved so well adapted to the work for which they were designed, that "we take pleasure in calling attention to them as important California inventions. The engravings used herewith show very clearly the design of the inventor and how many useful treatments of the soil he effects by his devices.

All of these styles may have Macleod's steering gear, by which a machine can be driven up-hill. They all have Macleod's adjustable weed-cutter, which cuts any depth by moving hand lever; also removable and adjustable cutters so that any number can be used any distance apart. All rubbish drops from the cutters by simply moving the hand lever. All these cultivators can be fitted with seeders or planters.

Of the three styles we introduce the following condensed descriptions from Mr. Macleod's circular:

The "Simplex," as shown in ont, is six feet wide and weighs but 160 pounds. Both ends outside the wheels can be taken off at will, thus making the six-foot machine into a five-foot or four-foot machine when desired for nursery or other purposes. But in the case of cultivating under trees, the extension can be put on sides only of the machine with spring tooth if desired. The clevis can be set to counterbalance this side draught. As in Macleod's other cultivators, all the teeth are removable and adjustable, so any number any distance apart can be used, and are self-cleaning. The wheels are shown with two cutters outside of them at each end, but the wheels may be readily placed anywhere on the shaft, and the cutters be placed in any position. The advantage of this novel



MACLEOD'S "UNIQUE" CULTIVATOR AND RAKE.

arrangement is apparent to every practical agriculturist.

The "Giant" cultivates rakes and rolls at one operation; also furrows, weeds and plants. It has extension arms to cultivate below trees, water-weighted rollers for all soils—field or orchard. The teeth are movable and adjustable; any number can be used and any distance apart. All cutters (or weed knives) cut any depth by moving hand lever.

The "Unique" is a one-horse machine, convertible into a two-horse cultivator and weed-cutter; also harrow and roller may be attached at rear. The teeth are movable and adjustable; any number can be used, any distance apart. All weed knives cut any depth by moving hand lever. It has extension arms to cultivate below trees; a three-foot machine may be made to cultivate or weed 42, 60 or 72 inches by operator.

All these implements can be seen at Macleod's seed and implement store, 245 South street, Los Angeles.

The Pacific Hospital,



Stockton, Cal.

Private Hospital  
For the Care and  
Treatment of  
Mental and Nervous  
Diseases.

The proprietary institution known as the Pacific Hospital is especially devoted to the care and treatment of mental and nervous diseases.

The buildings are capacious and comfortable, having been constructed for the accommodation of over 200 patients, and are pleasantly situated in the suburbs of Stockton, and are surrounded by attractive grounds of 40 acres in extent, with cultivated gardens and pleasant walks. Its advantages over public institutions in facility of admission and procuring extra accommodations, if required, are obvious. For terms and other particulars, apply to the Proprietor and Superintendent, DR. ASA CLARK, Stockton, Cal.

REFERENCES: Dr. L. C. Lane, Dr. W. H. Mays (late Superintendent of State Asylum at Stockton), Dr. Roht. A. A. McLean, Dr. I. S. Titus, Dr. R. H. Plummer, San Francisco; Dr. E. H. Woolsey, Surg. S. P. Co. and Oakland Hospital; Dr. W. S. Thorne, San Jose; Dr. G. A. Shurtleff (late Superintendent State Insane Asylum), Napa.



## Breeders' Directory.

Six lines or less in this Directory at 50c per line per month.

### HORSES AND CATTLE.

**PERRIN STANTON**, Sacramento, Cal., Importer and Breeder of Registered A. J. C. Jersey Cattle of the Best Strains. Stock for sale.

**HENRY HAMILTON**, Westley, Cal., breeder of Kentucky Jacks and Jennies, Draft Horses and Holstein Cattle. Jacks, Horses and Mules for sale.

**J. R. ROSE**, Lakeville, Sonoma Co., Cal., breeder of Thoroughbred Devons, Roadsters and Draft Horses.

**P. PETERSEN**, Sites, Colusa Co., Importer & Breeder of registered Shorthorn Cattle. Young bulls for sale.

**WILD FLOWER STOCK FARM**, Fresno Co. A. Hellhorn & Bro., Props., S. C. Breeders of thoroughbred strains and Cruikshank Shorthorns; also Registered Herefords; a fine lot of young bulls in each herd for sale.

**CHARLES E. HUMBERT**, Cloverdale, Cal., Importer and Breeder of Recorded Holstein-Friesian Cattle. Catalogues on application.

**PERCHERON HORSES**.—Pure bred horses and mares, all ages, and guaranteed breeders, for sale at my ranch near Lakeport, Lake Co., Cal. New catalogue now ready. Wm. B. Collier.

**WILLIAM NILES**, Los Angeles, Cal. Thoroughbred Registered Holstein and Jersey Cattle. None better.

**T. PHILLIPS**, Simi, Ventura Co., Cal. Pure Bred Percheron Horses for sale.

**OOTATE RANCH BREEDING FARM**, Page's Station, S. F. & N. P. R. R. P. O., Penn's Grove, Sonoma Co., Cal. Wilfred Page, Manager. Breeders of Short Horn Cattle, English Draft Horses, Spanish Merino Sheep and Berkshire Swine.

**PURE-BRED HOLSTEIN FRIESIAN Cattle** for sale. Bonnie Brae Cattle Co., Hollister, Cal.

**JOHN LYNCH**, Petaluma, breeder of thoroughbred Shorthorns. Young stock for sale.

**J. H. WHITE**, Lakeville, Sonoma Co., Cal., breeder of Registered Holstein Cattle.

**M. D. HOPKINS**, Petaluma, importer and dealer in Eastern registered Shorthorns, Red Polled Cattle, Holsteins, Devons and Shropshire Sheep.

**PETER SAXE & SON**, Lick House, San Francisco, Cal. Importers and Breeders, for past 18 years, of every variety of Cattle, Horses, Sheep and Hogs.

### POULTRY.

**J. R. OATLETT**, Pleasant Grove, Cal. B. Leghorn Eggs, 50c per 13.

**WOODSIDE POULTRY YARDS**, Danville, Contra Costa Co., Cal. Thoroughbred White, Black and Brown Leghorn, Langshan, Houdan, Wyandotte and Barred Plymouth Rock Eggs. Price \$1 to \$2 per setting. Send for circular.

**DELLWOOD POULTRY YARD**, Napa; Thoroughbred Fowls; Eggs \$2 per 13, \$5 per 39.

**MADISON H. CRITCHER**, Bonnie Doon, Santa Cruz Co., Cal. Thoroughbred Poultry. Settings, \$3.

**JOHN McFARLING**, 706 Twelfth St., Oakland, Cal., Importer and Breeder of Choice Poultry. Send for Circular. Thoroughbred Berkshire Pigs.

**E. HART**, Clements, San Joaquin Co., Cal. Breeding of Bronze Turkeys a specialty. Hens \$5, Toms \$8 each. Eggs, \$3 for 13; reduction on two or more sittings.

**IF YOU KEEP ANY KIND OF FOWLS**, Pet Stock, Dogs, &c., it will pay you to send your address at once to C. R. Harker, Santa Clara, Cal. You cannot afford not to do it. It will cost you but one cent and you will receive something worth ten times that.

**GALT POULTRY YARDS**, Galt, Sac. Co., Cal. Breed most popular varieties of thoroughbred fowls.

**CALIFORNIA POULTRY FARM**, Stockton, Cal.; send for illustrated and descriptive catalogue, free.

**R. G. HEAD**, Napa, Importer and Breeder of Land and Water Fowls. Send for New Catalogue.

**E. F. MUSSON**, San Leandro, Box 156. Fine stock.

**O. J. ALBEE**, Lawrence, Cal. Pure bred poultry.

### SHEEP AND GOATS.

**FRANK BULLARD**, Woodland, Cal., Importer and breeder of thoroughbred Spanish Merino Sheep. Premium hand of the State. Choice rams and ewes for sale.

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**B. H. CRANE**, Petaluma, Cal., breeder and Importer. South Down Sheep from Illinois and England for sale.

**KIRKPATRICK & WHITTAKER**, Knight's Ferry, Cal., breeders of Merino Sheep. Rams for sale.

**L. U. SHIPPEE**, Stockton, Cal., Importer and breeder of Spanish Merino Sheep, Durham Cattle, Jacks and Jennys & Berkshire Swine. High graded rams for sale.

**ANDREW SMITH**, Redwood City, Cal.; see adv't.

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**JOSEPH MELVIN**, Davisville, Cal., Breeder of Poland-China Hogs.

**WILLIAM NILES**, Los Angeles, Cal. Thoroughbred Poland-China and Berkshire Pigs. Circulars free.

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San Francisco, Cal., Oct. 22, 1888. **PETER SAXE & SON**, Lick House, S. F.

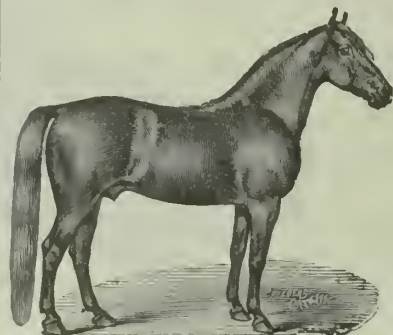
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— OF —

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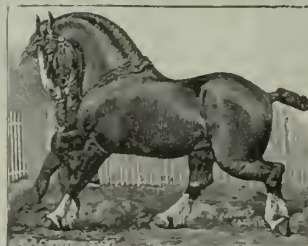
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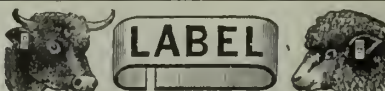
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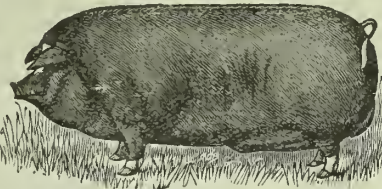
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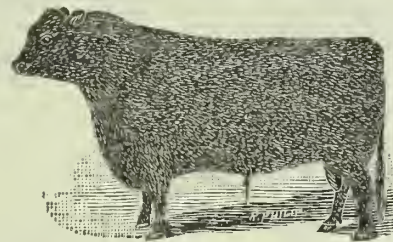
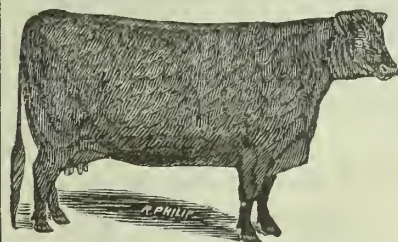
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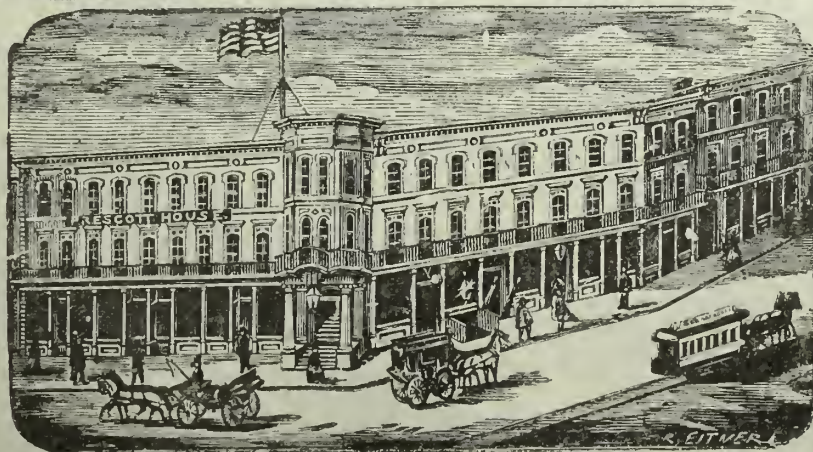
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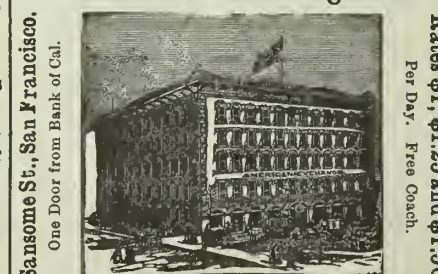
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And Plain Vertical Boiler.  
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APIARIAN SUPPLIES.

Italian Queens, \$2.50 each; Black Queens, \$1 each. Swarms from \$2.50 each; Smoker, \$1. Comb Foundation, \$1.25 per pound; V-groove Sections, \$4 per 1000 Comb Honey wholesale and retail; Hives, etc. **W. TYAN & SON, The Homestead Apiary, San Mateo, Cal.**



## S. E. MARKET REPORT

## Market Review.

## DOMESTIC PRODUCE, ETC

SAN FRANCISCO, April 1, 1891.

The weather continues favorable for growing crops. Trade in farm products is active, with prices generally higher for everything except garden truck and dairy products. In Europe and also at the East the wheat market has strengthened and ours moved up in sympathy. The following is to-day's cablegram:

LIVERPOOL, April 1.—Wheat—Fair inquiry, California spot lots, 8s 6½d; off coast, 4½s 6d, just shipped, 4½s; nearly due, 4½s 6d; cargoes off coast, held higher; on passage, higher prices asked but no advance established; Mark Lane wheat and maize, very strong but not quotable dealer: Wheat and flour on passage to Cork, U. K., 2,791,000 qrs.

## Foreign Grain Review.

LONDON, MARCH 30.—The *Mark Lane Express* says: English wheats are strong at an advance of 1s; foreign showed an average rise of 9d. The prospect of the wheat crops in Russia, Austria and Hungary gives the hope of an increased export surplus amounting to 4,000,000 quarters. Against this may be set the certainty of a heavy import demand from France, Italy, Belgium, Holland and Germany. The deficiency in those countries, combined with the wants in England, is expected to absorb the surplus wheat of America, Austria and Russia, thus causing a decidedly higher mean value during the cereal year 1891-92.

## Liverpool Wheat Market.

The following are the closing prices paid for wheat options per cwt. for the past week:

	Mar.	April.	May.	June.	July.	Aug.
Thursday.....	8s4½d	8s4½d	8s4½d	8s4½d	8s4½d	8s4½d
Friday.....	.....	.....	.....	.....	.....	.....
Saturday.....	.....	.....	.....	.....	.....	.....
Monday.....	.....	.....	.....	.....	.....	.....
Tuesday.....	8s4½d	8s4½d	8s4½d	8s4½d	8s4½d	8s4½d

The following are the prices for California cargoes for off coast, nearly due and prompt shipments for the past week:

	O. C.	P. S.	N. D.	Market.
Thursday.....	41s6d	40s3d	41s6d	Firmly held.
Friday.....	.....	.....	.....	.....
Saturday.....	41s6d	40s3d	41s6d	Firm.
Monday.....	.....	40s3d	.....	.....
Tuesday.....	41s6d	40s3d	41s6d	Very strong.

## Eastern Grain Markets.

The following shows the closing prices of wheat at New York for the past week, per bushel:

	Day.	Mar.	April.	May.	June.	July.	Aug.
Thursday.....	11½	11½	11½	11½	11½	11½	11½
Friday.....	.....	.....	.....	.....	.....	.....	.....
Saturday.....	11½	11½	11½	11½	11½	11½	11½
Monday.....	11½	11½	11½	11½	11½	11½	11½
Tuesday.....	11½	11½	11½	11½	11½	11½	11½

The closing prices for wheat have been as follows at Chicago for the past week, per bushel:

	Day.	Mar.	April.	May.	June.	July.	Aug.
Thursday.....	103	103	103	103	103	103	103
Friday.....	103	103	103	103	103	103	103
Saturday.....	103	103	103	103	103	103	103
Monday.....	104	104	104	104	104	104	104
Tuesday.....	105	105	105	105	105	105	105

NEW YORK, April 1.—Wheat—\$1.12½ for May, \$1.10½ for June, \$1.08½ for July, \$1.04½ for August and \$1.05½ for December.

CHICAGO, April 1.—Wheat—\$1.04½ for May and \$1.02½ for July.

## Russia's Wheat Crop.

ODESSA, March 27.—The winter wheat crop in South Russia is very unpromising, and small farmers are in a hopeless condition in consequence.

## Pacific Coast Crop Reports.

PORTLAND, March 28.—Oregon Weather Bureau. The week has been cloudy, cool and showery. There was frost on the 24th, but it did no damage. The ground is very wet, delaying the spring seeding. Winter wheat has a good stand and color and promises well. Peach, almond and apricot buds are swelling or in bloom. The fruit prospects were never better. The backward spring delays the fruit and insures it against a possible late frost. Warm sunshine is needed. Grass is growing and stock is in good condition.

SACRAMENTO, March 28.—Weekly crop report of State Agricultural Society, acting with Sergeant Barwick, Signal Service Observer: In the northern portion of the Sacramento valley the crop prospects were never better, although frequent showers have somewhat retarded plowing and planting. In the San Joaquin valley the crop outlook is good, but showery weather would be beneficial. There were light frosts in the coast counties, but no damage was done. Sacramento valley prospects for a large crop were never better. In the foothills the prospects for a large yield of fruit are the best in many years. The rainfall and temperature in Northern California are slightly below normal. In Southern California clear weather prevails, with temperature about the average and rainfall somewhat below. Grain is growing well, except that more rain is needed in the vicinity of Riverside and San Diego. Peaches, plums and apricots are in full bloom and early vegetables are abundant.

## Visible Supply of Grain.

NEW YORK, March 16.—The visible supply of grain in store and afloat, as compiled by the New York Produce Exchange, is as follows: Wheat, 22,745,000 bushels, a decrease of 267,000 bushels; corn, 2,988,000 bushels, an increase of 18,000; oats, 2,809,000 bushels, a decrease of 1000; barley, 1,328,000 bushels, a decrease of 166,000.

## Eastern Wool Markets.

NEW YORK, March 20.—Bradstreet's says: "A quiet trade is reported from all the leading wool markets. The demand is confined almost wholly to Australian. Territories and pulled wools are scarce and manufacturers have to take foreign fleeces in place of them. Sales have been made of small lots of Ohio and Michigan X and XX, and full prices have been obtained. Manufacturers do not want inferior wools, as they are making the finest grades of goods their mills can turn out. Texas wools are in fair demand, but the supply has become so reduced that the movement is light and fine territories are taken as fast as they arrive. Manufacturers are securing good results by mixing them with Australian wools. Pulled wools are in strong demand and prices are firmer because of reports from pullers of the scarcity of skins. Some large lots of

choice Australian wools are due to arrive within the next few days. The supply of these wools, it is thought, will be ample. A freer movement of Carpet wools is expected by dealers. Manufacturers are reported to have very light stocks, and are looking around for supplies.

NEW YORK, March 30.—The light condition of Eastern wool stocks gives New York a good share of the demand. Little unsold California here. The sales of domestic are 597,000 lbs. A heavy movement in imported, a million and a half to arrive. Washed wool somewhat improved in demand. A quarter of a million of Ohio X sold at Boston for 29¢@30¢. All mixing wools will have only second place to Australian, while quality and price can be duplicated; fabrics have fair call for fall goods. Heavy wear drags. Delaines, firm, active; ruling seaboard rates. Boston reports a steady trade. Sales, 775,000 lbs. foreign; 1,885,500 lbs. domestic. Market unusually clear of Territorial and kindred wool for season; Philadelphia, quiet. The chief demand for Worsted mill grades easily filled at the moment.

## Fruit Crop Prospects East.

Missouri State Horticultural Society reports the condition of the fruit crop on March 12: Apples—From all parts of the State come flattering reports, and only where the orchards held a very full crop last year is there any doubt about the prospect. Pears—We find some injury in the northern part of the State, and in very many portions damage is done to the LeConte. Peaches—In the northwestern part of the State they are killed, and very badly injured all along the northern portion, until you come to the eastern portion where the prospects are 50 per cent. The injury seems to drop down below the Missouri river in the western portion into Jackson, Cass and Johnson counties, where it ranges from 50 per cent to 70 per cent. The injury seems to be lighter as you go East, and the line of injury recrosses the river below Boone county, and the counties near St. Charles seem to be all right again. The southern part of the State seems to be free from injury and the prospects bright. I fear that the cold of about March 1 has done more injury than has been reported, and that we will find other places injured when closer examination is made. But when we take into account that there are ten times as many buds as we want peaches on the trees, and we can easily lose that many and still have a good crop of peaches of better size and quality than ever—we see that we must not get frightened too soon. Plums—the Wild Goose varieties are also badly injured as well as the Kelsey and Prunes Simoni. Cherries—seem to be very little injured yet, and prospects good.

## Dried Fruits East.

NEW YORK, March 28.—California raisins have had a rather freer movement the past few days, but with irregular prices. Three-crown, loose, are selling at \$1.25@1.50 per box, as to brand and condition. Fine lines were picked up at \$1.75, some very good stock at \$1.60 and inferior as low as \$1.45. Three-crown in bags sold in moderate quantities at 5½¢@6¢ here, the latter for very choice, and 5¢ in Boston.

NEW YORK, March 30.—The market is now bare of bag raisins. Inquiry lively; dealers refuse to pay full 5½¢ for best, laid down here. Any advance to that figure would promptly turn attention to Valencias, which are quoted low in view of possible shipments from the west owing to the reputed soft condition of cheap grades. Buying will be cautious as warmer weather approaches. Boxed crowns and layers quoted as before.

Prunes.—Flat, unsettled; influenced by easier French, four sizes of which can be landed here at 8½¢, against 10½¢ a month ago.

Evaporated apples losing money; 12½ is now the top price. Some holders of canned peaches losing heart, offering good standard at \$2.25.

NEW YORK, March 30.—Unpeeled California peaches, boxes of well-known brands, are quoted at 14¢. Evaporated California apricots were offered Saturday at 16¢ spot. Choice California dried wine grapes are quoted at 5½¢ spot.

## Orange Shipments.

SACRAMENTO, March 29th.—To-day and to-night ten special orange trains passed eastward from the southern part of the State, comprising 60 carloads. P. E. Platt, who returned from Los Angeles, says: "California oranges are now taking possession of the markets of the United States to a greater extent than was deemed possible earlier in the season. Large shipments are made daily to all parts of the Union, even as far east as New York and Boston. The Florida crop being virtually out of market, the field is open for California." The W. R. Strong Company of Sacramento to-day forwarded East the first full special train shipped by one firm. It was from Los Angeles, and consisted of seventeen cars. Railroad men pronounce it a model train. It is composed of new cars of uniform pattern, with passenger train trucks and air-brakes. It is expected to reach New York in eight days.

## Miscellaneous.

NEW YORK, March 30.—All strictly choice hops are firmer in tone, but the sales are limited. Numerous rumored sales of a speculative character have no direct bearing upon actual hops, which range common to best nineties, 24¢@31¢.

Honey is weaker, as the Jewish demand has subsided. Amber, 6½¢@7¢.

Pure, clean, yellow Pacific Beeswax is quoted at 30¢.

Mustard seed is quiet and steady; good supply at 3½¢@4½¢ as to color.

Wholesale Limas are not above \$2.60 spot.

## Local Markets.

	Buyer Season.	Seller 1891	Buyer 1891.
Thursday.....	131	129	129
Friday.....	131	130	130
Saturday.....	134	133	133
Monday.....	134	133	133
Tuesday.....	134	133	133

	Buyer Season.	Seller 1891	Buyer 1891.
Thursday.....	131	129	129
Friday.....	131	130	130
Saturday.....	134	133	133
Monday.....	134	133	133
Tuesday.....	134	133	133

BAGS—The market is steady at 7½¢ for May-June delivery. The warden at San Quentin notifies us that prison bags are sold up for the season. It looks as if dealers are trying to form a corner.

BARLEY—The sample market is higher, due to light stocks and good demand. In futures, trading on Call has been nearly altogether "wash sales." Operators on Call make wash sales for the purpose of influencing the market in the direction calculated to help them. The reported sales on to-day's call are as follows.

Morning Session: Buyer Season—100 tons, \$1.35½; 400, \$1.36. 100, \$1.35½; 100, \$1.35½; 100, \$1.35½. Afternoon Session: Seller 1891—100 tons, \$1.04½; 100, \$1.04½. Buyer Season—200 tons, \$1.35½; 100, \$1.35½. 100, \$1.35½.

BUTTER—Heavy receipts and a restricted outlet are causing stocks to accumulate. The market is weak at lower prices.

CHEESE—The market is tending down under free receipts and only a fair demand.

EGGS—The market is lower and weak at the decline. The receipts are large while the demand is only fair.

FLOUR—The market is strong with an advancing tendency.

WHEAT—The market for sample parcels is very strong, but then this we have steadily stated would be the case. This opinion was grounded on the statistical position the world over. In futures trading, wash sales and cross-orders have been light, but with prices upwards.

The following are to-day's reported Call board sales.

Morning Session: Buyer 1891—200 tons, \$1.54½; 100, \$1.55½; 200, \$1.55½; 600, \$1.55; 200, \$1.55½; 100, \$1.54½. Buyer season—1200 tons, \$1.54½; 800, \$1.54½; 100, \$1.54½; 900, \$1.54½; 100, \$1.54½. Seller 1891—400 tons, \$1.46. Buyer 1891, after August 1st—100 tons, \$1.51½; 500, \$1.51½. Afternoon Session: Buyer 1891—400 tons, \$1.54½; 500, \$1.54½; 200, \$1.55. Buyer season—600 tons, \$1.54½; 100, \$1.54½. Seller 1891—100 tons, \$1.46½. Buyer 1891 after August 1st—500 tons, \$1.51½; 100, \$1.51½. 100, \$1.51½.

## Market Information.

## Produce Receipts.

Receipts of produce at this port for the week ending March 30th, were as follows:

Flour, qr. sks.....	69,904	Middlings, sks.....	3,405
Wheat, cts.....	422,979	Alfalfa, ".....	.....
Barley, ".....	18,902	Chicory, bbls.....	250
Rye ".....	320	Broomcorn bbls.....	.....
Oats ".....	6,009	Hops, bbls.....	88
Corn ".....	1,767	Wool, ".....	1,640
*Butter ".....	1,207	Hay, tons.....	2,109
do bbs.....	695	Straw.....	16
do bbs.....	.....	Wine, gals.....	19,154
do kegs.....	.....	Brandy, ".....	7,690
do tubs.....	.....	Raisins, bxs.....	1,760
do bxs.....	727	Honey, cs.....	82
+Cheese, cts.....	527	Walnuts, sks.....	.....
do bxs.....	86	Flaxseed, ".....	.....
Eggs, doz.....	97,500	Mustard, ".....	.....
do "Eastern.....	.....	Almonds, ".....	163
Beans, cts.....	10,167	Peanuts, ".....	334
Potatoes, sks.....	14,262	Popcorn, ".....	.....
Onions, ".....	812	Beet sugar, bbls.....	.....
Bran, ".....	7,188	do do sks.....	.....
Buckwheat.....	.....	.....	.....
*Overland.....	cts. +Overland 220	cts.	.....

## Cereals.

The local wheat market has held strong throughout the week with a slight advance on the previous week's prices. Buyers are still bearish, only taking wheat when compelled; in this course, as we have heretofore stated, they are actuated with the sole purpose of keeping values so as to enter the season of 1891-92 at a low range of values. It now looks as if buyers will not be able to force prices down to the low figures they expect, for the next season may be entered at not less than \$1.40 or \$1.45 per cental for No. 1 white shipping, and it may be that the price will be from 5 to 7½ cts per cental higher than named. There is no doubt of large lines of short sales put out owing to glowing crop report. If this market before July next is very heavily shorted, it may make some of the sellers do considerable "rustling" to make deliveries at a profit. The quantity of old wheat in the State is estimated by the secretary of the Produce Exchange too high; this the writer knows from his returns. The stocks in country warehouses are exhausted, or so nearly as to cut no important figure in estimating on the available supply up to harvest. In Oregon and Washington, under heavy shipments, there is comparatively little to draw from.

Crop advances from all parts of this State are uniformly good. The plant is making a strong growth. While the straw generally is reported of medium average height for this month, yet the plant has stood out better than for years, and will undoubtedly give a large out-turn.

Barley has ruled fairly strong throughout the week with an advance established toward the close. The light available supplies on this coast combined with free consumption, make the market sensitive. When wheat was lower, considerable of that cereal was fed, but with higher prices it does not pay to feed it instead of barley.

Oats have fluctuated very little. The tendency of the market has been to higher prices under limited receipts. Feeders and dealers buy sparingly, only taking for immediate wants. It is claimed that the crop prospects in this State are of the best.

After declining, corn shows a slight advance at the close with a fair demand. The outlook for the crop is all that can be desired. An increased acreage is reported.

## Grain in Call-Board Warehouses.

According to the report of George A. Abel, official Grain Inspector of the San Francisco Produce Exchange Call Board Association, the stock of grain, etc., in all city call-board warehouses on April 1, 1891, compares as follows with the stock on hand March 1st.

	March 1st.	April 1st.
Wheat.....	5,898	6,904
Barley.....	8,948	7,997
Oats.....	2,394	2,030
Corn.....	2,009	1,638

The stock of wheat in all Port Costa warehouses is 83,030 tons, and in Stockton warehouses 36,557

tons, making the total stock in all Call Board warehouses 126,491 tons, as compared with 164,734 tons on March 1st.

## Feedstuff.

Ground feed is fairly strong at full figures under moderate receipts. The demand is light yet enough to keep prices strong. Rolled and ground barley is taken for shipment and in fair demand for home use.

Hay continues to hold strong for the more choice grades; poor or off grades are barely steady. New hay will soon put in an appearance, but of course the demand at first will be slow for city use. The crop in this State it is claimed will be large.

## Fruits.

H. Harris & Co, Boston, forwards us a catalogue of sales of California oranges made at auction by their firm on March 20: 28 boxes fancy Konah \$3 to \$4.37½ a box, 233 boxes fancy seedlings \$3 to \$4.37. Over one-half of the latter fetched over \$4 a box. The sales of California lemons aggregated 55 boxes at \$2.75 to \$3.25 a box.

The first strawberries of the season came to hand yesterday (Tuesday) and sold at \$1 a box. G. P. Craig of Mayfield was the shipper.

The apples coming in are more or less defective, and consequently they are poor keepers. So far as we are able to learn, all received have to be overhauled.

The receipts of oranges are barely up to trade requirements. Choice to fancy seedlings and navels letch an advance, and even \$5 to \$5.25 a box for 150 to 175 Riverside navels. The supply is light. There is both a local and outside distributive demand. Shipments to the east continue very heavy, and yet the Eastern cry is for more. The improved fruit cars meet with praise from consignors and consignees.

Lemons are in light receipt, and as the weather grows warmer the demand enlarges and the market strengthens. Limes are strong.

Crop advances for both vine and tree fruits, continue of the most favorable character.

The receipts of dried fruits show a slight increase. They consist of odds and ends which show that the supply is cleaning up. There is a fair demand.

Raisins if choice fetch full prices, but poor stuff is slow of sale.

## Vegetables.

Seasonable garden truck is coming in, in increasing quantities, causing lower ranges of values in peas, asparagus, beans, celery, rhubarb and early cabbages. The quality of both peas and beans does not average the best, which causes a wide range in prices. With continued free receipts, canners will be able to enter the market soon. Los Angeles tomatoes received the past week were more or less frost-bitten, causing them to come to hand in poor condition and necessitating forced sales.

Onions are strong under moderate receipts and a fair inquiry.

New potatoes are slow in coming to band. It is said that the southern part of the State is making free shipments east instead of to this market. Receipts it is thought, will soon begin to show steady increases.

Old potatoes are firm for good keepers of the more choice varieties, but poor stuff is hard to sell.

## Live-stock.

Bullocks are strong with a slight advance obtainable for desirable sized that cut up with little wastage. The improved pasture causes less disposition to sell, while range cattle in Nevada and Arizona are lessening in numbers. Western Oregon is still drawing from us, but late advices from up north report that shipments will soon come forward from ranges east of the Cascades. Mutton sheep for delivery after shearing are offering more freely; prices it is claimed will soon shade off, but then this is problematical and depends largely on the weather and beef supply. Hogs are higher. Milch cows and horses are in good demand.

The market for dressed cattle is quoted as follows [to obtain the price on foot, take off from the price for stall-fed one-third to one-half, according to the nature of the feed and time fed; and for grass-fed take off the price from 40 to 60 per cent]:

HOGS—On foot, light grain fed, 5½¢@5¾¢ lb.; dressed, —@—¢ lb.; heavy, 5½¢@5¾¢ lb.; dressed, —@—¢ lb. Stock hogs, 4@4½¢ lb. BEEF—Stall fed, 7½¢@—¢ lb.; grass fed, extra, 6½¢@—¢ lb.; first quality, 6@—¢ lb.; second quality 5@—¢ lb.; third quality, 4@—¢ lb.; bulls and thin cows, 2@3¢ lb. VEAL—Small, 7½¢@8½¢ lb.; large, 6@7¢. MUTTON—Wethers, 9@9½¢ lb.; ewes, 8@9¢ lb.; spring lamb, 10@12¢ lb.

## Miscellaneous.

From the *Commercial News* of April 1st the following summary of tonnage movement is compiled:

On the way to	1891.	1890.
San Francisco.....	242,486	172,216
San Diego.....	14,717	17,048
San Pedro.....	10,669	7,001
Oregon.....	27,720	24,822
Puget Sound.....	27,097	18,537

Totals.....322,689 239,624

In port at

San Francisco, disengaged.....	6,749	21,812
" engaged for wheat....	60,972	52,855
San Diego.....	2,194	.....
San Pedro.....	.....	17,700
Columbia River.....	17,884	.....
Puget Sound.....	.....	.....

Totals.....87,759 92,367

To get the carrying capacity, add 65 per cent to the registered tons as given above.

From July 1, 1890, to March 27, 1891, the following are the exports from this port:

Wheat, cts.....	9,824,190	10,744,284
Flour, bbls.....	896,811	846,619
Barley.....	212,802	901,601

Eastern poultry coming in sparingly with wild game out of market causes California poultry to fetch better prices. Well conditioned, healthy, large sized young poultry is wanted, and fetches even higher prices than we quote.

Hops are stronger and to buy gilt-edged 40 cts. would have to be paid. Crop prospects continue favorable.

Nuts are neglected.

Wool is coming in more freely. Buyers are beginning to look around. It is conceded that the market will open higher than ruled last year. Our quota,



tions are nominal. They will be changed next week. Under stronger selling, bean-buyers are offish and are not disposed to pay outside quotations. The distributive demand is free. Honey meets with only fair inquiry. Receipts are light, but crop prospects are said to be good. Exports by sea the past week aggregate as follows: Wheat, cils, Havre, 207,714; Cork, 87,894; Falmouth, 56,427; Hull, 61,360; Fleetwood, 57,302; Flour, bbls, Petropaulofski, 700; Kahului, 305; Barley cils, Honolulu, 458; Mahukona, 1406; rolled, Honolulu, 559; Mahukona, 564. Bran, sks, Honolulu, 1200. Hay, bales, Honolulu, 726; Santa Rosalia, 576. Wine, gals, Mexican ports, 4876; Santa Rosalia, 2516; Mazatlan, 625. Beans, lbs, Victoria, 19,511. Dried fruits, lbs, Mexican ports, 2355; Victoria, 1656.

Domestic Produce.

Extra choice in good packages fetch an advance on top quotations, while very poor grades sell less than the lower quotations.

BEANS AND PEAS.

Bayo, cils.....	3 40 @ 3 70	do Ob'es.....	10 @ -
Butter.....	2 85 @ 3 15	do paper shell	11 @ 12 1/2
Peas.....	2 95 @ 3 20	do Chili.....	9 @ 10
Red.....	2 50 @ 2 90	Almonds, hd shl.	7 @ 9
Pink.....	2 20 @ 2 40	Softshell.....	14 @ -
Small White.....	2 75 @ 3 00	Paper shell.....	15 @ -
Lima.....	3 15 @ 3 60	Brazil.....	12 @ 15
Fld Peas, bkeyo	1 65 @ 2 00	Pecans small.....	12 @ 14
do green.....	1 50 @ 1 75	do large.....	15 @ 18
do Eastern do.....	2 50 @ 3 00	Peanuts.....	5 @ 5 1/2
do Nies.....	1 75 @ 1 80	Filberts.....	11 @ 12 1/2
Split.....	4 1/2 @ 5 1/2	Hickory.....	7 @ 8
		Ohestnuts.....	12 @ 15
		Pine.....	10 @ 12 1/2

BROOM CORN.

Choice to Extra 70 @ 90	do
Fair to Good.....	52 @ 60
Poor.....	42 @ 47 50

CHICORY.

California.....	5 1/2 @ 6	New, lb.....	2 @ 3 1/2
German.....	6 @ 6 1/2	Early Rose, sks.	70 @ 75

DAIRY PRODUCE, ETC.

Butter.....	11 @ 15	River Reds.....	65 @ 75
Cal. Poor to fair, lb	22 @ -	Burbanks, river.	65 @ 75
do good to choice 20 @ -		do Salinas.....	90 @ 1 25
do Giltedged.....	22 @ -	do Petaluma.....	80 @ 90
do Creamery rolls 23 @ -		do Humboldt.....	75 @ 1 15

CHEESE.

Cal. choice mild	10 1/2 @ -	Jersey Blues.....	70 @ 80
do fair to good	8 1/2 @ -	POULTRY AND GAME.	
do gilt edged.....	11 @ -	Hens, doz.....	6 00 @ 8 00

EGGS.

Cal. ranch, doz.	17 @ -	Roosters, old.....	5 00 @ 7 00
do do selected	19 @ -	do young.....	8 00 @ 10 00
do store.....	16 @ -	Broilers, small	6 00 @ -

FEED.

Bran, ton.....	13 50 @ 14 50	Fryers.....	8 00 @ -
Feed meal.....	34 00 @ 35 50	Ducks, tame.....	6 50 @ 7 50
Gr'd Barley.....	30 50 @ 32 00	do large.....	8 00 @ 9 50

MIDDINGS.

Middlings.....	17 00 @ 18 50	Geese, pair.....	1 75 @ 2 25
Oil Cake Meal.....	26 00 @ 28 00	Turkeys, Gobl'r.	12 @ 14
Manhattan Food 100 lbs	7 50	do dressed.....	14 @ 17

HAY.

Compressed.....	13 50 @ 18 00	Alfalfa.....	7 @ 7 1/2
Wheat, per ton.....	13 00 @ 17 00	Canary.....	2 1/2 @ 3
do choice.....	18 00 @ -	Olover, Red.....	9 1/2 @ -

GRAIN ETC.

Barley, feed, cts.	1 35 @ 1 38 1/2	Whites.....	17 1/2 @ -
do Choice.....	1 40 @ 1 42 1/2	Ootton.....	20 @ -

FLOUR.

Extra, City Mills	4 55 @ 4 65	Flaxseed.....	2 50 @ 2 80
do City Mills	4 40 @ 4 55	Hemp.....	3 1/2 @ -
Superfine.....	3 10 @ 3 65	Italian Ryegrass	10 @ 11

GRAIN ETC.

Barley, feed, cts.	1 35 @ 1 38 1/2	Pernutal.....	7 @ 9
do Choice.....	1 40 @ 1 42 1/2	Millet, German.....	5 @ -

FLOUR.

Extra, City Mills	4 55 @ 4 65	Mustard, yellow	2 20 @ 2 50
do City Mills	4 40 @ 4 55	do Brown.....	2 1/2 @ 3

GRAIN ETC.

Barley, feed, cts.	1 35 @ 1 38 1/2	Rape.....	2 1/2 @ 2 1/2
do Choice.....	1 40 @ 1 42 1/2	Ky. Blue Grass.....	25 @ 27

FLOUR.

Extra, City Mills	4 55 @ 4 65	Sweet V. Grass.....	75 @ -
do City Mills	4 40 @ 4 55	Orchard.....	14 @ 16

GRAIN ETC.

Barley, feed, cts.	1 35 @ 1 38 1/2	Hungarian.....	7 1/2 @ 8
do Choice.....	1 40 @ 1 42 1/2	Lawn.....	27 1/2 @ 40

FLOUR.

Extra, City Mills	4 55 @ 4 65	Mesquit.....	7 @ 8
do City Mills	4 40 @ 4 55	Timothy.....	5 1/2 @ -

GRAIN ETC.

Barley, feed, cts.	1 35 @ 1 38 1/2	Rendered, lb.....	3 @ 3 1/2
do Choice.....	1 40 @ 1 42 1/2	Refined.....	4 1/2 @ 5 1/2

FLOUR.

Extra, City Mills	4 55 @ 4 65	Wool - SPRING, 1890.	
do City Mills	4 40 @ 4 55	Humb't & Men'cino	19 @ 24

GRAIN ETC.

Barley, feed, cts.	1 35 @ 1 38 1/2	Sac'to valley.....	15 @ 22
do Choice.....	1 40 @ 1 42 1/2	Free Mountain.....	18 @ 24

FLOUR.

Extra, City Mills	4 55 @ 4 65	S. Joaquin valley	12 1/2 @ 17
do City Mills	4 40 @ 4 55	do mountain.....	17 @ 22

PACIFIC COAST WEATHER FOR THE WEEK.

(Furnished for publication in this paper by officer in charge of branch Signal office, Division of the Pacific.)

DATE	Olympia.	Portland.	Eureka.	Red Bluff.	Sacramento.	S. Francisco.	Fresno.	Keeler.	Los Angeles.	San Diego.
March 25-31.	Rain.....	Rain.....	Rain.....	Rain.....	Rain.....	Rain.....	Rain.....	Rain.....	Rain.....	Rain.....
W.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
T.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
F.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
S.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
S.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
M.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
T.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

EXPLANATION. Cl, for clear; Cy, cloudy; Fr, fair; Cm, calm; - indicates too small to measure. Temperature wind and weather at 5 P. M. (Pacific Standard time) with amount of rainfall in the preceding 24 hours. T indicates trace of rainfall. P C, partly cloudy. Rn., rain.

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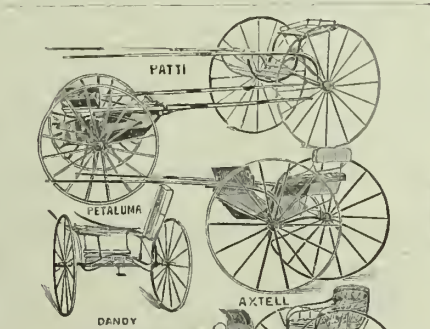
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fence colored RED by boiling in a chemical solution that preserves the wood. Address JUDSON MANUFACTURING COMPANY, 14 and 16 Fremont Street, San Francisco.



**SHORT-WEIGHT GOLD COIN BECOMING COMMON.**—Short-weight gold coins are becoming annoyingly common in the Eastern States. A "shortness" is due to a species of robbery familiarly known as "sweating coins." From a careful examination of light pieces which are now being found, it is evident that the thief is not doing his work by the old hand method of shaking the coins in a bag and then gathering the dust by means of quicksilver, but that he has brought into requisition the agency of electricity. The service of an ordinary galvanic battery and some cheap acid is all that is necessary to conduct the operation by the electric process. The scheme is similar to that employed in plating with gold by electricity. The coin is placed in the fluid and attached to it are wires from the poles of the battery leading to another piece of metal prepared to receive, in the form of plating, the metal to be removed from the coin. The battery being set in motion, sufficient gold to form a plating is quickly transferred, and as it is removed uniformly from all parts of the coin, the liability of disfigurement is reduced to a minimum. The only effect is to blur the character slightly. About 50 cents' worth of gold can be removed in this way from a ten-dollar gold piece, without exciting the suspicion of the casual observer. To the skilled eye of an expert, however, the effect is generally apparent at a glance.

**A WARNING TO DOG OWNERS.**—Professors of canine pets will do well to take warning, says the London *Lancet*, from certain recently reported observations of Prof. Nothnagel. These go to prove that the development of cysticerci in the human subject is in some cases to be attributed to contact with the saliva of lap-dogs which have been allowed to lick the face and mouth of their owners. The explanation is a feasible one, and adds a noteworthy contribution to our knowledge of morbid etiology. The *taenia echinococcus*, as is well known, inhabits the small intestine of the dog, and it is highly probable that the ova occasionally find their way into the animal's mouth; for example, in vomiting. There are various esthetic reasons why the kiss of even the most cleanly and most friendly pug or terrier should be dispensed with. We have now, thanks to the Viennese observer, a still stronger argument to urge against this practice. It may, indeed, like the others, fail to daunt the too-devoted master or mistress, but we cannot do less than avail ourselves of this opportunity to forestall, if possible, by a timely warning, the sharper teaching of experience.

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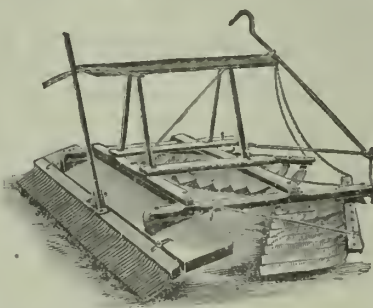


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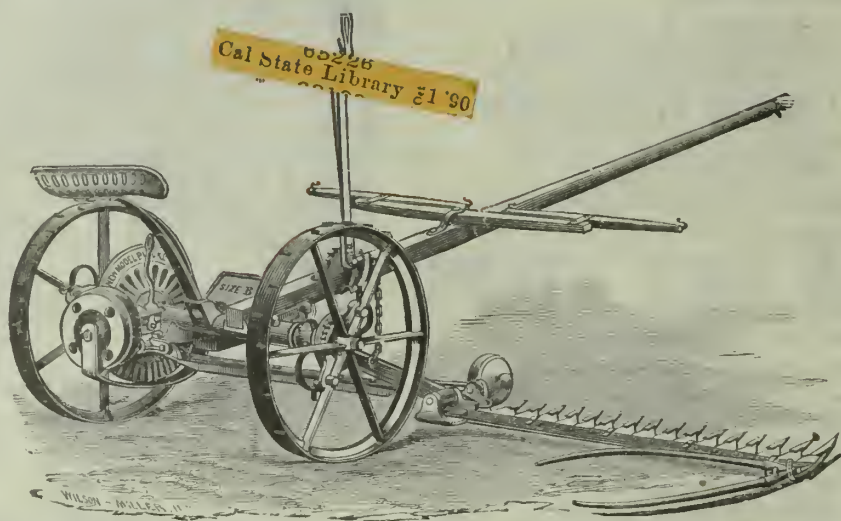
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AGENTS given EXCLUSIVE sale of the mill for the term of five years and mills furnished from \$10 to \$15 less than they can buy wooden mills.  
Write for Particulars. Address

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Vol. XLI.—No. 15.

SAN FRANCISCO, SATURDAY, APRIL 11, 1891.

DEWEY & CO., Publishers,  
Office, 220 Market St.

#### A Notable California Peach.

Peach growers have long desired a fine yellow freestone peach, which should be somewhat earlier than Crawford's Early. The Yellow St. John, a New Orleans peach, has this early season, but it is usually small and therefore less desirable. For the last ten years we have known that W. W. Smith of Vacaville has been on the search for a large, early, yellow freestone, and failing to find it in the varieties brought out by others, he set about developing it for himself. His aim was to combine the size and quality of Crawford's Early with the earliness of the Yellow St. John, and this he attempted to do by grafting the Crawford into a tree of the St. John, allowing the branches of the two to intermingle in the hope of a satisfactory chance hybrid of the two varieties. He planted hundreds of pits from this double tree, fruited the seedlings, and finally secured what he sought. Mr. B. M. LeLong, in his report for 1890, made the first wide announcement of this new variety, and from his report we quote as follows:

This peach ripens at least two weeks ahead of the Foster and the Early Crawford; indeed, it is the earliest yellow freestone peach ever originated. It is most beautifully colored, and, what is more, is free from onch leaf. So far it promises to be a good bearer and a thrifty grower.

Mr. I. H. Thomas, State Horticultural Commissioner for the San Joaquin district, writes: "I fruited the Early Imperial peach this season on a tree that had a one-year-old top graft. The peach was very highly colored, almost a dark red on a yellow ground peach, and very firm, and I believe it will be a good shipper. The time of ripening with me is about two weeks ahead of the Foster or the Early Crawford, and near the time of Hale's and Parson's Early. The great value of this peach is that it prolongs the time of drying two weeks. It dries fairly well. I consider this peach to be the most valuable acquisition that has been made to the peach family for the past 20 years."

Mr. Thomas of Visalia is strong in his belief in this new variety and has, we believe, made an arrangement with Mr. Smith by which he will propagate it largely by June budding this summer. We shall have further reference to this variety as we note its date of bearing and other characteristics for ourselves this summer.

#### California Fruits—Second Edition.

The publishers are pleased to announce that the demand for "California Fruits and How to Grow Them" by Mr. Wickson, has been so large that preparations for the issuance of the Second Edition must proceed forthwith. The reception of this work by fruit-growers, not only in California but in distant regions, has been exceedingly gratifying and encouraging to author and publishers. They have the satisfaction of knowing that the book has proved a valuable guide in directions where such guidance was greatly needed, and their energies will now be exerted toward a second edition which shall still more fully meet public and private needs. To this end the friendly aid and co-operation of all readers of the RURAL who have the book are earnestly solicited. Will not every one who has discovered an error in the book, or who finds it does not agree with his observation or experience or who can con-



THE EARLY IMPERIAL—A NEW CALIFORNIA SEEDLING.

tribute information on any subject later than that which the first edition embodies, kindly call our attention to it? All such favors will be fully considered by the author, and every suggestion which can be practically made use of will add to the value of the next edition, and thus prove of public benefit by making the book a truer reflection of California experience and observation which is what it claims to be. It is desirable that kindly assistance of the character outlined should be rendered at once, for as stated above, the work must proceed at once.

DEATH OF BARNUM.—P. T. Barnum, the great showman died at his home in Connecticut April 7th. He left an estate of five millions.

IRRIGATION ENTERPRISES.—Irrigation enterprises seem to be progressing vigorously at the South. It is telegraphed from San Bernardino that the pipe line to Alessandro is nearly completed and the water will be turned on next week. Nearly 500 laborers are at work putting in distributing pipe on the Alessandro tract, 80 miles of which is being laid. The Arrowhead Reservoir Company, organized in Cincinnati, with a million dollars capital, will commence work soon putting in a system of reservoirs in the mountains north of San Bernardino on the head waters of the Mojave river. Half a million will be put into the enterprise this year, and 80,000 acres or more will eventually be irrigated.

#### Wheat Advancing.

Our course of comment has been toward a higher value for wheat, and we are glad to see the tendency realized. It seems too late to rest upon a firm basis. The London Standard of April 6th, as reported by cable, publishes a long review of the agricultural outlook, in the course of which it says the steady rise in wheat revives the hopes of the English farmer and adds that wheat will probably reach the highest price in many years, the principle cause for the rise being the failure of foreign crops. The wheat crops of France and Russia, according to the Standard, are much below the average, and it says the deficiency will be at least 20,000,000 quarters. The same paper says: It is reported that the cold winds and frosts have almost destroyed the French crop. Germany, Holland, and Belgium all furnish pessimistic reports. In Roumania there is a decreased wheat area, and in India there has been a bad wheat season. The only exception is Hungary, where there are better prospects. But it is almost certain that the world's wheat consumption will exceed the production as computed.

Of whatever magnitude America's crop may be, it will not be sufficient to cover the European deficit, thus compelling an extensive draft upon the reserves for the third year in succession. The Standard, in conclusion, says: Increased home consumption and the decreased wheat area, owing to the spread of population, and a recourse to scientific tillage in order to repair the waste of the first settlers, thus increasing the cost of production, must inevitably remove the American farmer's formidable competition in the European markets and allow the English farmer to look forward to a prosperous future.

Thus the British farmer is content to compete with American producers and expects a good market for both. But what a happy time the British producer will have when America eats all of her own wheat which the publicists say will soon happen. In any event it looks as though wheat was destined to become a valuable commodity again and we are glad of it.

RAIL SHIPMENTS OF GRAIN.—The large movement of grain from Washington and Oregon overland by rail suggests the question of whether our grain-growers are doing all that can be done to look into the possibility of rail movement of California grain. Can we use the rail instead of the ship or in competition with the ship? It is somewhat uncertain, too, what amount of shipping we shall have available here during the coming harvest. This is a subject which grain-growers' organizations should look into. We have no special information on the subject to offer. We merely suggest it as worth looking into by those who have talents in that direction.

AMERICAN PORK ABROAD.—It is announced that Germany has definitely resolved to withdraw the embargo upon American pork. The official notice will probably be delayed some time in view of certain negotiations going on between Germany and the United States.

SADDLE HORSE BREEDERS.—At a meeting of 75 horse-breeders held at Louisville April 8th, looking to the organization of a Saddle-Horse Association, it was proposed to keep a register and have a standard as with trotting horses.



## THE STOCK YARD.

## The Cattle Outlook.

"Why do beef and stock cattle continue so low?" This is the question that stockmen are now seriously considering. The interest is so vast and so widely extended that this continuing depression of 30 to 40 per cent below what ought to be par value is viewed with the gravest apprehension. The very life of the cattle industry seems to be at stake, and while it is trembling in the balance through its vast ramifications, it depresses many kindred interests. It is proper, then, to ascertain the causes of this depression and suggest a remedy. There are four principal reasons for this era of low prices, and, unfortunately, many local causes which seem to have combined to jump upon the cattle business while it is down. First, then, the agricultural and horticultural interests are rapidly encroaching upon the stock range. For example, a few years ago the whole State of Kansas was practically a stock range. Now it is fenced, dotted with homes, and such a thing as a stock range is exceptional. We of California well know, and many even rejoice over the fact that stock ranges are giving way to vineyards, orchards, gardens and comfortable homes. It is safe to say that in the last ten years the range has been diminished at least 40 per cent by the advance of settlers and civilization.

Second, clearing and settling any given locality raises the taxable value of all adjacent lands, so when the tax reaches, say 25 cents per acre, at the old rate of six acres of range to each head of stock, there comes an annual charge of \$1.50 per head. At that rate, still more at an increased taxation, the load becomes too valuable for range and stockmen get.

Third, it is beyond question that the continual ranging of cattle over land diminishes its food product. There is one great ranch in Kern county upon which sheep have never trod, that has been exclusively devoted to stock cattle, which ten years ago well supported one head of stock on each five acres, yet now 15 acres are none too much per head. A very slight tax per acre will effectively drive stock cattle off the range.

Fourth, and most serious of all, the ranges are overstocked, and every cattle man exerts himself to turn as much stock as possible into beef, and sell it, no matter what the market price is. It must be remembered that if stock cattle increase only an average of 25 per cent annually, this is at least four per cent greater than the annual demand for beef, so that in spite of the closest management a range is bound to become overstocked, while bulls and passable beef cattle are forced upon the market to the certain depression of selling prices. Again on many ranges there are more steers five, six, or seven years old, and they could have been driven from a poor range to a better one—a thing now out of the question. They have been held over in the hope of higher prices, have got out of the market condition and are still on hand like a lot of shop-worn goods and encumber the range. Yet in spite of all this, there is a strong hope of at least a temporary rise in beef cattle within two years. The losses of stock cattle from the inclement winter two years ago on the ranges of the middle North averaged fully 40 per cent, almost entirely cows and heifers. It only reduced the stock cattle to the capacity of the ranges, except in comparatively few cases, which have since been resupplied. But the calves which would have been beef cattle two years from now, did not materialize by reason of the storms, and hence there is a chance that the market will not then be overloaded. But this is only temporary. There is but one method of permanent relief, and that must be by diminishing the supply. Hence, the cows will have to go, or the bull be made to stay away, and that is not bull nature. Fortunately, there is an easy and proper way to treat these gentle animals, and it seems strange that stock raisers in general have not more extensively availed themselves of it. Here are the conditions confronting a stock raiser: range overstocked; market depressed; annual increase of supply over demand of at least four per cent, and a lot of old cows, each year getting older, and rarely becoming fit for beef. What is to be done? Spay the cows. The remedy is so simple and the advantages are so great, that he is indeed a poor business man who will not adopt it. A cow not with calf if spayed in the spring, will be good beef in the fall, and will weigh at least 50 pounds more than an open cow. The functions of nature are suspended and all she has to do is to eat and grow fat. She will feed unmolested right along with steers, and can be shipped with them without any trouble. This is not the case with open cows. The beef of a spayed cow is equal to that of an average steer, while a spayed heifer with its small bone and good flesh, makes meat of superior quality. Spayed heifers will dress as high as 56 pounds to the hundred, and cows 50 pounds, while open cows in prime condition will go from 42 to 45 pounds at the most. Then when a spayed cow is fat it is beef and sure of market, while an open cow may be in good condition, and yet with calf, and unsalable. Of 2969 cows spayed in Kern county during the last two years 79 died from the operation.

The outcome figures like this; gain on 2890

cows at 50 pounds each 144,500 pounds of beef. Loss 79 head averaging say 525 pounds each 33,575 pounds; net gain 110,925 pounds. At 5 cents a pound this represents \$5,546.25 at an entire cost for spaying, handling, etc. of say \$2000, making a net gain of \$3546.25. This, however, does not fairly represent the gain, for stock cows by spaying were turned into beef cattle with a market value. A case occurring in Stanislaus county three years ago, better illustrates the profit. 2500 cows were purchased at an average cost of \$7 each, or for \$17,500. Of these, 2460 survived spaying, and were sold at an average of \$23 per head, making a net profit, all due to spaying, for \$7 a head; without spaying would have sooner or later laid down and died, leaving their bones to grace the range, while by spaying they became beef cattle and valuable in market. The wise stockman does not want to overstock his range. By spaying he can weed out his scrub stock, keeping it all down to this grazing capacity and turn what is otherwise unproductive property into marketable and profitable beef. *Hanford Sentinel.*

## Eastern Beef and Mutton in Washington.

A carload of Eastern beef and mutton just received by —. First shipment of Eastern meat. Tender and juicy steaks, chops and roasts guaranteed all customers.

The above advertisement has been the means of stirring up considerable strife among the butchers in this city. Some time ago a few of the local butchers concluded that the native beef sold them by Spokane county ranchers was most too tough and stringy to suit the delicate taste of their better class of customers, and they accordingly sent East for their supply of beef, mutton and pork, the first shipment of which was received only a few days ago. The reasons given to a *Chronicle* reporter yesterday, as the cause of their refusing to use native beef at this time of the year is practical, if not satisfactory to the Washington cattle men.

Said E. T. Ansel & Mitchem, East End meat market: "We have just received our first carload of meats from Omaha. We pay a higher price for it than we would for native beef, but it is so superior in quality that our customers are eager to pay the difference in price. Eastern beef is all corn fed. Cattle are carefully attended to, and their growth is rushed with all speed. They are never allowed to rustle on the range for their food, and consequently when killed they make the best beef to be found. The grain of the beef is finer and the bones smaller. The ranchers in Washington and Idaho must put up their cattle and feed them during the winter months. They could turn their money twice by caring for their stock, and until they do improve the quality of their meat, they can never compete with Eastern packers." — *Spokane Chronicle.*

## A Large Slaughtering Concern.

Rodeo is the name of a creek on the east side of the bay of San Francisco, which flows through a valley made famous for many years as a favorite spot for roundups. Rodeo is now the name of a proposed town in that valley. The town is to be built around one of the finest stockyards and meat-packing establishments in the world. The site is 20 miles distant from this city and is on San Pablo bay. Corrals and sheds have been built. They cover 12 acres of ground. The sheds are spread over one-half the plot. A hotel has been erected. It is 175x125 feet in size and three stories high. The offices of the company are in the hotel building. Already five miles of railway have been built, connecting with the Southern Pacific system. About 20 miles of railway in all will be constructed. A wharf will also be built. It will extend out 2000 feet. A mammoth reservoir will be constructed. It will hold 3,500,000,000 gallons of water. The formation of the shores is especially favorable for the construction of the reservoir.

In connection with the stockyards, two large packing houses will be operated. One will be leased by William H. Silberhorn of Chicago, and the other by R. A. Harris of Omaha. A large number of residences will be built for the small army of workmen that will be employed. The company has about 2000 acres in the town site of Rodeo and will have it blocked out this summer. The new enterprise will in all probability be in operation by next November. The name of the company is the Union Stockyard Company of San Francisco. The capital stock is \$2,500,000, of which over \$1,000,000 has been subscribed. Only \$2,000,000 worth of stock will be sold.

The company is as follows: A. D. Sharon, Pres.; J. F. Bigelow, V. P.; R. A. Harris, Manager; William H. Silberhorn, W. S. Wood, P. Tormey of San Francisco, E. J. Wilson of Vallejo and A. S. Garrison of Sioux City, Directors; R. M. Hoffman, Sec. and Director.

Director Silberhorn said to a *Post* reporter this morning: "The Eastern directors have been here for the past few days to complete arrangements for pushing the enterprise through as quickly as possible, and, except myself, have gone home. I will remain for a short time to acquaint myself more fully with the wants for my meat-packing house. Our purpose is to give the Pacific coast a central market for live stock,

just as Chicago has given the West a central market. In fact, we will make San Francisco a second Chicago in the meat-packing business. We are not a combination or a trust, and have no intention of endeavoring to choke all opposition in our business. We want the buyers and sellers in live stock to have a central market on this coast, where a cash business will be transacted. We want to establish a place where slaughtering can be done for any and every person who wishes such work done. We will make our meat-packing houses and other factories consume all that portion of the carcass which is generally thrown away.

"There is no better part of the United States for hog raising than here in California. We understand that there has never been much of a market here for hogs. We intend to make the hog industry a lively one in this state.

"You can be certain that the effects of our enterprise will be felt in the balance of trade between the East and California. We will keep here several millions of dollars every year that have been sent East for canned meats and pork. We will also export a considerable amount of our production to South America and across the Pacific. We have come to stay and do a big business, and we have the capital and resources to assure success." — *Evening Post.*

## THE FIELD.

## Truck Farming in the United States.

From a census bulletin just received from Washington, we compile the following interesting information: For the first time the industry known as truck farming has been made a subject of census investigation, and the bulletin alluded to is a preliminary report thereon, prepared by Mr. J. H. Hale, special agent, under the direction of Mr. Mortimer Whitehead, special agent in charge of the Division of Agriculture "B" of the Census Office.

Truck farming, as considered in this report, is distinct from market gardening; the former is carried on in favored localities at a distance from market, water and rail transportation being necessary, while the latter is conducted near local markets, the grower of vegetables using his own team for transporting his products direct to either the retailer or consumer.

A summary of the number of acres under cultivation for truck-farming purposes and the products raised, given by districts, is herewith appended:

Districts	Acres.	Value of products.
New England	6,838	\$3,184,218
New York and Philadelphia	108,135	21,102,521
Peninsular	25,714	2,413,648
Norfolk	45,375	4,892,869
Baltimore	37,181	3,754,696
South Atlantic	111,441	13,583,516
Mississippi Valley	36,180	4,982,579
Southwest	36,889	4,979,783
Central	107,414	15,482,223
Northwest	1,083	1,004,791
Mountain	3,833	531,976
Pacific Coast	14,357	2,024,345
Totals	534,440	\$76,517,155

Upward of \$100,000,000 are invested in this industry, the annual products reaching a value of \$76,517,155 on the farms, after paying freights and commissions, realized upon 534,440 acres of land. There are employed in this industry 216,765 men, 9254 women and 14,874 children, aided by 75,866 horses and mules and \$3,971,206.70 worth of implements.

The following paragraphs are taken from Mr. Hale's report. Our space does not allow the reproduction of the detailed data relating to the products of the Southern States. We append the more general deductions. No doubt any reader who desires the full report can secure it by addressing Mr. Whitehead at the Census Office at Washington.

The production of fruits and vegetables for market has always been prosecuted with great success, in earlier days as a branch of general farming, and more recently as a specialty, known as market gardening. The business is usually carried on with a few highly enriched and thoroughly cultivated acres of ground and a rotation of crops, so grown that there may be a daily supply throughout a considerable portion of the year. The farms are usually within a reasonable driving distance of cities and towns, and the products are generally sold to the retailer, and in many cases, especially in the smaller towns, directly to the consumer.

Truck farming, although it also consists in the production of green vegetables for market, is distinguished from market gardening by the fact that, while the market gardener lives near a market and delivers his products with his own teams, usually producing a general variety of vegetables, the truck farmer lives remote from market, is dependent upon transportation companies and commission men for the delivery and sale of his products, and usually devotes himself to such specialties as are best suited to his soil and climate.

Previous to 1860 truck farming was an infant industry, unknown except to a very limited extent along the steamboat and railway lines leading out 50 miles or so from a few of the larger northern cities. Long Island, New Jersey, Delaware, and southern Illinois appear to have been at that time the leading truck centers of the country.

The rapid growth of cities and towns, however, and their consequent demand for a greater quantity and variety of vegetables throughout the whole year, the changed conditions in

the south after the close of the war, and the extending of old and building of new lines of railway, all combined to extend the business, until a very considerable portion of the vegetables consumed in cities and towns are produced from 500 to 1500 miles away. Instead of having vegetables in their respective seasons, by drawing upon the various sections of the country nearly all the standard vegetables are produced throughout the year. Late in the fall and early in the spring Florida and the lower Mississippi valley supply the eastern and central cities, and California those of the far west and mountain section, until the advancing season starts the growth and consequent supply up along the Atlantic coast and the great Mississippi valley, when the full season of midsummer in the north continues the supply until autumn frosts once more compel a return to the south, where a fresh crop awaits the demand of the market. While throughout the year, California, out of her abundant store, sends products to her own large cities and those of the Rocky Mountain region, and even as far east as Denver, Kansas City, St. Louis, and Chicago, the greenhouses of New England in early winter and spring supply the more tender vegetables that do not well withstand the deterioration of transportation, or are profitable enough to pay for the extra expense of their culture under glass. New potatoes, cabbage, cauliflower, garlic, and tomatoes have thus far been about the only products received at St. Louis, Kansas City, and Chicago from California, and these only in limited quantities in seasons when there has been a partial failure in the lower Mississippi valley and in Florida. During December and February of the present winter, snapper tomatoes came from California, and sold at prices that left a small profit to the grower, after paying the enormous express charges that must of necessity be charged for so long a haul but, with the further development of railways, faster trains, and lower freight and express rates, that State will be in a position to compete sharply for much of the trade beyond the Mississippi, for, besides the natural fertility of a soil that will grow almost every vegetable to perfection, she has a climate where winter vegetables are not likely to be occasionally cut off by frost, as in the south.

Being of so comparatively recent origin, and never having been brought within the scope of census statistics, there has been little or no guide in making the present investigation, which reaches out to thousands of farms and homes in every State of the Union, and while nearly all have been furnished special schedules upon which to make individual reports, and many of the leading truck sections and farms have been visited by special agents, it has not been possible at this time to gather as full and complete statistics as will be shown in the final reports; and yet, even these must, of necessity, lack some essential points of completeness, as many of the parties engaged in the business of truck farming keep little or no record of their business, and are not able from memory to furnish all the information desired. However, there has been a cheerful co-operation on the part of planters, marketmen, and transportation companies, and it is thought that valuable facts and figures have been obtained that will at least blaze the way for workers in future years.

Nearly 75 per cent of the truck in the United States comes from a belt of country along the Atlantic coast lying east of a line drawn from Augusta (Maine) to Macon (Georgia); from southern Georgia, Alabama and Florida; along the north and south lines of railroad in the Mississippi valley from the Gulf to Chicago, St. Louis, and Kansas City, and from the celery districts of Michigan and Ohio.

On the truck farms of the United States in 1889, by the labor of 216,765 men, 9254 women and 14,874 children, aided by 75,866 horses and mules, working \$3,971,206.70 worth of implements, upon 534,440 acres of land, valued at \$70,156,293.59, there was produced truck valued at \$76,517,155 on the farms after paying freights and commissions.

The following table shows the total acreage of leading vegetables grown upon truck farms of the United States:

Vegetables	Acres
Asparagus	37,970
Beans (string or snap)	19,807
Cabbage	77,094
Kale	7,062
Spinach	20,195
Irish potatoes	28,466
Beets	2,420
Celery	15,881
Cucumbers	4,721
Watermelons	114,381
Other melons	28,477
Peas	56,162
Sweet Potatoes	28,621
Tomatoes	22,802
Miscellaneous vegetables	82,601
Total	534,440

The gross income on truck farm products, after deducting commissions and charges for transportation, was \$76,517,155; the cost of labor (\$9,474,825.58), the cost of fertilizers (\$9,919,307.89), and the cost of seeds (\$1,419,633.50) being deducted, the net income is shown to be \$51,909,265.06, leaving a difference between the gross and net income of \$3,794,122.97 more than is accounted for. This difference is caused by various local expenses not reported on special schedules, but no doubt is nearly all for shipping packages.

The figures of gross income (\$76,517,155) are based upon those given by the regular census enumerators. Investigation through special schedules show that the income reported was



in nearly every case that received from the commission men, who deducted from 15 to 40 per cent from the gross value of products sold to pay costs of transportation and commissions on sales. Had charges for transportation and commission been included, the total gross income would have been in the neighborhood of \$95,000,000.

Taken in its entirety, this comparatively new industry is found to be in a healthy, prosperous condition. New sections are being developed from year to year that to a certain extent affect the prosperity of some of the older ones, and there is likely to be more or less shifting of trucking centers every few years, all upon advancing lines, however. New and better methods of culture, with the further invention of labor-saving machinery, must of necessity reduce the cost of production. Better transportation facilities will place the products of these farms in cities and towns more promptly in better condition and at less cost, while the ever-increasing population and wealth of the cities and towns insure a greatly increased consumption at satisfactory prices for first class productions.

### Bermuda Grass on Alkali Soils.

At the Fresno Farmers' Institute, held last week, Capt. J. G. Dawes read an essay, illustrated by specimens, concerning the growth of Bermuda grass on alkali spots upon which nothing but worthless "alkali plants" thrive. The essay is as follows:

"The question of alkali—what to do with it, how to neutralize it, and what will grow in it, which is now engaging your attention—is one second only to irrigation in importance to the people of this valley. It has been suggested to me, in this connection, that a statement of my experience with Bermuda grass upon alkali soils would be acceptable to you. My attention was first called to Bermuda grass by reading an account of its use in some of the Southern States in protecting and strengthening levees and river banks; also of its hay-producing qualities under favorable circumstances. I afterward read an account of its success upon the ranch of General Bidwell at Chico, and wrote to him for seed. He answered that he did not think it could be propagated from seed, but from the roots and stolons. I procured some of the roots and set them about three feet apart on the water-line of my ditches, the banks of which were continually breaking, causing me much damage and discomfort. The banks are now covered with a close, strong sod.

"I discovered that it would grow on the strongest alkali spots, and I soon had it growing over places near my house which were unsightly and as hard as a brick. These spots are now covered with a smooth green sod of Bermuda grass.

It is early in the season for me to show you large growths of the grass, for it does not start to grow till the frosts are over and warm weather sets in. A month from now the grass will be a foot high with stolons from one to three feet long. It does not, like the salt grass which it much resembles, spread underground and send up grass from the joints of roots, but spreads on the surface, sending down roots from joints of stolons, thus supporting itself as it pushes out, spreading in every direction from each new base of supply or hold which it takes upon the ground. On soil that bakes hard after being irrigated, its growth may be facilitated by covering such places with a thin layer of light soil or fine manure. The fine rootlets at each joint have then something to take hold upon.

It is valuable as a forage grass. Stock eat it freely; horses particularly like it and graze it close to the roots and even paw up and eat the roots. It will not afford as much food per acre as alfalfa, but it will grow where alfalfa will not, and is nutritious. As a lawn grass it is unequalled. Water does not injure it. Drouth does not kill it. Frost turns the grass yellow, but does not injure the roots. A few warm days without frost at night and it begins to turn green. It stands tramping upon better than any other grass, and should, therefore, on account of this, find a place in every play yard of the public schools.

Its hay-making qualities are not extremely good, but it may do better on better soil. I have tried it only on soil where nothing else will grow so well. I wouldn't recommend Bermuda grass in or near orchards or vineyards, for it spreads rapidly and is very difficult to eradicate, though if covered thoroughly, so as to shut off all air, it dies. With care, it can be kept within bounds as it spreads above ground and not under.

It does not, as far as I have observed, spread from the seed. I find it on my ranch only where it has spread from the roots or stolons. In planting the roots or stolons, it is necessary to have a part projecting above ground, or it will not grow. I am not able to say to what extent Bermuda grass will redeem alkaline soils, for I do not know which of the various plant foods it draws mostly upon, but I do know that alkali does not stand much in its way. I have but one fault to find with it—that is its sensitiveness to frost. The first frost turns it yellow, and it remains so until warm weather again starts it to growing.

In the discussion which followed, Prof. Hilgard remarked that in loose sandy soil, the grass was not so particular about surface running as it was on hard alkali spots. Other speakers also emphasized the need of care not

to allow Bermuda grass to get access to soil which was needed for other purposes, for experience had proved it well nigh impossible to eradicate it.

### Grass and Its Mission.

Next in importance to the divine profusion of water, light and air, those three physical facts which render existence possible, may be reckoned the universal beneficence of grass. Lying in the sunshine, among buttercups and dandelions of May, scarcely higher in intelligence than minute tenants of that mimic wilderness, our earliest recollections are of grass; and when the fitful fever is ended and foolish wrangle of the market and the forum is closed, grass heals over the scar which our descent into the bosom of the earth made, and the carpet of the infant becomes the blanket of the dead.

Grass is the forgiveness of Nature—her constant benediction. Fields trampled with battle, saturated with blood, torn with the ruts of cannon, grow green again with grass and oarage is forgotten. Streets abandoned by traffic become grass-grown, like rural lanes, and are obliterated. Forests decay, harvests perish, flowers vanish, but grass is immortal. Beleguared by the sullen hosts of winter, it withdraws into the impregnable fortress of its subterranean vitality, and emerges upon the solicitation of spring. Sown by the winds, by wandering birds, propagated by the subtle horticulture of the elements which are its ministers and servants, it softens the rude outlines of the world. It evades the solitudes of deserts, climbs the inaccessible slopes and pinnacles of mountains, modifies the history, character and destiny of nations. Unobtrusive and patient, it has immortal vigor and aggression. Banished from the thoroughfare and field, it bides its time to return, and when vigilance is relaxed, or the dynasty has perished, it silently resumes the throne from which it has been expelled, but which it never abdicates. It bears no hlazonry of bloom to charm the senses with fragrance or splendor, but its homely hue is more enchanting than the lily or the rose. It yields no fruit in earth or air, yet should its harvest fail for a single year, famine would depopulate the world.

## PUBLIC AFFAIRS.

### Village Improvement in California.

Dr. B. G. Northrup of Olnton, Conn., is well known throughout the country as an eloquent public lecturer on several themes, but probably his greatest work lies in the promotion of village improvement, in which he holds acknowledged leadership. We are glad to know that a new pamphlet of his on this important subject is likely to appear soon, and of it President D. C. Gilman of the John Hopkins University writes to the N. Y. Tribune as follows: "If a word from me will in any way promote its distribution and perusal, you are quite at liberty to say that I should like to have his pamphlet sent to every village and school district in the United States."

Dr. Northrup visited California last year and lectured to delighted audiences at several points. He also took opportunity to look up our progress in village improvement, and in a circular recently published by Hiram Orcutt of Boston, we are pleased to see this allusion: "Dr. Northrup has visited 42 States and Territories and aided in organizing over 400 Village Improvement Associations, which have done much in improving and building up towns. This movement has spread across the continent so that no State in the Union is now showing greater interest in village improvement than California."

In the Hartford, Conn., Herald of March 19th, we find an article by Dr. Northrup in which he makes the following reference creditable to California:

In California for more than a dozen years village improvement has been in the air—a wholesome epidemic. Various forces combined to intensify it, so that borough organizations did the needed work in many cases. Proofs of its prevalence long since reached me, in requests for plans and advice, to which the easiest and most effective replies were papers and pamphlets—prepared for that purpose—sent to individuals and prominent journals. Senator Stanford is responsible in part for this healthful "oreza," both by the adornment of his own homestead and town—Menlo Park—and the expenditure of \$10,000,000 on the great university, for which much more is pledged. It was a joy, even to a stranger, to observe the enthusiasm and gratitude which this unprecedented munificence has awakened throughout the State.

Berkeley's "Association for the Encouragement of Neighborhood Improvements," formed a dozen years ago, was the pioneer. The San Francisco journals strongly advocated this movement. In July, 1881 Edward J. Wickson, editor of the PACIFIC RURAL PRESS, gave an admirable address at the annual meeting of this association, which was printed and widely circulated. A letter just received from a professor in the State University says: "This association, though short-lived, was alert and vigorous, and introduced many changes, and, most of all,

implanted the idea of village improvement in the minds of all our Berkeleyites. It left us this most valuable double legacy—first, the implanted idea, and second, the visible result, that now gladden the eye and attract visitors."

Pasadena 16 years ago was a wild ranch and its only streets were sheep-paths. A "Village Improvement and Library Association" was organized ten years ago, which helped in forming wise plans for its future. It now has fine avenues and broad streets, without front fences, lined with palms, fern-leaf peppers, English walnuts and other choice trees. The little village has become a city of 10,000 population. The beautiful library building just completed by this association is henceforth to be liberally supported by taxation. The 40 miles of stone sidewalk, averaging eight feet in width, built within the last three years, are the best I have seen in a town of its size. It has no saloons, but so many improvements and so choice a community that it is fitly regarded as the model town of Southern California.

Among the many charming towns of this State others would be specially described did space permit, such as Santa Cruz, Alameda, San Rafael, San Mateo, Pomona, Riverside, St. Helena, Napa, Santa Rosa, San Jose, and Redlands last because the youngest. In 1882 F. E. Brown, a graduate of Yale, now an eminent hydraulic engineer, discovered the possibilities of the Bear Valley reservoir, which, in the face of enormous difficulties and cost, has become an accomplished fact, containing the greatest stored supply of water for irrigation in this country. This reservoir, together with the attractions of soil and climate, has already brought a great influx of industrious and intelligent people from the East, owning and cultivating small holdings devoted chiefly to the production of citrus fruits and raisins. Its population, already 2500, is rapidly increasing. The main work of the "United Workers for Public Improvement," formed less than three years ago, besides adorning homes, has been the erection of a fountain in the "Public Square," and improvements around it, and beautifying the "Garden" at the railway station.

Trees and ornamental plants have been set out on miles of streets, Mr. Brown's firm furnishing them at one-fifth the ordinary rates, and if need be, free. Similar liberality by friends of town improvements has been often shown, both East and West, and most of all by Adolph Sutro, who, in 1886 and 1887, gave 90,000 trees (45,000 each year) to the children of San Francisco (one each) requesting that they be planted in flower-pots, and later set out in open ground. These were small seedlings—of kinds best suited to the climate—chiefly pines, cypresses, acacia and eucalyptus. It was a privilege to see the young forests of this great tree-planter of the Pacific Coast, who has set out about 2,000,000 trees in and near San Francisco, and whose homestead grounds attract throngs of visitors. His interest in this work may be inferred from a single sentence in a letter giving the above details: "I hope you will succeed in encouraging tree-planting all over the United States, especially among the growing up generation."

## HORTICULTURE.

### State Horticultural Society.

The State Horticultural Society met yesterday in regular session at 220 Sutter street, the headquarters of the State Board of Horticulture. I. A. Wilcox of Santa Clara presided. Prof. C. H. Allen of San Jose, Timothy Hopkins of Menlo Park and Judge Tilden of Niles were elected members. The committee appointed to draft a memorial of the late W. G. Klee reported as follows:

Resolved, By the State Horticultural Society of California, that we have learned with deep regret of the death of Waldemar G. Klee, late Inspector of the Experiment Stations of the University of California, and for many years an active member of this society. Inheriting a slight physique, he sought in his youth, in the garden and amid plant-life, the strength that our common mother earth gives so freely to all who seek. Endowed with rare discernment, Nature's mysterious processes were his study and delight. At the University experiment grounds' order, system and thoroughness illustrated his ability and fitness for the duty so faithfully performed at the New Orleans Exposition for the State of California, in charge of the exhibit of her plant and floral wealth. Upon his election, unsought, as Chief Executive Officer of the State Board of Horticulture, he entered upon a broader arena of labor and observation. His enthusiasm and presence awakened horticulturists to the imminent danger of impending destruction to fruit interests and the grand possibilities of the future, and thoroughly organized efforts were initiated that have resulted in incalculable value to the State. Mr. Klee was the first in the United States who discovered the existence of parasites for the destruction of the dreaded cottony cushion scale (*Icerya purchasi*), which so long threatened the entire destruction of the citrus interests of California, and his investigations and correspondence in foreign countries inaugurated the mission of Mr. Albert Koebele to Australia, that produced such magnificent results.

His untiring zeal, fidelity and courtesy in the discharge of his official duties won for him many enduring friends; but above and beyond his public worth was the grand integrity of character, the pure and spotless life and tenderness of soul that blesses home and exalts our manhood. His childhood was rocked by the tempests of a foreign shore, but over his peaceful grave at Santa Cruz will flow forever the murmur of the boundless sea. In his death,

California has lost a valued adopted son, and the horticulturists of the State one of its most efficient and tireless workers. To his afflicted family we tender, from the horticulturists of California, our sympathy and consolation.—E. KIMBALL, EMORY E. SMITH, LEONARD COATES, Committee.

### Organization for Fruit Marketing.

Edwin F. Adams, of a special committee appointed at the last meeting, presented for consideration a plan of organization as follows:

Mr. President and Members of the State Horticultural Society: Your committee to whom was referred the subject of an organization for the purpose of securing uniformity of grading and packing dried fruits, and protecting its members by a trademark, respectfully desire that the following "plan" be read and discussed at this meeting. The plan has not been considered by the committee, who of course express no opinion upon it. The object of having it read at this time is to ascertain how much interest is taken in the subject, and to obtain for the committee the benefit of whatever ideas a discussion may evoke, before it engages in any formal consideration of the matter. Before spending a large amount of time on the subject, your committee desire to become assured that the fruit-growers of the State realize the importance of some action in the proposed direction and are prepared to give careful consideration to a matured report by the committee. A short discussion ought to give us some light on this point. Respectfully submitted, EDWARD F. ADAMS, Chairman.

Plan for an organization of fruit-growers and packers, for the purpose of securing to its members uniformity in grading and packages, the advantage of the advertising done by the association, and protection from fraudulent practices affecting the standing of California Dried Fruits.

An incorporated association, sustained by annual dues and by fees for the use of brands and stencils, which shall not buy or sell fruits, but whose sole objects shall be as follows:

1. The establishment of grades, by accurate description for all grades of California dried fruits.
2. Such advertisement of those grades, in Eastern papers, as from time to time may be found necessary to make them familiar to the trade and the country.
3. The ownership of a patented trademark, for use by members only, under such regulations as may best tend to secure it from improper use, and ensure that the name and address of the members packing the fruit shall accompany each package to the consumers hands.

These regulations might be something like the following:

1. Sell no brand or stencil to any member. Rent them only.
2. Require from each member obtaining a brand or stencil, a written pledge, to send out no fruit under the association trademark except in accordance with the rules of the association.
3. Make these rules very simple; let them be only, A. Grading according to association standard. B. Member's name and address on outside of each package. C. Two copies of the advertisement of the association, containing member's name and address, with full description of the established grades of all dried fruits, as fixed by the association, to be placed in each package, so separated that both cannot easily be removed from the package till the contents are used.

Such advertisements to be furnished to members at the cost of printing in such members' names.

The penalty for misuse of the trademark to be expulsion from the association, withdrawal of stencils and brands, and such legal penalties as may be found possible.

4. The sale, to members only, of fruit sacks of standard size and quality, printed with the association trademark and the member's name and address.

5. The prosecution to the full extent of the law and at whatever cost all fraudulent practices calculated to injure the standing of California dried fruit.

It was agreed to discuss this subject of organization at the next meeting, April 24th. All growers or packers having views on this subject are asked to communicate them at that time or before to Secretary E. J. Wickson, Berkeley.

It was also decided upon motion that Prof. C. H. Allen of San Jose be requested to submit to the society the results of recent investigations into the sale of fruit alleged to be Californian at the East. This subject was presented in part to the society at its December meeting.

### Insect Pests.

Capt. H. A. Brainerd of the Santa Clara Valley, San Jose, read an essay on the treatment of fruit pests, which was published in last week's RURAL.

Judge Stanley asked for advice concerning his orchard of three-year-old prune trees, the roots of which were badly affected with knots. A discussion followed in which many took part, the conclusion being that trees which have knotted roots, if not badly enough affected to arrest satisfactory growth of the top, may still become good bearing trees. Judge Stanley was advised not to nuproot his trees, but to take good care of them, and the chances are good for the orchard to prove profitable in spite of the disease.

E. M. Ehrhorn, President of the newly organized State Entomological Society, announced that the society would hold its first quarterly meeting on April 24, following the meeting of the Horticultural Society, and invited the horticulturists to attend the meeting, which it is believed will be very interesting. On motion of E. E. Smith, the society decided to adjourn at 2:30 on the afternoon of April 24th, to give members an opportunity to meet with the entomologists.



## PATRONS OF HUSBANDRY.

In our Rural Press Official Grange Edition, issued every week, will be found additional matter from this and other jurisdictions, of interest and importance to Patrons. Any subscriber who wishes can change free to that edition.

## The Master's Desk.

R. W. DAVIS, W. M. S. G. OF CALIFORNIA.

In essentials unity! Never before in the history of this Government was there better opportunity for the farmers of America to protect themselves than right now. The Grange, with its 24 years of work, has done more than any one organization to educate the farmers to a full knowledge of their rights. The Grange has done its full share in exposing the tyranny of corporations, thus bringing to the attention of Congress and the world the wrongs which have been written in our laws, whereby the rich are protected while the poor are down-trodden by the laws. If the farmers of America will but stand by their colors, for the next two years, and not be deceived by party politicians, there will be such a change in affairs political as will surprise the oldest inhabitant. The members of the Grange will be advised, from time to time, of these important measures. Stand by the ramparts, Patrons, and when election day comes, don't vote for any men who have ever betrayed a promise, or who are not the outspoken friends of the industrial classes. We don't mean the men who favor communism or socialism, for those men are not friends of soil-tillers. But vote only for men to hold office who are identified with the bone and sinew of the land. Remember, "In essentials unity."

Bro. Don Mills, Past Master of Bennett Valley Grange and formerly Assistant Secretary of the California State Grange, has been engaged to go to the "front" in the work of planting Grange seed. He is duly authorized to organize new Granges and to reorganize dormant ones. In the name of the State Grange of California, I ask that every courtesy be shown and all possible assistance given him by the members of the Grange, and thus aid in the work of building up the Order we all love so well.

Do you want to go to the Oregon State Grange next May, *provided the round-trip fare is reasonable*? If so, send me your name and P. O. address, so that you may be further advised in due time.

Be generous; be cultured; be positive; be polite; be sincere; be just; be honest; be loyal to right; be guarded in words; be sincere in all you do or say; be temperate; be zealous; be industrious; be economic but not stingy; be a worthy man or woman, and you will have a hold on humanity that no enemy can destroy and no foe but death undermine; and even when called from earth your friends will be left to class you with the blessed—aye, an honest man and a pure and spotless woman are jewels in any sphere. Be one; you can if you so will.

The paper on "Truck Farming," by J. H. Hale, P. M. of Connecticut State Grange, is a valuable contribution to the census of 1890. His work has been faithfully and intelligently done, and reflects credit both on Bro. Hale and the Order of Patrons of Husbandry.

The press throughout the land all agree that the Grange is not dead. Who ever thought the Grange had died? Surely not any one who reads! It is true some subordinate Granges have surrendered their charters, but not one State Grange has given up its organization—oh no, the Grange is not dead nor yet sleeping. It is the most successful farmers' organization in the world, and you, kind neighbor of the farm, ought to belong to the Grange. If there is no Grange in your vicinity, organize one! Send for Declaration of Purposes and other documents. They will be furnished free on application.

The Trade-Card system seems to be favorably received. Do you understand your privileges and your duties under this new arrangement?

Bro. F. B. Logan, who is at the front in Yolo and Solano counties, reports the outlook cheering and promises some new Granges soon.

You should begin now to arrange to attend the next session of the State Grange. Unless signs fall, it will be one of the most pleasant and profitable sessions ever held in the State. Remember, Haywards, Oct. 6, 1891, and not Oct. 1st, as printed on cover of Journal of last year's session.

The love of country is one of the important lessons taught in the Grange. It is impressed by both precept and by example. Patriotism is a cardinal virtue.

Before you are entitled to a trade-card your dues must be paid in advance, otherwise the Secretary has no authority to issue the card.

Sonoma County Pomona Grange will confer the 5th degree in full form at next meeting, April 15, 1891.

Miss Maggie Burns, Worthy Flora of Eureka

Grange, at Auburn, Placer county, deserves especial praise for her efforts to celebrate the season of flowers. She has kindly and wisely agreed to take charge of affairs at the meeting in May. We know Sister Maggie will make a success, for she does not know the word fail. Won't the Worthy Flora of each Grange do likewise? Call on Sister Flora of the State Grange for suggestions. A short program suggested by Worthy Flora of the State Grange might prove helpful to each Flora in California. In due time we expect to hear that Pomona and Ceres in each Grange will have their day. Meanwhile suggestions from State officers will be in order.

## Organize a new Grange in your county!

The Grange is not a new candidate for your favor. This organization is 24 years old, and is noted for conservative, honest, progressive, straightforward conduct.

When the tide runs strong, or when the storm rages fiercest, the men at the oars have to "pull together." If they make any headway. Farmers have the oars in their hands, and they can right many wrongs if they will pull together. Why should the farmers not have seats at the first table? They furnish all the supplies; they pay the cook; they dig late and early; they are sober, industrious and economical. Then, by consent of action, let's be at the front, claiming what is right for ourselves and for others, and opposing oppression from any and every source. Right wrongs no honest man, while wrong injures both the weak and the strong. Farmers, man the lifeboat, she is a part of the Grange fleet, and let's all pull together and pull for the shore! Join the nearest subordinate Grange, and get private instruction in the use of the oar.

Santa Rosa and Merced Granges have taken the necessary steps to form juvenile Granges. Merced sends a charter list of 22 juveniles of the farm. Full particulars for organization of juveniles will soon be ready. In the meantime, get up your lists.

Are you a Keystone in the Grange Arch of your section?

The Rough Ashler, you know, was refused by some of the builders, but it afterward became the corner-stone of the structure. Moral—Don't refuse any good material, no matter how rough it may seem.

Fellow-farmer, the Grange is your friend. Are you its friend? If not, why not?

## Organization means success.

Producers must co-operate if they will advance.

Black-list the men who voted against the bills presented to the Legislature in the interests of the industrial classes.

Do you know what the Grange has accomplished? If not, don't say "it has not done anything."

Do you believe in moral, social, political and financial reforms? Do you want better men in official stations? If so, join the Grange, and help bring these reforms to your door, so that you and your children may get the benefits thereof.

Do you want a Grange Organizer in your county?

## For Oregon.

Our Worthy Master is making a splendid effort for a fraternal visit to the Oregon State Grange, which meets at Hillsboro, May 26th, 21 miles from Portland, the metropolis of that grand State. It will be a delightful trip going and coming. A ride through the Willamette valley in May and June is equal to a summer jaunt among some of the most delightful, verdant hills and vales of New England.

A stop should be made at Salem, the capital city, the home of Oregon's universally esteemed Past Master, Bro. R. P. Boise and family.

Let all who can send their names to Worthy Master Davis for the trip, confident of a truly good time.

## Yuba City Grange.

Yuba City Grange had a rousing meeting on Saturday last. Degree work had been set aside for business of which a large amount was transacted. Complete arrangements were made for holding the

## Annual Reunion of the P. of H.

In Yuba City to take place on Friday, May 1st. The Master of the State Grange has been invited, and will doubtless be present; other prominent speakers are also expected. Of course, everybody is invited, and all that come will have a good time as these gatherings have always been very successful. EUREKA.

Yuba City, April 6th, 1891.

TULARE PICNIC.—We understand good progress is being made in perfecting arrangements for one of the best picnics of the year by the Grange and Alliance of Tulare county. Able speakers have been invited. Further announcement will be made in due time.

## Help Our Nebraska Brethren.

Dear Sister Matrons of California:—One of the beautiful features of the Grange is to freely dispense charity to all mankind, not necessarily in dollars and cents, though that is also implied, but in that spirit of forgiveness that spreads its mantle of whiteness over the misconceptions of mind and heart of our brothers and sisters and guides them from the brink of error and selfishness into the humble paths of benevolence and progress.

Now comes a call for material charity, and if ever the cause to be pursued for woman's work in the Grange was dim or uncertain, that uncertainty is now dispelled by the wall of sorrow of our brothers and sisters from unfortunate dronth-tortured Nebraska—a cry which cannot fail to touch the heart of every true Patron in the land, and while it touches the heart, let it sink deep enough to also touch the pocket.

It is earnestly requested and fervently hoped that every Woman's Work Committee in every subordinate Grange in California will devise their own ways and means of contributing at least something for the relief of those suffering Patrons, who, after exhausting their best efforts, could only stand idly by and witness the annihilation of their last hope by a dronth so vindictive as to shed not even one tear of sympathy.

E. Z. ROACHE,

Chairman Woman's Work Com. Cal.

[Further information on this subject appeared in the RURAL of March 21st.—EDS.]

## For Tulare and Way Places.

When Bro. Roache, W. O. of S. G., visits Tulare picnic May 9th, a good opportunity will be afforded Granges at Merced, Plainsburg and Selma to receive a visitation, if they speak in season. We hope our Worthy Overseer will also have time to spend several days at various points on the line to assist in working up new Granges, if his services are requested. Now that the trade-card system has been adopted, it seems easier to secure new Granges. Also to revive old ones. Will some Patrons of Lacerne and Hanford Grange call Bro. Roache on such a mission? Both Granges are located in a rich and progressive section of the State, have excellent members, and should become large and prosperous bodies. No matter how many other organizations exist in any farming district, the want is not filled without a good Grange. Do not forget this.

## Overseer Roache for Tulare Picnic.

EDITORS PRESS:—I see by the last PRESS that the Tulare picnic is set for May 9, which will be as convenient, I think, as the date I mentioned. We have just had a splendid rain, which makes all things beautiful.

Watsonville, April 7. A. P. ROACHE.

[Bro. Roache's attendance at the picnic insures a good Grange and patriotic address. In the above note from Bro. Roache, he remitted money for several new subscribers for the PRESS, which shows his kindly appreciation of our effort in making the paper the farmers' paper of the coast. Bro. Roache's example is deserving of being followed by others.—EDS. PRESS.]

## Waterloo Grange.

EDITORS PRESS:—At its last meeting, Stockton Grange elected, initiated and conferred the second degree on one member.

Waterloo Grange, at its regular meeting Saturday evening, balloted on 13 applications, and all were elected. The class was initiated into the mysteries of the Order, and the second degree conferred on them. I have never seen the work done better than it was done that evening; the young Master of the Grange surprised the members and visitors by his manner of rendering the work, while most of the other officers had their work committed to memory. They will confer the third and fourth degrees on Tuesday, April 14th, the first anniversary of the Grange. W. L. OVERHISER

## Grange Picnics.

Name.	Place.	Date.
Enterprise.	Perkins.	Thurs., Apr. 16.
San Lucas.	San Lucas.	Friday, May 1.
Tulare.	Visalia.	Sat., May 9.
Sutter Co. Granges.	Yuba City.	Friday, May 1.
Placer Co. Granges.	Loomis.	Thurs., May 14.
Sonoma Co. Granges.	Bennett Val.	Sat., June 27.

Notices of other picnics will be added to the above list when received.

## Woodland and Vacaville.

From Bro. F. B. Logan we have word of a meeting to be held at Woodland on Friday, 11th inst, and an expected meeting at Winters on Thursday, 9th, looking toward the formation of new Granges; and from Vacaville he writes: "I have sufficient encouragement to warrant the announcement of a meeting for Saturday, April 18th, at 1 P. M., for the purpose of reorganizing Vacaville Grange."

LODI GRANGE, San Joaquin county, held a meeting in their hall on April 1st, and a large number of Grangers were present.—Lodi Valley Review.

## Depravity of California Politics.

Arthur McEwen in Oakland Times, March 15, gives the following interesting dissertation on California politics:

Yet, after all, why should the depravity of Elwood Bruner excite anybody's surprise? He comes of a good family to be sure; his father is a clergyman, and all his connections are respectable. But he has been in California politics from his youth up. That California politics are worse than politics in other States, I am not ready to affirm, but I do know that California politics are criminal. Bruner is a lawyer, and early manifested an inclination for public life. Of necessity he soon learned that the path to distinction, to office, was not a clean one. He has been the District Attorney of his county, has been elected to the Assembly and became one of its leaders because of his superior intellect and acquaintance with political methods. But for this exposure he would doubtless have reached Congress. He was "on the inside" and being so he knew all about how men far more prominent than he attained their ends. He has seen gentlemen of wealth and undisputed social position deliberately making use of the vilest instruments. He has seen elections bought and the buyers held in honor. He has seen the Senatorship sold time and time again as openly as the Praetorian Guard of Rome sold the purple, and the purchaser enjoy the respect of his fellow-citizens. As a resident of the Capital and a politician, he has known that at every session many legislators sell their votes habitually. He has seen daily around the lobbies of the Capitol men whose trade it is to corrupt members, and whose transactions are as universally known as if they were brokers in a stockboard.

Why should a young man with this knowledge, this education, think when setting out on a public career that common honesty was a necessary part of his equipment?

Bruner is the natural, the inevitable product of the conditions in which he has lived.

Because of his eloquence he was chosen to place Stanford in nomination for the Senate a few weeks ago. He was aware that he was addressing a Legislature that had been elected by Stanford's money. He was rewarded with warm applause when he attributed to that great and good man every grace of mind and quality of heart that a Senator of the United States should have; but he could not himself have been under any illusions as to the ability and character of California's foremost citizen. He saw no member of the opposing party with the courage or sense to rise and challenge any of the laudations in his eulogy. He knew that the majority of the people of the State regarded the subject of his panegyric as a model of manhood, although the facts of Stanford's career are burned into the history of California.

On the whole, Assemblyman Bruner is not to be unreservedly condemned for thinking that he would be guilty of yielding to childish scruples had he refused to take that \$400. He is aware that very few of his fellow-members would have hesitated an instant under like circumstances. Many persons, now that Bruner is caught (the majority of the Investigating Committee found Bruner guilty of having received a bribe.—EDS. RURAL PRESS) express astonishment that he should have taken the money when he knew rumors were abroad that he was willing to sell his influence with the San Francisco Police Commissioners. That he should have run the risk merely proves how customary a thing bribery is at Sacramento. The rat which goes into the trap a thousand times and comes out safely with the cheese can hardly be called stupid if at the thousand and first visit it gets caught.

## The State Picnic.

Watsonville Grange has suggested a plan for organizing a State picnic to be held this year. No better project for an early benefit to the Grange and farmers, seems entirely practical.

In order to assist Watsonville Grange in its laudable movement, its communication will be considered by the Executive Committee and the best steps possible taken to start the ball rolling. There has never been so good a time to start a State, or Interstate, picnic and farm exhibition on this coast as the present, from our outlook.

## Executive Committee Meeting.

The regular quarterly meeting of the Executive Committee of the State Grange on Tuesday, 7th inst., was adjourned to Tuesday, the 14th inst., when a full attendance is expected and desired, at which time the regular business for the quarter will be considered. Any business Patrons desire to have brought before the Committee should be forwarded at once, or, preferably, present it in person.

PLACER COUNTY GRANGE PICNIC.—A Granger's Union picnic will be held at Loomis on the 14th day of May, and preparations are already being made therefor. The general Committee of Arrangements consists of Messrs. E. C. Badell, A. J. Spragne and S. Pilcher.—Auburn Herald.

WOODBRIDGE GRANGE, San Joaquin county, will confer third and fourth degrees at their hall on Tuesday, April 7th. The Patrons will enjoy a grand feast, and all members of the Order are invited to be present.—Lodi Valley Review.



## FARMERS' ALLIANCE.

SUBSCRIBERS wishing fuller information of the Alliance can have their names changed to the Grange Edition of the RURAL PRESS free, much to their advantage, this department being continued in the same.

From a San Joaquin Alliance Member.

EDITORS PRESS:—As the picnic time has arrived, who will take a hand and where will it be held in this county? At its meeting in Stockton on April 2d, the County Alliance appointed a committee to confer with the Patrons with a view of having a joint picnic in this county, so that the time and place will be definitely settled upon in the near future. The Alliance also appointed a Committee on Equalization of Assessments in this county which is to co-operate with the Grange Committee.

It would seem from an article that appeared in the Stockton Independent of April 4th that some of the merchants in Lodi are very much alarmed at the work of the County Business Agent of the Alliance in this county. They claim that he is taking orders and sending to San Francisco for goods and the merchants do not get a chance to shave the consumer, and consequently they would be compelled to leave the town when there would be nothing left but one or two blacksmith shops and the shoe-maker. It does seem pretty hard on the merchant that he cannot make from 10 to 50 per cent profit on the goods; but if the farmer has anything to sell, the merchant fixes the price on the product. Yet if the farmers attempt to fix a price on the merchant's goods, then there is a howl. I presume they will live through the terrible ordeal and that it will be all right when they get used to it, for the farmer has been used to this rule all his life.

AN ALLIANCE MEMBER.

Stockton, Cal., April 4, 1891.

## San Diego County Alliance.

EDITORS PRESS:—We have just closed the San Diego County Quarterly Alliance, held at Winchester (on the old San Jacinto plains). It was a large, enthusiastic meeting, where every one seemed full of determination to do business, and if possible at the same time make his neighbor happy. There were some good strong resolutions passed. All members present expressed a willingness to do all in their power to make the resolutions become a part of the laws of the fairest land on earth.

I will send the proceedings in time for the next issue of the PRESS. If there is anything in them that is not sound, I hope you or some one will point it out to us before our next meeting, to be held on July 7th, at Escondido, at which time we want one or more of our State Lecturers to be present and help us make it one of the grandest meetings that has ever yet convened in the southwestern corner of this great nation where the sun is ever shining, the people prosperous, and will be happy when the Alliance has accomplished its mission.

## A Prosperous Section.

It would be an injustice in a communication of this kind not to say to the readers of your most excellent paper that the people of Menifee and Winchester are a big-hearted, generous, industrious, thrifty community of farmers, and well may they be proud of their broad acres of fertile soil set to fruit, cereals and with an occasionally inclosed pasture, green with that native succulent alfalfa. Winchester and Menifee are each well located and have good schools and churches and everything that is required to make prosperous cities, except the population and manufactures which will be certain to come soon. Their irrigation system is fairly under way, and when that is done there will be but little more to do; all else will come.

Elsinore, April 3

L. J.

## Stanislaus County Alliance.

EDITORS PRESS:—Stanislaus County Alliance met at Good Templars' Hall, at Modesto, April 2d, President Vital Bangs in the chair. All local Alliances were well represented. We had a large meeting and there were many interesting discussions among the lecturers and others. At 12 M. the meeting adjourned to meet at 2 P. M. The ladies soon spread a bountiful dinner, which all partook of with keen relish. As soon as possible the hall was made ready for the afternoon session, and promptly at 2 P. M. the President's gavel sounded. All seemed to be in good earnest to work for the cause and much interest prevailed.

The meeting closed at 5 P. M., when the members left for their homes feeling that a pleasant and profitable day had been enjoyed.

MRS. JAS. KINNEAR.

Modesto, April 6th

## Orange County Alliance.

The Orange County Alliance held its quarterly meeting at Santa Ana last Saturday. There was a large attendance of the representative soil-tillers of the county, including their wives. A profitable meeting was had and a good social feeling was developed among those present. The importance of education was urged, especially through the reading of our State and National official Alliance organs.

D. EDSON SMITH, Lecturer.

Santa Ana, April 6.

## The Alliance in Santa Clara County.

We regret to learn from Sister Kate L. Squire, under date at San Jose April 5th, that she has been sick, but it is with pleasure that we receive from her the information that she is convalescing. From her letter we excerpt the following: The only time I have seen or heard anything of Alliance matters since I wrote you from Santa Rosa was when I attended the Santa Clara County Alliance at Gilroy on the 3d and 4th of April. It would have done your heart good to have met the earnest and interested workers in the good cause. I am not able as yet to go on with business, but am so much better that I am laying plans in the hope that I may soon be able to continue; but if I am not, I hope there will be found plenty of earnest workers ready to take my place. Almost every place where I have been so far my work took me among those who were subscribers for and enthusiastic admirers of the RURAL PRESS, otherwise I might have done more for you in getting subscribers.

## Peter Roth, Vice-President.

Bro. Roth, Vice-President of the Farmers' Alliance and Industrial Union of California, was born in Pennsylvania in the year 1848. When only 17 years of age he came to this State, settling in Yolo county, where he has lived since, engaged in farming and stock-raising. In his chosen industrial pursuit, he has been quite successful not only in worldly goods, but in surrounding himself with hosts of friends.



PETER ROTH, VICE-PRESIDENT  
F. A. & I. U.

The Alliance, in Bro. Roth, finds a staunch friend and a strong advocate.

Like his Bro., Hon. John Roth, Ex. State Senator of Tulare Co., he is of large stature, pleasing address, and evidently enjoys a large share of confidence in his own community.

## Niles Alliance.

EDITORS PRESS:—Niles Alliance, No. 258, was organized Jan. 29, 1891; meetings are held every other Monday evening. New members have been added at each meeting.

There are only about 115 heads of families, or voters, in the district, and of that number probably not more than half are eligible for various reasons.

The Alliance feels assured that within another quarter, the membership, which now numbers but 17 or 18, will have doubled.

Burdette Cornell visited the Alliance this week. In an hour's talk he ably handled the different questions or sections of the platform of the Order. He will visit our Alliance within the next ten days to give a free public lecture in the town hall.

At each meeting a paper is read by some one of the members upon questions of importance to the whole Order, or of local interest. The reading is then followed by a general discussion.

MRS. L. E. THANE, Sec.

Niles, April 2d

## Appointments by Col. Barbee.

The following list of appointments by Alliance State Organizer Col. Barbee came too late for last week's issue:

Place.	Day.	Date.
Lincoln	Tuesday	April 7
Sheridan	Wednesday	" 8
Rocklin	Thursday	" 9
Loomis	Friday	" 10
Newcastle	Saturday	" 11
Auburn	Monday	" 13
Roseville	Tuesday	" 14

## FARMERS' INSTITUTES.

## The Institutes at Tulare and Fresno.

According to announcement, a Farmers' Institute was held on Thursday of last week at Tulare, following the meeting of the County Alliance. At the afternoon session, Rev. N. W. Motheral of Hanford and I. H. Thomas of Visalia spoke concerning recent investigations they had made into the reduction of the San Jose scale by predaceous beetles, the *Chilocorus bifulvius* (or twice-stabbed ladybird), and the *Scymnus*, a very small black beetle which is preying upon scale insects in many parts of the State.

W. H. Murray of S. F. addressed the meeting on ramie culture, explaining the new bounty law for California grown ramie, and the aims of the company of which he is secretary. After discussion it was decided to appoint the following committee to investigate the subject further: Maj. T. J. McQuiddy, Hanford; Henry Hunsaker, Woodville; W. A. Simes, Farmersville; A. J. Woods, Wankena P. O.; E. M. Dewey, Porterville P. O.

On Thursday evening, Prof. Wickson gave an informal talk on entomology, illustrated with specimens. It was decided to hold the next Institute at Visalia, the subject to be fruit drying. Mr. I. H. Thomas of Visalia was chosen President and J. W. Mackie, Secretary of the Institute, with the object of making the organization permanent.

## Institute at Fresno.

The Farmers' Institute at Fresno on Friday

in different parts of the State. Kings river is freer from alkali than any river in the State, and the water is nearly pure.

Alkali comes to the surface by evaporation of water from the surface; if it remained at the bottom of the soil, it would do no harm. All damage from alkali is done by the accumulation near the surface.

Carbonate of soda is the most injurious ingredient contained in alkali, and is what is known as black alkali. The other ingredients—Glauber's salt and common salt ("white alkali")—are comparatively harmless. Hence the transformation of "black" alkali into "white" is the first thing needful wherever the former exists. This can be done by the use of gypsum or land plaster on the land, followed by irrigation.

This change, and the effect of black alkali on soils, were illustrated by experiments. Red litmus test paper is instantly blued by black alkali, but when the latter is first mixed with gypsum the paper remains unchanged in color. A dark-tinted soil shaken up with solution of sal-soda is discolored and the solution turns black, showing the injurious action of "black alkali" in dissolving the humus of the soil; but when this black fluid is mixed with gypsum the humus is again rendered insoluble, and remains in the soil. Again, a clay or adobe soil is rendered untillable by black alkali; gypsum, by destroying the latter, again renders it tillable. It also serves to retain the soluble phosphates in the soil. Hence, it is highly important to use gypsum on black alkali soil before attempting to get rid of the alkali by washing out by means of flooding and under-drainage.

There is but one way to rid the soil of white alkali, when that is necessary, and that way is under-draining. But when there is not much alkali, deep and thorough tillage may do all that is required. The formation of surface crusts must be prevented at all hazards. Sometimes there is only a trifling amount of alkali, but which keeps going up and down in the first three or four feet of the soil, by the alteration of rain and evaporation, and so perpetuates the damage.

At Fresno, the situation is somewhat peculiar. In early days there was no alkali far and wide; now the rise of bottom water has leached upward all the natural alkali of 40 feet of previously dry soil, and thus alkaline bottom water is found, especially where there is hardpan at three or four feet depth, from which alkali may rise to the surface and cause injury. For this there is no possible remedy but under-drainage at a sufficient depth; and this should be done on a comprehensive plan. It may be possible locally to drain into wells or sumps; this is now being tried at the Tulare Experiment station.

All through his lecture the professor was interrupted by members of the institute asking questions, all of which were cheerfully answered. His lecture was concise and free from technical terms, so it cannot fail as being of incalculable value to all his hearers.

"Bermuda Grass for Alkali Soils" was the subject of an interesting illustrated essay by Capt. J. G. Dawes, which is published in full on page — of this week's RURAL.

## Permanent Organization.

After due consideration, it was decided to permanently organize the Fresno County Farmers' Institute, with the purpose of co-operating with the representatives of the State University and of arranging Institute meetings quarterly. O. P. Laird was elected President; Mrs. L. H. Hatch, first vice president; R. B. Harlan, second vice-president; John G. Dawes, treasurer, and Mrs. M. B. Stewart, secretary.

On Saturday morning, committee reports were heard and the session enlivened by delightful vocal music from an invited quartette. Prof. Wickson delivered an address upon Entomology. On Saturday afternoon, the ramie discussion was continued, and Mr. Motheral gave an interesting lecture upon beneficial insects.

SILK CULTURE IN SAN DIEGO.—The members of the San Diego Silk Culture Society met April 1st. Arrangements for the opening of the cocoonery were duly discussed and in a most practical way. The necessary lumber for racks and trays was purchased by the appointed committee. The bill was paid by a pro rata assessment on the members. The Japanese who co-operate with the society in this experiment thoroughly understand the business and are very anxious to show to the world what San Diego can produce in silk. It is hoped the silk worm eggs will be here from Washington in a few days, as also some few from San Francisco. It is asked as a special favor that any person who either has or knows of any mulberry trees in the city or near it will let it be known to the society, if they will permit it to gather the leaves. A number have been engaged but more are wanted. The society will continue to meet weekly at the usual time and place, the home of Mrs. Carrie Williams, 445 Olive avenue.—San Diegoan.

FOR WORLD'S FAIR COMMISSIONER.—We notice that the Tulare Register and Fresno Republican are commending Capt. Thomas H. Thompson of Tulare county for appointment by the Governor as one of the California World's Fair Commissioners. The Fresno paper concludes its endorsement with these emphatic words: "He would worthily represent the valley and the State."

and Saturday of last week was conducted by Prof. Wickson of the State University with J. W. Mackie of Tulare as Secretary. Excellent preparations had been made by the local committee and a good attendance was secured; the members during Prof. Hilgard's lecture on Friday afternoon rising to 250 or 300. De Witt Hall, secured for the meetings is light, warm and agreeable. A pleasant hall is a great factor in the success of the Institute.

Prof. Wickson opened the meeting on Friday morning with an address upon the history, characteristics and accomplishments of Farmers' Institutes. The remainder of the morning session was occupied with discussions on sulphuring vines and blue-stoning wheat, in which many gave their experiences and observations.

At the opening of the afternoon session, Mr. Murray presented the subject of raisin culture, and the following committee was appointed to consider his propositions: T. C. White, John S. Dore, A. A. Weber, J. G. Dawes and J. H. Larue.

## Prof. Hilgard's Lecture on Alkali.

The chief topic of the Institute was "Alkali: its Causes and Remedies," by Prof. E. W. Hilgard of the State University.

Prof. Hilgard commenced his lecture by a chemical description of alkali, which is composed of three ingredients—common salt, Glauber's salt and sal soda. These ingredients are always in different proportions; very often any one of them may be missing entirely. A number of minor but highly important and useful ingredients are frequently found in alkali, such as potassium, saltpeter and phosphate.

The professor gave a graphic description of the manner in which alkali gets into the soil. Alkali is formed during the process of the formation of soil out of rocks, and exists near the surface only in countries where there is a deficient rainfall, being elsewhere washed into the country drainage.

By a carefully prepared chart, Prof. Hilgard illustrated the ingredients to be found in water





## Placer.

[Written for the RURAL PRESS by L. H. S.]

Over hill and dale, over knoll and hollow,  
This is the way the white sheep follow;  
The grass is tender, the clover is sweet,  
The mourning doves their woes repeat;  
This is the way while the spring is cool  
The children come to the hillside school.  
Treading the sun-bright waves of flowers  
Or breasting the west wind wet with showers;  
The oaks are putting their new leaves on;  
The lark is bursting his throat with song:—  
This is the way of Placer.

Under hill and height, down vale and hollow,  
This is the way the clear streams follow,  
Where the thirsty boy bends down to cool  
His crimson lips in the pebbly pool.  
The buckeye stretches its umbrous shade  
The timorous bunny seeks the glade;  
The orchard spreads in the little dale  
The pink and white of its fragrant vale;  
The young pines lean to the red hillside,  
And the white clouds over the blue peaks ride;—  
This is the way of Placer.

Over ridge and vale, over hill and hollow,  
This is the way the white sheep follow,  
The blue-grey collies trotting after;  
The woodcock shrieks with mocking laughter,  
He knows the rock where the eagles nest  
And the sly coyote seeks his rest,  
But the grass is tender, the clover is sweet,  
And the horse and rider follow fleet;  
The cow bells tinkle down the glen;  
And all is sweet for the haunts of men;  
This is the way of Placer.

## "Befo' de Wah."

## A Heroine of the Old South.

[Written for the RURAL PRESS by MALIK STAFFORD.]

"O missus! dey done sole 'im, dey done sole 'im, en dere ain't no help for it."

The words came quick, and sharp with agony, from the lips of a servant-woman of the light mulatto type, who rushed into her young mistress' room in a large and spacious planter's mansion in the southeastern part of Missouri. Throwing herself at her mistress' feet, she covered her face with her apron and rocked backward and forward in the intensity of her anguish.

"Sold who, Aunt Tilda?" inquired the girl, laying down her book and looking questioning at the woman, who seemed wild with grief.

"My po' Fred. Mars' done sole 'im to dat nigger-trader. Oh, my po' hoy!"

"Not Fred sold?" said the girl, discrediting the import of the woman's words.

"Yes Fred, honey, my own Fred, sole! He's down at de wauf, wid dat gang o' niggers, in da ole war-house, g'wine to take de boat fur New Orleans in de mawnin'. Jim, he's a-keep-in' watch o'er 'em an' Fred tole him to tell his po' ole mammy, so I could see him onct mo'. He kep' it mighty sly, did ole mars'; but I jes' felt it in my bones dat suttin' drefful was gwine to happen when I seed dat 'skulkin' nigger-trader at dinner wid ole mars', I did, honey."

The girl had risen, and stood as if transfixed with horror as she listened to this recital; then, with clinched hands and face glowing with excitement, she said:

"He shall not be sold, Aunt Tilda. He shall never be taken down South, not while there is a whole bone in my body. Where's papa?"

"Gone away, chile. O Laud!" rocking herself in her deep grief.

"Gone where? Do you know?"

"Yes, missus; he's done gone away down to de ole plantation on de hayon, wid dat 'test-able nigger-trader. Dey won' he hack 'fo' mawnin', when de boat starts."

"Not before morning? But are you sure he's gone?"

"Yes, Miss Sophie, chile; dey's hofe gone shore. Didn't I see 'em wid my own two eyes, an' didn't ole mars' tell me he's gwine to de ole plantation?"

"It would be too late when they return to appeal to papa," murmured the girl.

"Dat won' do no good, honey," said the woman, despairingly. "We kan't help it; he's done sole, an' in de mawnin' goes down Souf; will neber see po' Fred, no more, neber."

"Who did you say had the negroes in charge?"

"Jim, Sneas's Jim. Dat 'skulkin' houn' of a nigger trader, hired him in to watch and keep yard over 'em till he comes back to-morrow mawnin'."

A sudden thought struck the girl; she stooped low and whispered something in the ear of the grief-stricken mother.

"Only keep quiet," said she, reassuringly.

In a moment the dark face was lifted, a sudden flash of joy illuminating it, but the next minute it vanished.

"O chile, we mought be foun' out," in a hoarse whisper.

"I don't care!" was the reckless reply, so we save him."

"I doan keer what comes o'me, honey, ef dey break every bon in my ole body, hut you, chile, ole mars' would be drefful; he'd turn you out o' doaz; he'd 'herit you, or sumfin, would ole mars'."

"Never mind. I'll risk it," aloud; then in a whisper: "If the old yawl's at the willows, we're all right; only be quick. Go up stairs to the garret and bring down two old coats and hats."

"God bless you, Miss Sophie," murmured Tilda, as the door closed on her retreating figure.

Since the death of Major Wilmot's wife, when Sophie was but a babe, the octocon, Aunt Tilda, occupied more the position of mother to the young girl than that of servant, and Fred, her only child, a bright mulatto, with large dark eyes and curling black hair, was only a few years younger than Sophie, and had been her sole youthful companion, if we except the recent years spent by her in school in a Northern city.

It is therefore not to be wondered at that this sudden and overwhelming news brought out those heroic resolves that sometimes in the mildest and gentlest natures need only the circumstance and hour to kindle into activity?

"Oh this terrible, terrible traffic! Slavery! slavery! Would to God it could be blotted forever from the face of this earth. If it should ever be my fate to inherit the ownership of these human bodies and immortal souls, I'll free them every one; I will if I have to work and drudge like they do for my daily bread."

She looked every inch the heroine as she stood thus, her face set in its grand resolve and her superb figure tall and erect.

A soft step was heard in the hall. It was Tilda, who, with two long frock coats and two slouch hats, proceeded without delay to robe her young mistress first, then to envelope her own form in the large coat. Having done this, they noiselessly proceeded out through the long hall down the winding staircase and into the starlit night.

The old clock in the hall rung out ten as they passed out, and taking an unfrequented path in silence wended their way toward the steamboat landing, dignified by the name of "de wauf" by Aunt Tilda, which was half a mile down the river.

There was not a person abroad on the lonely hy-path at this time of night to intercept or question their movements, and a brisk walk of a few moments brought them to their destination.

A dim light was showing faintly through the wide crack of the old building, and halting under the dark shadow they listened. Some restless prisoner was tramping slowly up and down, the heavy and mournful footfalls and the clanking of his chains making ghostly echoes in the vast silence. There was no sound of cheerful conversation, and no ripple of mirth to mingle with the reverberating echo. Now and then a groan or a sob broke on the heavy night air. Sleep had not yet lulled to unconsciousness the miserable and grief-stricken inmates, torn as they were from home and friends and everything that made life dear.

They must do something to attract Jim's attention. "Keep quiet," whispered Sophie, then giving a low whistle they waited.

Some one came cautiously to the door and a voice said,

"Who dar? Dat you Sam?" Tilda put her lips to the wide crack of the door and whispered, "It's me Jim, kan't you let me in?"

"I kan't let no body in, Aunt Tilda ef twas de gubner hisself," dat's my awders.

"Yes hut Jim, Miss Sophie, she here and we just wants to see Fred. Open de doa Jim dat's a good hoy." "What Miss Sophie come down here in de night fur?"

"We want to see Fred, Jim, open de door a moment—you must, do you hear? said the clear voice of the young mistress.

Accustomed to obey, Jim carefully unbarred the door, and closing it behind him shuffled out.

"I dasset let none of de prisoners out, Miss Sophie—I dasset," protested that worthy.

"Prisoners," said she, "you miserable 'nigger!' You bring Fred out here, I tell you. Don't tell me you 'dasset.'"

"Yes'm," said he in haste, hut you'll hab to wait till dem ornery, pestiferous black fiell han's quits a walkin' and gits fas asleep.

"And Jim," she added vehemently, her eyes blazing in the darkness. "You dare ever tell that we, either of us, were down here to-night, do you hear?" With this she slipped a silver coin in the negro's hand, and chuckling he said:

"No, Miss Sophie, I'll neber kno nuffin' 'bout dis affair—no, not ef dis nigger gets whaled till de blood runs; neher, shore i'."

Stepping in, he barred the door as cautiously as before. A moment more the light was extinguished. They waited; it seemed hours. The night air grew chill, hut they could afford to wait if the end was finally gained. At last all was quiet, and the sonorous breathing of some of the prisoners told that some at least of the weary and heart-sick band had found temporary rest.

The deep silence was broken by a stealthy stir and a grating sound on the inside of the door like the gnawing of a rat. Their hearts beat fast; soon the heavy door creaked slowly open—enough to let out the slight figure of a youth. Aunt Tilda clasped him in her strong arms, and almost carrying him, led by Sophie,

the three sped swiftly from under the shadow of the house down the bank and under the willows. Here, as they had previously ascertained, the old yawl lay moored at its accustomed place.

"Jump in," said Sophie, casting a glance anxiously out on the broad and silent river. "There's not a moment to spare; shove off, Auntie, and you row while I steer."

With alacrity the youth, whose bewildered mind now took in the situation, obeyed, while the mother, with quick but trembling hands, untied the rope that held the boat, and giving it a hasty push, jumped in and grasping the oars began to pull away.

"Oh," said Fred, "I wanted so to see you before morning. How did you find out? It was so sudden. Jim said they were going off with us in the morning; he, that old trader, was going with us down South to sell us in New Orleans."

"Hush, speak low," said Sophie. "They'll not do it now, I fancy. But, Fred, you'd better get under the seat; some boat might come along."

"No, Miss Sophie, not this time o' night. Let me take the helm."

"No, I say, get under the seat. We can't be too careful."

"Bress de Laud, we's safe, 'pears like," was Tilda's pious ejaculation.

"Not quite," replied the young mistress, "we're off hut not over. Keep quiet and work for dear life."

"And freedom," murmured the voice under the seat. Teed, in a tone of entreaty, "Miss Sophie, do let me get out an' have holt of de oars. I'm stronger'n mammy."

"No," was the firm reply, "we can't take such a risk as that. You keep quiet. Some boat might come along, and we might be questioned. If we should, remember, I'm old Jim Biles, that lives down on Crow Point been over to Toblin's mill to get a grist, and Auntie you are drunken Sam Skinner, too drunk to talk, do you hear? said the young mistress, striving to smother a hysterical laugh that would bubble up spite of the critical circumstances.

"That's good," said the muffled voice under the seat.

"Sh! sh! sh! whispered Sophie, with a peremptory kick at the invisible voice. "There's a canoe as sure as I'm alive! Bend to your oars!"

"My Gaud, we're lost," murmured Aunt Tilda.

"Row," said the girl, "row for dear life, and don't you say a word. I'll do the talking."

The canoe had suddenly shot out from the bank on the same side of the river they had quitted. It came like an arrow through the opaque waters, a figure in each end of the craft.

In spite of her bravery, Sophie's heart was in her throat, and though she steered with a vengeance, the oars were powerless in mammy's nerveless grasp, and the big yawl drifted with the current. This brought the canoe close across her bows, and one of the men oiled out.

"Who goes thar thile time o' night?"

"Jim Biles o' Crow Pint. Who goes thar, yerself," was the gruff and rude rejoinder.

"Who ye got w' y'e, ole man?"

"Sam Skinner, too drunk to paddle. Sam, set up thar, you owdays'hus ole drunk. Can't ye paddle, so's to keep outen a feller's canoe?"

By this time the canoe had skimmed across and was nearly in the middle of the river. Both women, weak and trembling with excitement, rested a moment on their oars.

"Hurray!" ventured the voice in a smothered tone, hut ain't you a hero, Miss Sophie!"

"Sh, sh! he careful. I'm a coward, that's what I am."

"O Miss Sophie, you's jes a merole. De actnest actor as eber I seed. I clarf ore de good Laud, I neher would a knowed dat voice myself, neher!" hurriedly said Aunt Tilda.

But gathering strength, horn of hope, they bent themselves to their task, the regular noise of the oars in the negro woman's hands alone breaking the stillness on the wide and smooth waters. It was not long before the boat glided under the willows of the Illinois shore, and the prow touched the bank when all three sprang out.

"Now, said the girl, there is not a moment to be lost—the road due north, Fred, will take you to Judge Hilton's place, a large white mansion on the left side of the road. You will reach it about daybreak, if you travel briskly. Ask for him and tell him I sent you, and he will tell you what to do. Good-by, now. Make a man of yourself. Look sharp, for you're not out of danger yet."

The weeping mother threw her arms around the youth's neck and with many a "God bless you" and murmured word of endearment, pressed him again and again to her loving bosom.

"O Miss Sophie," whispered the grateful youth, "how can I ever thank you enough?"

"Here, wait a moment," said the young mistress, and taking from her pocket a silken purse, emptied the contents into the boy's hands. You may need this."

"O Miss Sophie," was all the bewildered youth could murmur. Then with a hurried but tender farewell to his mother, he sprang up the bank, and pausing once more to wave a last farewell, turned and was off in the direction of the road indicated.

The two women—one at least with tears in her eyes—stood watching the slight figure till it was almost lost in the deep shadows of the forest, then brushing the tears away, and sigh-

ing, said to her companion: "Don't watch him outen sight, chile. It's onlucky."

"Oh! fie, Auntie," said the girl assuming a light air, hut with heavier hearts than either could have thought possible under the circumstances, they stepped into the yawl, pushed out into the stream and were homeward bound. Each was busy with her own thoughts. Each was sensible of a loss—one of her willom playmate and faithful friend, the other of a treasure that made bondage endurable, and as he disappeared in the darkness of the woods, so had he disappeared from the horizon of their earthly lives, perhaps never again to meet face to face. How somber and lonely looked the dense darkness! How solemn and lonesome sounded the murmur of the ever-flowing river!

Sophie cast her eyes away across the river, the black shore with its fringe of slumbering trees, looking dreamy, dark and uncertain in the faint starlight. How broad rolled the vast flood from bank to bank, the bright orbs of night alone reflecting on its black and flowing bosom! How ohill the night air grew! How deep and dark the water seemed! She shuddered.

"O Auntie! how I wish we were across!" she murmured.

"We soon will be, honey," was the hearty and encouraging reply, and heading to her oars, she added: "I ken jes' row now, so I ken," and with hearty strokes she sent the yawl flying across the deep dark waters.

Neither Sophie nor Aunt Tilda were early risers the following morning; indeed it was not until after the sun was well up that Sophie having made a careful toilet descended to the breakfast room, where to her surprise, her father still lingered over his coffee; he in company with Finlay the trader having returned home an hour before.

She was not slow in perceiving a look of uneasiness and perplexity on her father's face and divined the cause. He merely looked up as she entered, saying, "Good morning my daughter," and continued to sip his coffee.

Some moments later, a hasty step was heard in the hall, and a man stopped before the door. He was a burly red-faced man with small black eyes, and disagreeable expression of countenance, with an abrupt and insolent manner he said:

"It's true, Major; that dod-rotted yellow nigger's gone."

"You're an're of it?" questioned the Major.

"Shore? Shore as death. He's clean gone, out for good, no whar to be foun'. I'll set the bloodhounds on his track. You don't keer 'em, I reckon?"

"Bloodhounds!" thundered the Major rising. "Do you mean to insult me, sir? I'll let you know I have more regard for my people than to keep such beasts."

"Oh, I didn't mean nothin'," said the intimidated Finlay. "I just thought you mought —." But the remainder of the sentence was cut short before the advance of the irate and insulted Major.

Sophie waited to hear no more. Hastily rising, she quitted the room. The Major, turning, marked with a puzzled expression the abrupt and unceremonious exit of his daughter, hut was too deeply immersed in the affair of the runaway to think long on the subject.

"Umph!" thought he; "the oraven! Wonder it he thinks I'd see him hurting my people with bloodhounds. He's mine yet—not a dollar paid on him! I hope to the Lord he'll escape, and I guess he's smart enough for that. With these thoughts, the Major arose and, lighting a cigar, sought the veranda. He did not seem at all anxious for the finding of the runaway, nor did he order the servants to assist, and if one could have read his thoughts, they might have been matter for surprise. Anyhow, as he walked slowly up and down, there crept into his face a pleased expression, a restful expression that had been a stranger to it since the transaction of the sale the day before.

While Sophie stood watching events from the window of her chamber, for Finlay would not abandon the search as long as there was hope, and had employed men and boys, on horseback and on foot, to scour the neighborhood and the river bank for miles along—while she stood thus, her mind in a state of restful thankfulness, she heard a gentle step on the floor, and the next moment was folded in the motherly arms of Aunt Tilda.

"Oh, chile, God bless you, you'e a angel on dis earth, shore!" Then, lowering her voice, "It's jest been awful, honey, ever aense dey come home. Dat ole rapscallion had all de niggers on de ribber tarin' np jack; hut it's all right, honey, we're at rest."

"Dey's been a tumin' an a foam' down by de ribber, in de quarters, in de woods, everywhere."

"De niggers all declar'd dey knowed nuffin' 'bout it. Jim said he was asleep; some of em said dey heerd de doa' open an seed a big light, an den dey covered thet faces an' quaked with fear. Ole mars' doan seem to trouble hisself much. He doan make our boys jine in de hunt. I guess dat old rapscallion of a trader won't come round here any mo' for likely yellor boys he be!"

Aunt Tilda could not conceal the satisfaction she felt. Her face was aglow with triumph, albeit there lingered in the corners of her mouth and the deep circles around her eyes traces of sadness and pent-up tears that her sore loss and consequent loneliness had brought.

Miss Sophie made no reply, hut her clear eyes reflected the anhlime resolve that the



night's adventure had only served to strengthen.

It was about a week after the affair of the runaway, and the excitement had abated and things had settled down in their well-oiled channels—that as Major Wilmot sat alone one day on the veranda, he saw the negro Jim shuffling across to the stables.

"Come here, Jim," called the Major. The negro reluctantly ambled near. "Now," said the Major, abruptly, "I want to know what you know about that runaway—Fred, I mean. How did he get out?"

Clar fore de good Land Mars Wilmot. I doan know nuffin bout it, "asserted Jim in the blandest earnestness.

"O you black rascal, don't tell me that; you know something?"

"Well mars, ef you won't kill pore Jim, I'll jes tell you all I knows."

"Go on you unmitigated liar."

"Well, when de niggers was all a hnttin an a raisin Ned, I stole down to de ole yawl. I seed footprints, jes made, an she was run hang inter de san; and de rope onfasten; I knows dat somebody tuck dat yawl, an went across dat ribber dat night. Dar was a right smart o' footprints. Dey tuck somebody ober, an den fotoh de yawl back. Dats all I knows."

"All?" said the master. "Yes sah! Yon may sink me plim inter de yearth if it ain't de trufe, de whole trufe an nuffin but de trufe," replied Jim piously rolling his eyes heavenward.

"You can go," said the Major. "It's just as I thought," continued he, after Jim had shuffled away. "Somebody set him free; somebody did what I ought to have done long ago, but who was it? Who was it?"

It was not until several months after this that Sophie made a full confession to her father of the night's adventure, and the important part she played in Fred's mysterious disappearance. She was prepared to meet her father's surprise, she was not prepared to meet the smile of pleasure and admiration with which he listened to the heroic adventure.

A long year of waiting on the part of good Aunt Tilda was at last rewarded by news of the free man. One day a letter in a quaint, unknown hand was received by Sophie. It bore the postmark of Canada, and the signature of Fred. In substance it was to the effect that after many wanderings and narrow escapes, he had gained the Dominion, and by the aid of a letter of introduction from Judge Hilton to a friend, had found employment and a home. Here as a free man, he was on the upward stride, his earnest ambition the freedom of his people, particularly that of his dear mother, which latter cherished desire was consummated a year later, when Aunt Tilda, accompanied on her journey by her beloved young mistress, sought and found with a heart overflowing with joy and thankfulness, the lad now grown to early manhood, whom she had watched with an aching heart disappear from view on that memorable night. Without lingering over the details it is enough to say that the "end found justified the means;" that the youth with a soul capable of the highest development, grew and expanded under the kindly light of freedom, and in after years when the down-trodden millions of his people cried out for the assistance of such as he, they found him foremost in the ranks for aid and counsel.

It was many long years after this event that as Sophie Wilmot having come into the possession of her father's estate, his goods and chattels, and having according to her grand resolve, freed every one of her people, she was won'to linger over the events of that never-to-be-forgotten night, and with her grandchildren gathered round her knee, would close with the words, her soft eyes gazing into the dreamy past: "Yes, children, that was the one grand adventure of my life!"

Chaff.

LOVER (doefully pointing to a piece torn from his trousers)—"Look at that, Your dog bit me." Sweet Creature—"did he? Poor little Fido; I suppose he is jealous."

FRIENDLY ADVISOR.—Cholly—"Aw, I wonder will the governor kill the fatted calf when I go home?" Maud—"If you value your life you hadn't better run any risks."

LIZZIE—"I ontend that tobacco degrades any man who uses it." Kate—"Well I don't know. I know lots of men who use it, and I don't think tobacco could degrade them."

AMERICAN MILLIONAIRE (in Paris proudly)—"My daughter is being waited upon by a Duke." Old Traveller—"Well, Dukes make excellent waiters. There are several of them in our restaurant too."

AN IRISHMAN was asked why his countrymen were so remarkable for blundering. "Faith," said Pat, "there is something in the air of Ireland, and I dare say if an Englishman was born there he would do the same."

"HENRY," cried Mrs. Von Toodle, grasping her somnolent husband by the arm; "Henry, there are burglars in the house. Get right up and go down!" "Utter nonsense, my dear, returned Henry. "You wouldn't have a man of my social position associating with burglars, would you? You astonish me."

DID your wife listen to your excuses for staying out so late last night?" "Oh, yes, she listened to me and then—" "then what?" "I listened to her."

YOUNG FOLKS' COLUMN.

Essay on Prohibition.

[Written by a Boy Eleven Years of Age.]

DEAR FRIENDS:—The subject on which I am going to address you is that of prohibition.

The bright star of temperance has risen in the East, and is now beginning to illuminate the West. It will never set in the West, but will hover over it, a mighty power that (in time) will have destroyed the saloon, and brought peace and prosperity to the land.

We boast that ours is the land of liberty, we say that we are free. The blood of every patriot thrills as he reads of the brave and gallant deeds of our forefathers in freeing themselves from tyranny. We children read of the deeds of the boys in blue, through the long and bloody years of the Civil War. The motto of our forefathers was liberty, equality and free and equal rights.

On these principles they made the Constitution of the United States. Our forefathers did the best that they were able, but it was like tempering a piece of steel. First it is not tempered right; then it must be tried again and again until it is perfect. So with the Constitution. It was not perfect at first; then amendments had to be made, and more and more until it is perfect. [We need a new clause in our Constitution, that of prohibition.] The defenders of temperance urge that prohibition is unconstitutional. How can that be, when everything is governed in this country by the popular will of the people? The friends of prohibition propose to crush the saloon by votes at the ballot box.

The men in this wicked business, engaging in the race for the almighty dollar, never stop to think how many souls they are dragging to ruin, how many men are staggering along the streets at night under the baneful influence of their own intoxicating liquors, how many weeping wives and widows, how many desolate homes, how many frightened children are awaiting the approach of their brutal fathers!

The saloon-keeper has his license framed in gilt and hung in plain sight on the walls of his saloon, showing that he is allowed to destroy and humiliate American citizens. He defies the star spangled banner by draping it on a whisky barrel, and disgraces the big national eagle by forcing him to stand on one of the hoops.

They tell us if a man wants to drink, let him drink and take the consequences; but he don't take all the consequences, the innocent suffer with the guilty. The mothers, wives, brothers, sisters and children suffer over the sad condition of their relatives, and they are not the only ones that suffer—the hard-working, sober, industrious citizens have to toil to erect jails and prisons, and to support the trials of men whom intemperance has made criminals.

The saloon grinds up 20,000 boys in the big cities of the United States of America. Do you contribute your share of boys to the saloons?

GORDON P. STAFFORD.  
Arcadian Heights, Napa Co.

Hans' Golden Eggs.

Gretchen and Hans were the little children of a German widow. She was a good Lutheran, and her husband had been a preacher of that faith; but he had died soon after coming to this country. He had bought with his scanty savings a little place in a small town, and the wonderful vegetables that the mother and children coaxed out of the one-acre garden, and sent to the great city near by, were their main subsistence.

Mrs. Meyer had had a bad cough all winter, and could not do her usual amount of sewing and knitting, so that spring found the family unusually destitute.

In October, Mr. Flack moved into a house beside them, and his only child, George, soon made acquaintance, through the garden palings, with the rosy-cheeked German children, and they were back and forth all winter; but as Mrs. Flack was quite an invalid, the children played in the nursery, under the care of the nurse, and she had never known much of them.

The day before Easter, the nurse-girl being gone, the three came to play in Mrs. Flack's room, and she heard the following conversation:

"I am going to have such nice Easter eggs to-morrow," said George.

"Ah, but when mine fadder was not dead, we too had the nice Easter eggs!" exclaimed Gretchen, sighing.

"I wish the old black hen would lay a golden egg the morrow morning, as you read to me," spoke up Hans.

"That was a fairy story, and it was not the true story," answered Gretchen.

"But the good Lord could make her lay one if he wanted to," persisted Hans.

"Ah! he could, but he does not any the more."

"In the Book, this morning, our mntter read that he make the money in the fish's month to pay the taxes."

"That was true when he was on the earth, but now that he is up in the skies, no more he does that way."

"He was no more strong on the earth than in the sky, and mntter says he knows we need

some shoes, else after the Easter we cannot go to the school, till comes the weather warm, and we go with the bare feet; at the night I shall pray the good Lord to let the black hen lay a golden egg," and Hans' great blue eyes glowed with excitement at the thought.

"A true golden egg would buy much of the shoes; it is but one dollar for each pair that wants Mr. Green's store for shoes," said Gretchen.

George had been listening attentively as well as his mother, but just then Mr. Flack, who had been away for a week came in; the children politely made their funny little courtesies, and saying "Goot morgen," went home.

That afternoon George and his mother had a long talk. He had two gold dollars, and he decided to give them to his little friends. His mother made a small hole in each end of some eggs; she blew the contents out, pasted a paper over one end and filled the shells with melted maple sugar, dropping a gold dollar in each of the two eggs.

When the sugar hardened she gilded the shells, and early Easter morning George slipped into the coop and laid them in the old black hen's nest. She was already on the nest to lay, and her cackling brought the children out. From behind a barrel George heard Hans cry, "Ah, but the good Lord has made the black hen lay two golden eggs, and now we can have our shoes!" Did I not tell you so he could if I prayed him?

And the apple-cheeked children pattered round in their stout shoes all the spring, and many a comfort went into the good widow's house, because of Hans' faith in "the good Lord up in the sky."—Sunday School Times.

DOMESTIC ECONOMY

Macaroni and How to Cook It.

EDITORS PRESS:—Macaroni with cheese, and macaroni soup, are familiar to you, but to learn all the variations in cooking it, go among the Spanish. After eating macaroni as they prepare it, you will use adjectives in its praise, as did an old Italian nobleman. The story runs that the dish was invented to please an Italian epouree, and his words of delighted commendation, "ma ca roni," became the name.

Some season macaroni with red pepper, some use tomato, but the Spanish put both in one dish. The red pepper grows stronger as it dries, and care must be taken lest too much be put in.

Many find it economical to buy macaroni by the box, for it is the foundation for many good dishes at a season when the question, what can I cook? is an important one.

The poorer pieces of dried beef may be disposed of as flavoring. Let the beef cook slowly with the macaroni for a long time, then take up the macaroni and throw away the beef; its nutriment is gone. If you wish to serve beef with the macaroni, cut fresh slices and let it cook only a minute.

Used with chicken in the place of rice, macaroni makes a palatable side dish.

If cooked slowly, macaroni may be eaten with cream and sugar.

If tomato vines are hung in a cool place, the tomatoes will keep till Christmas-time.

Quick Potato Soup.

Grate two or three large potatoes and stir them into boiling water salted. Soup stock may be used, but if only creamy milk be added on taking up, the soup will be light and wholesome. Serve with toast.

The Best Way to Cook Rice.

After washing the rice, put it into a granite-ware saucepan, salt it, and pour in boiling water to stand an inch above the rice. Boil hard for ten minutes or more, then set it where it will be hot enough to evaporate all the water, and the rice will be thoroughly done with no hard grains.

The following is a nice lunch dish that may be easily made on the breakfast fire. Put a teacupful of rice in enough new milk to make a quart when done. Sweeten, salt slightly, and cook in a double boiler. Flavoring may be added.

To use up cold hulled rice, stir into it two well-beaten eggs, season, and fry a light brown in hot butter.

Slices of cold bacon, dressed in whipped egg and fried, make a presentable breakfast dish.

Boiled Iceing.

A cupful of sugar to the whites of two eggs. Moisten the sugar with boiling water and holl without stirring until it will thread when poured from the spoon. Beat the whites to a very stiff froth and pour over it the holling syrup, stirring constantly. Let it cool before putting it on the cake. This icing will not need to be set in the oven for hardening after being put on the cake. ADAH F. BATELLE.

WHITE CAKE.—One coffee-cup of pulverized sugar, two coffee-cups flour, one teacup of milk, one-half teacup of butter, whites of two eggs, two tablespoonfuls of baking powder.

BAKED SMELTS.—Cut off the heads. Split and dip the smelts in melted butter, and then in flour. Lay on a pan in the oven. Bake from eight to ten minutes. Serve with eighth of a lemon and cayenne.

GOOD HEALTH.

ETHER DRINKING appears to be a new form of intemperance which is just now creating much excitement in Ireland. The London Times sets it down as the true source of most of Ireland's woes. That journal has given a very elaborate account of the new tipple, the very existence of which was almost unknown until quite recently. The drink is a very impure form of ether and the results are most deplorable in character. The use of this new intoxicant has as yet spread through only four or five counties, but its march is onward and it is thought that it will continue to spread until all Catholic Ireland is involved. Insanity is rapidly increasing where this drink is used, and the death rate among the children of the ether-drinkers is very large. In Drapertown, with a population of only 9500, it is said there are not less than 6200 drinkers. In five of the northeastern counties, including Tyrone and Derry, where there is a population of 350,000, there are said to be 46,000 confirmed drinkers.

THE NEW YORK PASTEUR INSTITUTE appears to be doing good work in the prevention and cure of hydrophobia. The institute commenced work in February, 1890, and according to the annual report recently instituted it had received 828 persons bitten by dogs or cats. Of these, 643 received wounds from animals which were not mad, consequently their stay was of brief duration. In 185 cases anti-hydrophobic treatment was applied, the fact of the animals inflicting the injuries having hydrophobia being either clinically evidenced or proven by inoculation in the laboratory, and in numerous cases by the death of other persons or animals bitten by the same dogs. No death occurred from hydrophobia among the patients inoculated. Indigents were treated free of charge. Only 81 patients were received from the State of New York. The balance were from 25 different States, one going from Arizona and one from Canada. The result of the treatment has been a most perfect success.

CONSUMPTION AND CANCER.—The use of the lymph cure for consumption in this city is now generally conceded to be a failure, and we understand that there is now no especial call for treatment; and since the Koch cure for consumption has got the go-by, Cook's cure for cancer is beginning to attract increased attention among many of the more considerate of our medical fraternity. The success attending the treatment of several very pronounced cases now in hand is proving a most agreeable surprise to many deeply interested persons, among whom are several physicians. We are assured that this cure will soon be taken up and thoroughly investigated by persons whose report, when made, will be most unhesitatingly accepted as beyond dispute. That it will be feasible goes without saying.

THE ANT'S JAW.—The grip of an ant's jaw is retained even after the body has been taken off and nothing but the head remains. This knowledge is possessed by a certain tribe of Indians in Brazil, who put the ants to a very peculiar use. When an Indian gets a gash cut in his hand, instead of having his hand sewed together, as is done in this country, he procures five or six large black ants, and, holding their heads near the gash, they bring their jaws together in biting the flesh, thus bringing the two sides of the gash together. The Indians pinch off the bodies of the ants, and leave their heads clinging to the gash, which is held together until the gash is perfectly healed.—Medical Record.

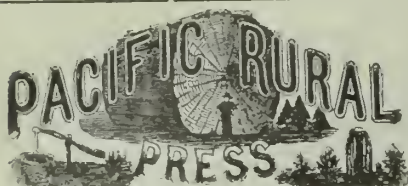
CARE OF THE BRAIN.—The brain stands the most abuse of any organ in the body. Its best tonic and stimulant is success. The worst and most depressing thing to it is failure. The most injurious effects come by using stimulants in early life. Young people should never use liquors, tea or coffee. The latter two may not exactly do harm, but they are conducive of no good. They act mostly on the brain and injure its growth very materially. Abundance of sleep is necessary. Eight hours is not more than enough. Sleep is the time of relatively lowered expenditure and increased repair.

THE BLACKENED TEETH of the Malays and Siamese are not produced, as has been supposed heretofore, by coating them with a mixture of betel and lime, but by rubbing the teeth with a paste made from charred cocoanut kernels. This is carefully applied to the teeth again and again, until a black varnish hides the natural white.

HYDROPHOBIA LONG DORMANT.—A telegram from the town of Mexico, in Missouri, says that William Garner, who was bitten by a mad dog about 20 years ago, died on the 25th ultimo. He was so violent during his illness that four men had to be kept with him all the time. His sufferings were terrible.

LOSS OF BODILY MOISTURE.—We lose two pounds of water in 24 hours by perspiration, and the more we perspire the cooler we become. There are 27,000,000 pores on the surface of our bodies, which, if placed in line, would extend 28 miles in length.





A. T. DEWEY.

W. B. EWER.

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## Business Announcements.

(NEW THIS ISSUE.)

Steam Plowing and Harvesting Outfits—Benicia Agricultural Works, Benicia.

Incubators and Brooders—Pacific Incubator Co., Oakland.

Mowers and Rakes—Frank Brothers.

Ro-in Wash—Woodbury Oil Co.

Notice to Dairymen—P. M. Sharples, West Chester, Pa.

Spray Pumps—Wainwright Spraying Apparatus Co.

Gumtree Cattle—S. M. Wilbur, South Pasadena.

Sale of Trotting and Road Horses—Killip & Co.

Manilla Roofing—J. F. Wyman.

See Advertising Columns.

## The Week.

The rains of Monday and Tuesday covered a wide area of the State and were very acceptable. As usual the amount of precipitation was various from an inch and a quarter at some points of the bay of San Francisco to a small fraction of the great valley. The rainfall at most coast locations and in the northern part of the State is now adequate for crops and no doubt some heavy yields will be reported. There is, however, a larger area over which yields on unirrigated lands will be exceedingly light unless we have a succession of showers. It will not be wise to believe stories of large grain surpluses which are industriously set afloat after every shower at this time of the year. They may be realized, but the chances are

against it. Still, with an advance in values which should come, according to all features of the situation the world over, it is quite likely that the money which the State will gain for the year's work will be gratifyingly large.

Frosts have been doing much injury to the peach and apricot in wide valley situations, and the aggregate is likely to be considerably reduced on these two fruits.

## The World's Fair.

By a law enacted by the recent Legislature, the Governor was authorized to appoint a Board of World's Fair Commissioners as a controlling body concerning all matters wherein this State is interested and to control the expenditure of the \$300,000 appropriated for California representation at the Exposition. Governor Markham has named the following gentlemen to constitute the board: First district, John Daggett of Siskiyou; Second district, Robert Murray of Nevada; Third district, A. T. Hatch of Solano; Fourth district, Irving M. Scott of San Francisco; Fifth district, James D. Phelan of San Francisco; Sixth district, L. J. Rose of Los Angeles; Seventh district, Thomas H. Thompson of Tulare.

These commissioners have been selected to represent the State geographically and her leading industries as well. Live-stock, mining, fruit-growing, manufacturing and general farming and progress in land development are believed to be well covered by the appointments made, and certainly the men chosen are widely known, not only in their own regions, but over the State at large.

The progress of the World's Fair enterprise seems to be fairly active. The National Commissioners from California, who are now in Chicago, do not agree among themselves as to who should be chosen for the headship of the horticultural departments of the fair, the candidate who has been generally appointed here has apparently been thrown out, and it seems to us altogether unlikely that the appointment will go to a Californian in view of this discord among our representatives, but this point is not settled yet.

According to recent reports the different States have appropriated nearly \$1,500,000 for the purposes of State exhibits, and there are other amounts still pending in the Legislatures of the different States. So far the California appropriation of \$300,000 is the largest made by any State. States which have defeated appropriations are as follows: Alabama, Arkansas, Kansas, Oregon, South Dakota, Tennessee and Texas.

Various comments upon the anticipated influences of the great fair of 1893 are being made. The following is a general view of the case which certainly has much force. Greater than even the reciprocal advantage of education between producer and manufacturer, American and foreigner, the Exposition as a unifier of the people of the United States will amply repay whatever money be spent in its preparation. East and west, north and south, the people of this country are gradually becoming provincialized as the process of local development creates new centers of interest apart from the capital or metropolitan cities. In the crowded cities of the East hundreds of thousands of people live and die in the belief that the Great West is still a rowdy wilderness peopled only by uncouth, semi barbarians, and in like manner in many Western cities the idea of Eastern civilization is indelibly associated with that of effeminacy. North and South in like manner are each of them unknown countries to a large percentage of their opposite people. To efface this sectional feeling, the World's Columbian Exposition will be an agent of incalculable potency. Mingled together in one common ground, summoned in honor of an event equally beneficial to all, stimulated by individual interest and local pride, protectionist and free trader, manufacturer and farmer, Easterner and Westerner, Northerner and Southerner, American and foreigner will join hands to make the World's Columbian Exposition an event of which not only the American people, but the world itself and the great nineteenth century may justly feel proud.

Figures of the possible attendance at the World's Fair are also being indulged in. The attendance at the Philadelphia Centennial, as shown by the number of admissions, was 9,910,996, and at the recent Paris Exposition, 28,149,353. Large as was the latter, it is expected that the attendance at the World's Columbian Exposition will equal it.

It is telegraphed from Chicago that Commissioner De Young has selected as a site for the California building  $1\frac{1}{2}$  acres of land nearly opposite the present boathouse in Jackson Park.

## Broom Corn.

It is reported by the handlers of broom corn in this city that the supply has proved unusually short and that prices have advanced to \$120 per ton. Local broom makers are importing western broom corn, which they can procure cheaper than the home grown article. Mr. L. W. Palmer of this city gives a reporter of the Post the following statement:

The brush produced in this State is grown principally along the banks of the Sacramento river, from Sacramento to Red Bluff. The seed is planted on the low, wet ground close to the levees, and is cast when the soil is a liquid mud. The brush grows quickly, and a stalk will reach the height of 10 feet in ninety days.

No white men cultivate the brush. Only Chinamen can manage it. You see, there is a great deal of malaria in that district, and white men refuse to run any risk. Then the heat is intense in the summer time, and 120 in the shade is the usual thing. The ground is so close to the levees that scarcely a breath of air reaches it during the hot period. Only Chinamen can stand that sort of thing. They do not own the ground they till. They only have it leased.

I don't think broom brush can be grown anywhere else in this State. An attempt has been made in Los Angeles county and also in Sonoma county to raise the brush, but nothing came of it. You see, the slightest breath of sea breeze affects the brush, and fogs and trade winds render it useless. Wet soil and dry air are essential to the growth of the brush. In Los Angeles and Sonoma the stalks grew well enough, but the fiber would not grow out. There was too much fog and trade winds.

About 800 tons are raised each year in California. A great portion of the product is shipped to Australia and the remainder is made up here. The Australians prefer California brush on account of securing it at less cost for freight. If they bought brush from the Chicago market they would have to pay freight on it to New York and from there around the Horn.

The average normal price of broom corn in this State is about \$65 a ton; the average price in Chicago is about \$75 a ton. The corn you see in my shop is from Chicago, because I cannot buy any here now for love or money. I will be forced to get my raw material from Chicago until the new crop is harvested next October.

We are not sure that all these statements are accurate—at least those relating to the growth of the plant in this State. It may be worth while to pay more attention to a crop of which the supply runs out midway between harvests, and for which there is export demand. Will readers who have grown broom corn in this State let us have their experience? It may be possible that some way can be devised which will not make it a Chinaman's crop alone. The subject is at least worth looking into.

## Hot Water for Smut.

The discussion on smut and bluestone at the Fresno Farmers' Institute reminds us that although it is not the sowing season in California, much interest pertains to this pest of the grain-grower. In a recent issue we alluded to the experiments at the East, which indicated that the use of heat to kill the spores of the fungus was more effective than the use of bluestone. The use of hot water is thus described in a bulletin from the Ohio Experiment Station:

Have two vessels, in one of which water is kept warmed to about 120 degrees Fahrenheit, and in the other to as nearly exactly 135 degrees as possible. Have a basket of wire netting, or a loose splint basket covered with cloth. The water baths must be large enough to admit this basket. Fill the basket with seed grain and immerse it in the cooler bath, keeping it there and stirring it around until all the grains are warmed, then lift it out and plunge it into the hot bath, where it should remain from 8 to 10 minutes, being stirred or agitated meanwhile. Then remove it and dip it into cold water or spread the grain out and throw cold water over it, after which dry it sufficiently for sowing.

The effectiveness of this method depends upon having the water hot enough to destroy the smut germs, which may be adhering to the outside of the grains, but not so hot as to destroy the germ of the grain. Experiment has demonstrated that this may be accomplished by soaking the grain in water of the temperature indicated. The reason for using two vessels is, that if one vessel were used, the water would be cooled too much by the cold grain to accomplish the purpose in view, or, if it were heated hot enough to do this, it would be so hot as to destroy the vitality of much of the grain.

We trust some of our grain-growers who have habitually used bluestone will prepare to try the hot-water method this fall. The method described above will answer well enough for a small-scale experiment, and if it prove satisfactory, some way for treating greater amounts of seed simultaneously can be contrived. Dip-

ping grain in a basket and giving, say ten minutes, to each basketful would make it necessary for some of our grain-growers to begin dipping now to get grain enough ready for next fall; but if the remedy is approved it will be easy to contrive more capacious receptacles and more speedy methods.

## Sergeant Barwick's Weather-Crop Bulletin.

The Legislature would not approve the plan submitted by Sergeant Barwick, the well-known Sacramento observer, for a system of State weather and crop reports. We believe now, as we stated frankly when the bill was introduced, that there have been few propositions by which the State could realize so much at so little cost. But the law-makers would not have it, and so Sergeant Barwick has decided that the State shall have the service anyway, so far as he can secure it by the aid of hard work and Government printing and the co-operation of Secretary Smith of the State Board of Agriculture.

We have before us the issue of the "Weather-Crop Bulletin of the California State Agricultural Society, in co-operation with the U. S. Signal Service for the week ending March 27, 1891." It is a large sheet bearing condensed reports from observers at 28 points in different parts of the State, and at the bottom of the sheet the deduction from the individual reports which Sergeant Barwick makes up each Saturday morning for telegraphing to the Signal Office at Washington. Although the affair is more limited than might have resulted with a little State aid, it is certainly a better like publication than we have seen from other States. With a little more interest by volunteer observers, it can be considerably extended. The Bulletin is issued weekly and is sent to each local observer and crop correspondent and is exchanged for the weather reports of other States. No doubt all who are willing to co-operate with Sergeant Barwick will be welcomed by him as coadjutors, and thus private interest and effort will go far to supply the service which the State denied. It strikes us the matter is very creditable and worthy of encouragement.

## California Cement.

For a number of years we obtained a small amount of cement from Benicia, but the works there shut down a long time since. Then the cement works at Santa Cruz were started, but trouble of various kinds overtook the company and nothing has been done for some years. Now a new enterprise for making cement has been started in San Diego county by the Jamul Portland Cement Works. Considerable money has been spent in the purchase of a plant, gravity railroad, etc. The Jamul Works are turning out 100 barrels a day, but it is proposed to increase this output to the total consumption of California, which at present reaches over 1000 barrels a day. A large force of men is employed at the works, and the deposit of raw material in sight said to be very great.

The use of cement in this State has always been large. The cable railroads alone use immense quantities in constructing their tubes, and we use it very largely for sidewalk and building purposes, in default of cheap stone. For sidewalks in the coast and interior towns, its use is becoming almost universal. Our irrigation dams, reservoirs and cemented ditches and pipes have also called for large quantities. We have been importing annually about \$3,000,000 worth of Portland cement, so there is a very good market for the home product, provided its quality is satisfactory. Deposits of the volcanic stone from which this cement is made might be sought for diligently, for they are valuable.

## Grape Yield Per Acre.

By an oversight, as mentioned in last week's RURAL, the table prepared by the Census Office of the average yield of grapes in the different States was published in the RURAL of March 28th without the decimal point in the column of figures giving average yields per acre. The table, as corrected, is as follows:

	Area in bearing vines, acres.	Average yield of grapes per acre, tons.	Market value of grapes per ton.
Arizona.....	1,000	3.00	\$16 50
California.....	155,352	1.77	17 66
Georgia.....	1,938	1.33	90 00
Illinois.....	3,750	2.00	54 00
Indiana.....	3,850	1.75	67 00
Kansas.....	4,542	2.00	55 00
Missouri.....	10,000	3.00	50 00
New Mexico.....	1,188	3.00	45 00
New York.....	43,850	1.75	70 00
North Carolina.....	4,000	1.75	60 00
Ohio.....	28,078	1.80	57 00
Tennessee.....	1,500	2.50	80 00
Virginia.....	4,100	2.00	60 00
Other States and Ter's.	45,000	2.00	60 00

As we stated last week, we should consider  $1\frac{1}{2}$  tons too low for an average of bearing vines in this State, and why should our neighbor Arizona have nearly twice as great a yield? Perhaps the Census Office can explain.



## POULTRY YARD.

## Chicken Houses for California.

EDITORS PRESS:—I submit for the consideration of RURAL readers plans for the construction of poultry houses suitable for California. A house, say 6 by 10 feet, is of convenient size for moving and large enough to roost comfortably say 20 ordinary fowls. There should be two roosts, running lengthwise of the house, one on each side of the doorway and a sufficient distance from the side of the house (say one foot). This would leave each roost one foot from the two-foot doorway. The house may be made in shed form or with double roof, as one prefers; perhaps the gable roof would be preferable as presenting a nicer and more finished appearance. Either one, however, nicely made looks sufficiently well.

For a shed house the height should be six feet on the lowest side and seven and one-half or eight on the higher, as one's idea of harmonious proportion happens to be. Select boards of ten inches or one foot in width and nail them on perpendicularly from the sill to the plate. Each side may be nailed to the sill and plate on the ground and then raised and fastened together, after which the roof may be put on. As your door will be in the end, the length of your rafters will be, say seven feet; four 2x4 rafters will be sufficient. After nailing on the boards to which the shingles are to be nailed (or shingles, as you prefer), lay your shingles or shingles up to within two feet or so of the front of the roof and then raise your last courses by putting short 2x4 pieces from and on top of the last course to the front plate, upon which place blocks under each short piece to raise it to a position equal with the end resting on the last course and then cover in, leaving in this manner a space four inches high and the length of your house between it and the plate and main roof of your shed, which will furnish a constant and thorough ventilation for the upper part of the house, as the wind blowing in and under the raised portion of the roof, and passing directly on out, causes a current which exhausts the heated air of the house, drawing it away, in fact, and dispersing it outside. For ventilation at the bottom, which I hold to be equally necessary, raise the house on supports of any kind sufficient to hold it firmly, say one foot or even more, perhaps as high as 18 inches, and if there are no skunks or other burly things it may be left open, but if that cannot be done it may be covered in with lattice or wire netting sufficiently fine to keep out animals. I find that many of my fowls, especially of the larger breeds, are in the habit of budding in the corners on the floor, even though the roosts are only two feet high from the floor, and think that if the space below could be left open they would then take to the roosts. Perhaps the accompanying cut, Fig. 1, will assist in conveying my idea.

Another style of house, similar in material points, would be a structure with a gable roof and ventilator over the peak of the roof. This can be built in all respects as the other except in the matter of the roof and ventilator. The sides and ends are made of foot-wide boards placed upright, nailed in place and neatly battened, and having the appearance, when finished, of a shed on each side of a main building much narrower than the sheds, and with the roof raised and overlapping the shed, raised about four inches and overlapping sufficiently to prevent the rain from entering in the space between the two roofs as shown in the engraving, Fig. 2.

The houses may be made 6x10 or 8x10, as either size can be moved easily by a good, stout horse and a sled. If it should be preferred to have a board floor to the house, a space must still be left at the bottom for ventilation, and this may be managed by having corner posts to the house; or if not, then by leaving the corners uncut and cutting as much as desired off the ends of the middle boards and then nailing a 1x6 piece firmly across just above or even with the cut ends to keep them in place and give strength to the building.

The roosts should be about two feet from the floor, or at least one foot from the top of the opening, and made of 2x3 scantling, rounded on top, or straight willow poles 2 or 2½ inches in diameter may be used.

All hen-houses should be thoroughly cleaned as to droppings at least once a week and kept as dry and thoroughly aired as is possible. In warm summer a wire-cloth or lattice door may be used instead of a close door to afford more air during the night.

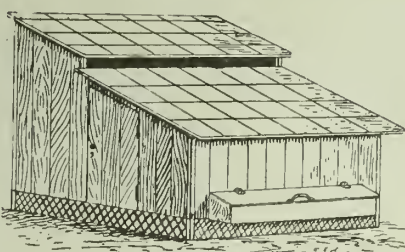
The use of disinfectants in the house is recommended by many poultry-keepers, such, for instance, as an open, wide-mouthed bottle containing carbon bisulphide or carbolic acid suspended below the roosts. I think it much better, however, while not condemning this practice, to furnish the fowls with a plentiful supply of fresh air and clean houses, which, together with a necessary supply of good, healthy food and fresh water regularly supplied, not forgetting gravel, shells and even charcoal and the dust bath, will keep the fowls healthy, bright-looking and productive. Prevention is always better than cure.

Nests or egg boxes are of many fashions, and perhaps all equally good. I have known fowls to prefer a box or barrel sawed in half to the

most elaborately designed and finished nests, and that when they had the choice. I prefer a long box, say 1 foot or 14 inches square, and divided into nests 14 inches each way, the box to be as long as one thinks needful, and fastened to the outside of the house, on a level with the sill or bottom of the house, the top or cover to be hinged so that it may be raised and the eggs taken out. Entrance holes or openings are made through the side of the house to enable the hens to enter the nests when desiring to lay.

The nests should be supplied with chaff leaves or dust as one prefers. This plan enables one to gather the eggs easily and without entering the house, but where you do not allow the hens in the house during the day, the box may be placed in the house along the side, say six or eight inches from it and the cover, hinged to the side, if the house be of sufficient width to cover the nests, then when one end is

FIG. 1.



PORTABLE POULTRY HOUSES FOR CALIFORNIA.

stopped you have a covered way by which the hens may enter the nests through an entrance to it through the end of the house.

In this way the fowls have free access to the nests without being able to get into the body of the house, and the nests being thus somewhat darkened and secluded, seem to suit the fowl's idea of a proper place to lay in. It is sometimes found advisable to darken a nest to prevent the fowl from eating the egg, which seems to be accomplished in this way, and is the only way which I have found effective at all in preventing egg eating, unless we except killing the eater, which, after all, is the best and most effective, if you can detect the culprit, which

they, as they will eat them without if not previously spoiled by having them chopped for them.

I saw it recommended in a poultry journal not long since, to suspend them at a sufficient height to force the fowl to jump for them, and thus get needful exercise, which perhaps, where fowls are shut up, is not a bad idea; but I should, I believe, place a few on the ground so that they would be sure to get all they needed, and not more exercise than needful at the same time.

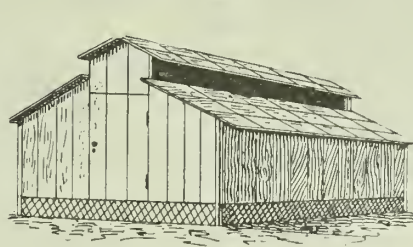
T. B. GEFROY.

Lodi, Cal.

## A New Carnation

The attractive engraving on this page represents the newest thing in carnations, the Nellie Lewis. This variety has been flowered by a number of prominent Eastern florists, and is

FIG. 2.



highly commended by them. Edwin Lonsdale, in an essay read last December before the Philadelphia Florists' Club, said Nellie Lewis was held "to be a sport from J. J. Harrison, which is an established favorite in many parts of the country. Nellie Lewis is a delicate pink, striped with a darker shade. This, of course, makes it a striped variety, but it will be none the less valuable on that account, and en masse it is essentially a delicate pink." Other florists describe it as "better and finer than Gracie Wilder," and James Vick of Rochester, N. Y., who is introducing the variety, represents it as "superior to Gracie Wilder in every respect. Flowers large, handsome, showy and of the



THE NEW PINK CARNATION—NELLE LEWIS.

cannot always be done. Where the nest boxes are placed on the outside of the house and the entrance from within, a board or boards may for the purpose of darkening the nests be placed in such a way as to constitute a covered way open at either end.

The roosts, particularly for large fowls, should not be placed more than two feet or so from the floor, and made as I have before described, leaving a distance of at least two feet between the roosts to afford the fowls breathing space and prevent quarreling, which they are very apt to do if close to and facing each other.

The two principal rules for the guidance of the would-be successful poultry keeper are thorough cleanliness in the houses and yards, and seeing that the fowls are regularly fed and supplied with clean, fresh water in clean vessels. There are other conditions needful to be observed, such as houses of proper construction, and where they cannot get it for themselves, a supply of green stuff, gravel, shells and animal food, for which last, milk, either clotted or not, may be substituted. Fowls are very fond of raw vegetable, and beets, carrots, turnips, or cabbages thrown to them are eaten with great relish. It is not necessary to chop

most brilliant color." We shall await with interest the appearance of Nellie Lewis at our California flower shows, for our growers will not be content to be without a variety which has such a good Eastern reputation.

THE RESPIRATION OF INSECTS has been the subject of study by M. Contejean, who has found that, contrary to what takes place in vertebrates, the movement of inspiration is passive and that of expiration active. The air is driven from the body by a contractile effort. Hence, when the insect is wounded, the flow of blood occurs at each expiration. The respiratory movement is not interrupted by cutting off the head, nor by the absorption of curare, which produces an immediate cessation in man.

SPIDERS differ from insects in five minute particulars: Their eyes are simple instead of compound; they have eight legs instead of six; they do not pass through the metamorphoses which are characteristic of insects; they have no antennae, and their breathing is accomplished by means of organs which combine the functions of lungs and gills instead of by tubes pervading their bodies.

## METEOROLOGICAL.

## Daily Weather Maps from the Signal Service.

EDITORS PRESS:—The inclosed map is a copy of the first issue of the new daily weather map which will be published regularly at this office. For the present the maps will be published from the morning reports, at about 10 A. M. If it is found necessary and advantageous to public interests, a second daily map will be published from the evening reports, about 7 P. M. These maps are intended for free distribution to commercial associations, educational institutions, public libraries and individuals. The edition will be limited in order to avoid unnecessary expense. Requests for the map should be addressed to the undersigned and give particular reasons for receiving the publication. The necessity for such a requirement is evident, as the maps must be furnished to those who need them most and can make the best practical use of them. There are two important uses to which the daily weather map can be applied.

1st. To obtain information as to the daily forecasts of weather and temperature for the Pacific Coast States. In this case it is necessary that the map should reach its destination sufficiently early to make the forecasts available within the period for which they are made. It is evident that the use of the map in this respect will be quite limited, owing to the want of sufficient railway facilities for distribution by mail from San Francisco.

2d. To study the weather conditions of the Pacific Coast States from the standpoint of synchronous observations. The daily weather map is practically a photograph of certain atmospheric conditions prevailing over the region represented by the map. It affords the very important advantage of studying the weather of a place in the light of extensive surrounding conditions that influence it. By such investigation, the reader of the daily weather map becomes able to prognosticate from the local conditions at his station, and to have a better understanding of the general forecasts issued from the central office. In this case the weather map can be kept in permanent file for future reference to great advantage. Any particular storm or change in weather conditions can be studied at leisure. This new publication has been inaugurated to give the people of the Pacific Coast every practical advantage of the Signal Service now provided by the Government, and which is enjoyed by other sections of the country.

Defects appear in the first edition that experience and better facilities will gradually eradicate. The public are kindly invited to make suggestions regarding the character and extent of the data published that will tend to enhance the practical value of the map.

JOHN P. FINLEY,

Lieut. 19th Infantry U. S. O. in charge,  
San Francisco April 4th

## CEREAL CROPS.

## The Season in the Sacramento Valley.

EDITORS PRESS:—The indications for a bountiful fruit crop is most excellent, and since the acreage in bearing is largely on the increase, the aggregate is sure to be much larger than ever before. The cereal crop bids fair to be an average one though the high expectations heretofore anticipated will need to be revised to a considerable extent.

The largest acreage sown for many years was got in in good season and condition, but the cool weather coming on was unfavorable for germination, hence the grain came up then and the cold weather continuing, it did not grow and stood out as it usually does. Thus it is that grain is backward and thin on the ground. Another drawback is the unusual growth of weeds that may be seen in most fields. These have about attained their size, and the wheat will never advance beyond them, but their presence has doubtless injured to a greater or less extent the outcome of the crop. It is conceded by our most advanced farmers that whatever unfavorable conditions prevail now is largely due to the unprecedented wetting the soil received a year ago.

Being so very wet, the soil melted together and then baked and became sour and lifeless. It is claimed that after such a deluge it generally takes two or three years for the soil to be restored to a normal condition. As a whole, the rainfall this season has been below the average; here, less than 14 inches having fallen, and yet it is held that the five or six inches having descended in less than 48 hours the middle of February was rather an injury than a benefit, flooding the land, which afterward baked under the influence of the prevailing dry north winds, which had the effect of pinching the grain at the roots and starving the plant. Rain will help the situation, but it cannot entirely restore the effect of an unfavorable winter.

EUREKA.

Yuba City.

[The rain has come since the above was written, and we trust it may improve the outlook considerably.—EDS. PRESS.]



## AGRICULTURAL NOTES.

## CALIFORNIA.

## Alameda.

**SUGAR IN MUST.**—Livermore Herald, April 3: Charles A. Wetmore, of Livermore valley, has written a letter upon the subject of sugar in musts, which has been forwarded to Mr. O. A. Crampton, the chemist of the Internal Revenue Department of Washington, which we believe will do much to straighten out the sweet wine difficulty, between the Department and the California wine-makers. It has seemed impossible to the officers of the Revenue Department—Eastern men, familiar only with grape growing in that climate—that grapes in California should contain as much sugar as the wine-makers claim for their musts. Through this ignorance of our wines, the wine-makers very nearly lost all the sweet wines that they fortified under the provisions of the new law. Mr. Wetmore makes a clear and concise statement of the case, as far as he has observed, showing repeated instances in his own work, and that of others, where grapes have at crushing contained from 30 to 44 per cent. of sugar. He believes that musts may have contained as high as 50 per cent. and still retained their lumped condition. He advocates the removal of all restrictions as to quantity of sugar, as liable to do injustice and cause loss to wine-makers.

**APRICOTS DROPPING.**—Haywards Journal, April 4: A fruit grower informed us Thursday that the report reaches him from a number of orchardists that through some unexplained cause the apricots are beginning to drop from the trees, and it may cause some thinning out of the crops before it lets up.

## Amador.

**FINE BARLEY.**—Jackson Ledger, April 4: James Gaschetti showed us samples of barley grown on his ranch, about a mile southwest of Jackson. Some of the stalks are 40 inches long and the heads are correspondingly long. This is a remarkable growth for this early period of the season, as the grain is not nearly full grown.

## Butte.

**SUMMER-FALLOWING IN BUTTE COUNTY.**—Chico Enterprise, April 2: Farmers are busy summer-fallowing, and there is a great scarcity of teams. Pleas. Gwyn sent a carload of machinery to Nelson, Monday, followed by a huge herd of mules. James Reavis last week took down to the same vicinity a large lot of animals for the same work. This has been a splendid season for summer-fallowing, and lots of it has been done.

**AN ORANGE GROWER'S VIEWS ON ORANGE SEED.**—Oroville Register, April 2: W. W. Gillett, whose home is at Palermo, and who for years was engaged in raising orange trees in Florida, said lately in a conversation with Major Jones that in each orange there were two seeds that were superior to all the others. Said he, "If you examine an orange carefully you will find two seeds that are larger and plumper than any of the others. Plant those seeds and you will find that the trees from them make a ranker, more vigorous and stronger growth than the other seeds. These two among Florida nurserymen are known as the king and queen seeds." The trees grown from orange seeds are divided into three classes. Those from the two seeds named make a large, fine and very thrifty tree, those from the ordinary seeds make a good tree, while those from the poor, thin flat seeds make a poor, small and scrawny tree.

**BELIEVES IN RED LAND FOR FIGS.**—Register: Daniel Streeter, one of the most enterprising farmers in Butte, has lately foiled setting out 1500 White Adriatic fig trees on land between Oroville and Biggs. He believes that the red land will produce fine figs by thoroughly cultivating it; and if so, it will greatly enhance the value of that land to all parts of the county.

**SEEDING ALFALFA.**—Paradise, April 2: Many of the land-owners are sowing alfalfa this season, as this fine grass will make a rapid growth, and with water it is one of the most profitable crops that could be set out.

**ANNUAL FAIR, THIRD DISTRICT.**—Gridley Herald, April 2: The next annual fair will be held in Chico the last week in August, commencing on the 25th and ending on the 26th. The speed program will be held at the same time contingent upon the citizens of Chico subscribing \$1750, which will enable the directors to offer \$5200 in prizes.

**WHEAT CROP ON OVERFLOWED LAND.**—Biggs Argus, April 2: M. J. King says that the cold weather made a wonderful change in the outlook for wheat on the adobe lands where the overflows occurred during the heavy storms. Grain that was seemingly drowned out is now sprouting and springing forth in fine condition, and many acres that were thought seriously damaged will make a good crop. The grain that was not subject to overflow is making a wonderful growth, and all that country lying on the west for many miles in extent is one grand field of beautiful green. Our wheat farmers can well be satisfied with the past season and prepare to harvest a bountiful crop.

**RAISINS IN BUTTE COUNTY.**—Palermo Progress, April 4: Reports of raisins of a high grade being raised in this vicinity have at various times been heard, and were again verified a few days ago, when Mr. Albert Cleal, a farmer living south of town, exhibited some of this fruit, which he had himself grown and cured. The

raisins were packed in 25-pound boxes, where they presented a neat, rich and tempting appearance. They had a fine flavor, and would compare favorably with the best article of the kind grown in the State. Mr. Cleal stated that he had sent a number of boxes to friends in the East. The remainder of his crop he has found a home market for at eight cents per pound or \$2 per box, which is a very good price. The grape vines are planted on red soil without irrigation and with only a mere pretense at cultivation. How much better a quality of fruit could be grown on the same soil with judicious irrigation and cultivation can only be conjectured.

## El Dorado.

**FRUIT PROSPECTS IN EL DORADO COUNTY.**—Placerville Republican: The prospects for a good fruit crop in this county are so far very favorable. The opening of the blossoms is later than usual, which is favorable to their escaping spring frosts. Around Coloma peach trees are in full bloom, but the blossoms are just opening at Placerville.

## Fresno.

**INDIAN SHEEP-SHEARING AT CENTERTVILLE.**—Cor. Fresno Express, April 3: A band of about 20 Indians are shearing the sheep in this vicinity. Last week they sheared 3000 head for Bob Woods, and Joe Burns had a band of 1712. This week they are shearing the 6000 sheep of a Portuguese on the Hughes ranch.

**FRESNO FRUIT REPORTED INJURED.**—Selma Irrigator, March 29: There is no doubt but the fruit in this section has sustained serious injuries by the late frosts. An Irrigator reporter examined a number of peach and nectarine trees in two orchards to-day and found a very large per cent of the buds examined, black and wilted from the freeze. The trees that are farthest advanced are the worst sufferers, as the full bloom seems to have protected the fruit. The apricot is reported to be the worst injured of any, it being the farthest advanced. A number of orchardists in this vicinity have made careful examinations and all agree that the damage is very great.

## Kern.

**DESTRUCTIVE CUT WORM.**—Bakersfield Californian, April 2: In places the cut worm is just now particularly active. In one place out of 4000 peach sprouts set, out 3000 of them were headed by the voracious animal.

**SUCCESSFUL IRRIGATION BY STEAM PUMPING FROM WELLS.**—Bakersfield Gazette: A number of farms on the north side of the river are being irrigated from wells by means of steam pumps. A. J. McLeod is irrigating 40 acres of fruit in that way and W. H. Frazine is irrigating 80 acres of vines in the same manner. The plan works admirably, and solves, to a great extent, the problem of getting water on the dry lands of the plains.

**KERN COUNTY WOOL CLIP.**—Bakersfield Echo, April 2: The new crop of wool is now coming in rapidly; half a dozen or more buyers are here from San Francisco, and competition appears to be keen. The sheepmen hold their wool at 16 cents, an increase of at least two cents per pound over last year. Most of the wool produced here is sent to Boston.

**EARLY BARLEY.**—Echo, April 2: The finest specimen of barley we have seen this spring was brought in by H. S. Winters of Rosedale a few days ago. The seed was sown on Jan. 8th, the grain now standing about four feet high and out in full head.

## Lassen.

**PLANTING AN APPLE ORCHARD.**—Susanville Advocate, April 2: W. G. Bromby of Jenesville and his brother are planting a large lot of apple seed and are going to raise the trees and then replant them in the same soil. They will plant 108 trees to the acre and are confident that an apple orchard in Lassen will pay better than an orange grove of the same size in Los Angeles.

**GRAIN SEEDING AT HORSE LAKE.**—Cor. Susanville Mail, April 2: Mr. Chas. Cramer has been busy plowing for the last two weeks, and now has his grain nearly all sown. Henry Prime and George Walter have also commenced plowing, and all are in hopes of having a large grain crop this season.

## Los Angeles.

**POTATOES FOR THE EAST.**—Los Angeles, April 5: There are 600 acres in potatoes at Centralia and 620 acres at Berena Park. The yield is estimated at 600 carloads. They will be shipped East.

**A \$40,000 OFFER FOR ORANGES ON 40 ACRES REFUSED.**—Anaheim Gazette, April 2: The owner of an orange orchard in Los Angeles county, consisting of 40 acres, now in full bearing, and mostly of Navel oranges, recently refused \$40,000 for the fruit on the trees. It may be that the offer was quite under the value. Orchards have been known to produce 1000 boxes an acre. One dollar a box for Navel oranges on the trees would be a very small figure. It is not probable that the yield in this instance was up to this mark. The yield of huddled oranges is never so large as on seedling trees. In one instance reported, a retired sea captain in Los Angeles county had 8000 boxes of oranges on ten acres of seedling trees. These he has sold at an average of \$1.50 a box on the trees. His small orchard, therefore, will bring him in a revenue this year of not less than \$12,000. This is not cited as an extraordinary instance. Of course, in all such cases no data are given as to the cost of the land, or

the cost of cultivation for a number of years when the trees produced nothing.

**PROFIT IN SEEDLINGS.**—Ovina Argus, April 1: Geo. D. Whitcomb's 2½ acres of seedlings have this year yielded \$1320. In less than 16 years from planting the seed, the proceeds of the 2½ acres have paid for the entire 200 acres originally bought.

**TREE-PLANTING.**—Ovina Argus, April 1: Quietly but persistently the planting of trees goes on. Deciduous fruit trees are sold out here, but we understand stocks elsewhere are held at somewhat lower figures than earlier in the season. Good citrus trees are firm and in good demand, and the prospects are that desirable buds will be scarce by the close of April.

**LARGE LAND SALE.**—Pasadena Star, April 1: E. J. Baldwin has sold 1500 acres of his land south of Santa Anita to an English syndicate at \$350 per acre. Geo. A. Wallace, the Alhambra nurseryman, has bought 300 acres also.

## Napa.

**STEALING A FRUIT ORCHARD.**—Callotoga Callotogan, April 1: A portion of H. L. Gibb's prune orchard is young trees, and they are located along the road leading to Lake county. The other day, while examining his trees, he noticed that a number of them had very recently been taken up and removed; the person or persons taking them had not stopped to make selections from the row nearest the road, but had gone on farther and taken better trees, which were transplanted into the orchard a year or two ago.

## Orange.

**POTATO PLANTING IN ORANGE COUNTY.**—Anaheim, April 2: There will be over 2000 acres of potatoes planted in this valley this season. An agriculturist said yesterday, "Everything is going into potatoes."

**ORANGE CROP IN ORANGE CO.**—Anaheim, April 2: Theo. Plunier is shipping oranges from this point in large quantities. His packing-house, in the old Conrad brewery, is a scene of activity these days. Mr. Plunier estimates the orange crop of the valley at 150 carloads. This is 50 carloads more than any previous estimate.

**BRINGING WORTHLESS LAND UNDER FIRST CULTIVATION.**—Anaheim Gazette, April 2: Between here and Garden Grove, where a few months ago the land was a waste of mustard, sunflowers and rank weeds, there is evidence at present of a spirit of improvement that cannot be equaled anywhere in Southern California. A syndicate of San Diego and Eastern gentlemen whose attention was some months ago directed to that section, has purchased 900 acres, and already 600 acres have been planted to walnuts; there are 240 acres in potatoes, which promise a good crop. Thomas F. Jones has 200 acres of the tract, all under cultivation, principally in walnuts and cabbages. W. J. W. Culton has 130 acres, also under cultivation and planted to walnuts. Clark Minor has 150 acres and E. P. Fowler 130 acres, and here the same spirit of improvement prevails, a continuous walnut orchard covering the entire place. John Rea has 80 acres, Mr. Brewster 60 acres, E. F. Pierce 60 acres and E. Nutt 120 acres, nearly all planted to walnuts.

## Placer.

**NO SCALES REPORTED IN PLACER COUNTY.**—Anshun Republican, April 1: It is believed by our pest inspectors that there is no cottony cushion scale anywhere in Placer county. A case of the pest was reported from Roseville not long ago, but H. E. Parker made an investigation and found that the insects were on some orange trees owned by a man named Silva just across the line in Sacramento county. The State authorities were notified and they have promised to send a colony of Australian lady-bugs to Mr. Silva's place at once.

## San Bernardino.

**FRUITS AND DESIGNS FOR CHICAGO.**—Santa Ana Blade, April 1: Nine carloads of exhibit material and one of designs pulled out of San Bernardino yesterday for Chicago. There are 1900 boxes of fruit, or double the amount used at the Citrus Fair, in the cars. Between 25 and 30 men accompanied the train to set up the several displays in much finer style than was done at Los Angeles.

## San Joaquin.

**GRAIN CROP PROSPECTS IN SAN JOAQUIN VALLEY.**—Stockton Independent: Captain Smith says he looks confidently for a large crop this season, and consequently heavier shipments than ever. Two inches more of rain in the San Joaquin valley will make the crop one of the finest ever grown throughout most of the valley. San Joaquin valley he considers safe for a good crop anyway, but rain that may be confidently counted on in April will greatly aid it. As there have been but two rainless Aprils since 1849, the chances are 20 to one in favor of the two inches, which will put the crop beyond almost any other year.

**ORCHARD AND VINEYARD PLANTING IN SAN JOAQUIN COUNTY.**—Stockton Mail: The following tracts in the northern part of the county have been planted to vines and miscellaneous fruit trees this year: Hatch & Armstrong, 295 acres; John Cory, 80; Strong & Williamson, 20; Stafford Brothers, 75; William Minner, 40; Mr. Smith, 40; George Eddleman, 30; Mr. Bellows, 30; B. F. Langford, 80; Dr. E. Armstrong, 80. Total acres, 830. All but the tracts of Messrs. Langford and Armstrong are contiguous. With the 295 acres planted this year, Hatch & Armstrong have 1015 acres. Adding to this the adjacent tracts just planted, there are 1685

acres of orchard and vineyard "in a bunch," so to speak, in the Lodi region.

## San Luis Obispo.

**ALMOND PLANTING AT CRESTON.**—Cor. S. L. O. Tribune, April 3: R. E. Bridge is now busy planting out a large variety of almonds, which number some thousands of trees, besides a large quantity of fig trees additional to his present fig orchard.

## Santa Clara.

**A FRUIT CROP SOLD.**—San Jose Mercury, April 4: The first record of the sale of fruit this season was made yesterday, County Recorder Owen filing a document by which Sylvester Graves sold all his fruit raised this year on his place near Guerneville to J. D. Shafter and F. R. Shafter. One place contains 34 acres and the other 44. Mr. Graves agrees to deliver the fruit in a condition suitable for drying at F. R. Shafter's fruit-drier on the Stevens Creek road. No price is mentioned.

**FRUIT CROPS IN SANTA CLARA COUNTY.**—Cor. Los Gatos Mail, April 4: The fact that both peach and apricot orchards are being grafted over into prunes, and that so few are now setting out apricot trees, would seem to warrant the opinion that in a few years the scarcity of apricots would increase their price so as to make their cultivation more profitable than now. The advantage of the prune even now is mostly in the ease of handling the fruit. There never was a better promise for fruit of all kinds in this part of the valley than there is now. The apricot and almond blossoms have dropped and their fruit is well set. The peach, prune, cherry and pear trees are now blossoming very full. Scarcely a tree of bearing age but is or has been blossoming, and an abundant harvest seems assured.

**DAIRY AT OAK GROVE.**—Cor. S. J. Mercury, April 1: J. Jones has started in the dairy business. A cheese press is now being constructed and everybody here is rejoicing to think that home-made cheese can be had from a competent cheese-maker.

## Solano.

**CROP PROSPECTS IN SOLANO COUNTY.**—Dixon Tribune, April 4: The showers of last week have improved crop prospects that were already good. The soil is in excellent condition, and the young grain has a strong, healthy color and is growing rapidly. The area sown to grain is so much larger than usual that unless some unforeseen calamity occurs, the crop will be the largest that has been harvested in this county for years.

**EASTERN HORSES ARRIVED.**—Suisun Cor. Tribune, April 4: A carload of horses, consigned to John Harper, arrived from Chicago last Monday. There were three runners and two trotters in the lot.

## Sonoma.

**ROSEBUSH INSECT EXTERMINATOR.**—Santa Rosa Democrat, April 4: County Gardener Dunn says that those having rose bushes infested with insects will find an effective exterminator in a solution of tobacco, prepared by steeping refined tobacco from cigar manufacturers in water.

**SONOMA RAISINS.**—Healdsburg Enterprise, April 2: The raisin production in the vicinity of Healdsburg is becoming quite important, and several vineyardists are going to dry their grapes the coming season. Judge Crocker of Geyserville says that he produced two tons and a half of the Sultan raisins last year as an experiment and received such a profitable price for them, that he intends converting his whole vineyard into that variety and produce raisins.

**IMPORTANT TO FRUIT GROWERS.**—Sebastopol Times, April 2: Mr. W. T. Hunter, our depot agent, informs us that the Donahue Railroad has formed a junction with the Southern Pacific Railroad at Shell Mound. This connection will enable our fruit-growers to ship their fruit direct to the East.

**RAPID GROWTH.**—Sebastopol, April 2: There is in the Times office a last year's growth, eight feet eight inches long, out from a Coe's Golden Drop plum tree on Mr. D. Litchfield's place.

## Stanislaus.

**PLANTING COTTON SEED.**—Modesto News: J. B. L. Bittick has received 320 pounds of cotton seed from the cotton mills of Oakland. He will plant the seeds on the McKenney ranch, across the Tuolumne river from Horro's ranch, and give the matter of cotton-raising in this section a thorough trial. He estimates that he has sufficient seed to plant between 30 and 40 acres.

## Sutter.

**BOGUS FLOWER SEEDS.**—Yuba City Farmer, April 4: Many of the ladies in Yuba City and vicinity, who delight in having beautiful flower gardens, recently patronized a traveling man who had flower seeds for sale which he claimed were new varieties. He showed his catalogue containing beautiful cuts of the flowers and did a good business. He was very accommodating, and in many cases planted the seeds himself. During the last few days, numerous complaints were heard concerning the flower-seed peddler, for in almost every case where the seeds grew some common variety of weed or plant developed. Seeds for choice pansies grew up field mustard; beautiful verbenas developed into pig weed and so on. The peddler was a fraud, and succeeded well in plying his trade.

**RECLAIMING LAND.**—Yuba City, April 3: The two large pumps of Reclamation Co. No. 108 are kept running day and night pumping seepage water off the farm of Senator Fair.

(Continued on page 348.)



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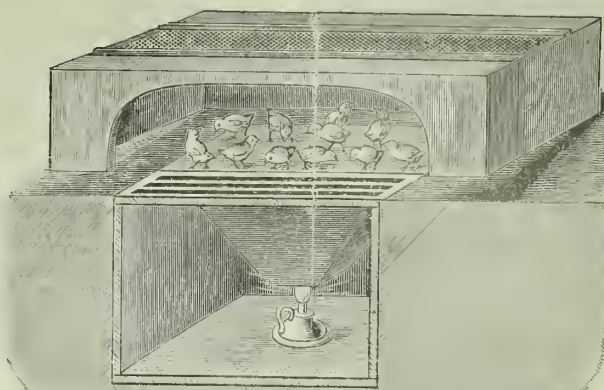
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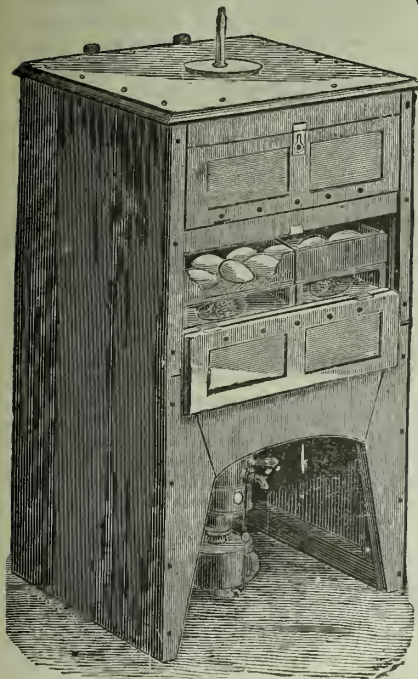
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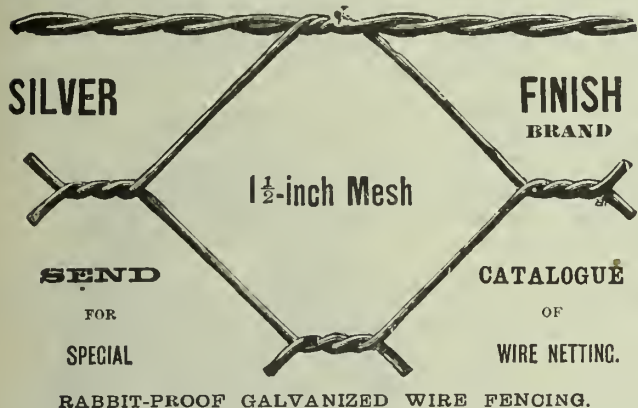


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# WOODBURY'S IMPROVED ROSIN WASH.

Perfect removal of scales guaranteed and invigoration of Trees without possibility of injury. Now is the time to apply.

This is the best wash yet produced for all kinds of fruit trees and shrubs. It removes scale from deciduous, citrus or ornamental trees without injury. One application every year is all that is required. From hundreds of testimonials we print the following:

WALNUT GROVE, February 14th, 1891.—MR. C. J. WOODBURY, 123 California Street, San Francisco, Cal.—Dear Sir: I have been using the Rosin Tree Cleanser, as put up by you, for the past two years, and find my trees almost free from scale. It does its work more thoroughly and is less trouble to work than any wash I have ever used. I have tried most all the washes that have ever been compounded. Yours respectfully, L. D. GREEN.

Directions (most simple, easy of application) sent with each shipment. This wash is guaranteed not to harm the leaf, buds or in any way keep them from forming.

Please observe the price. Put up in cases, 45 pounds in each can, two cans in a case, two cents per pound; in barrels, 1 3-4 cents per pound; by the ton, 1 1-2 cents per pound. Weight, nine pounds to the gallon. To one gallon add seven gallons water, result eight gallons ready for use, at a cost of thirteen and one-half cents. Correspondence solicited.

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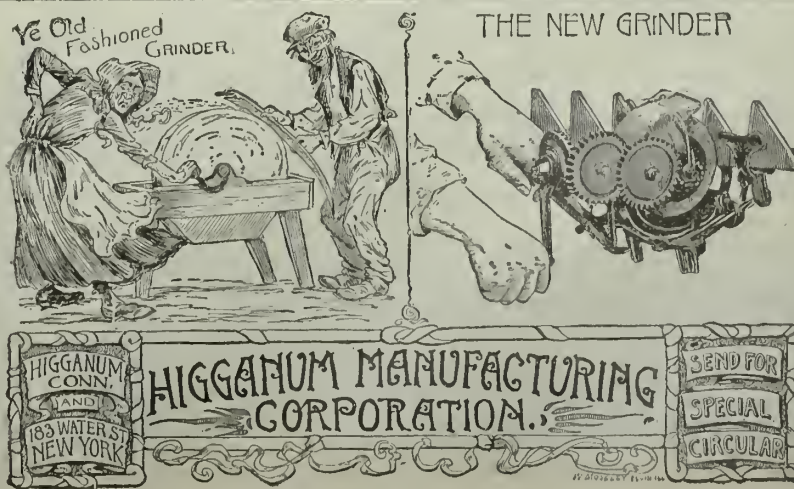
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SEND FOR SPECIAL CIRCULAR



## Agricultural Notes.

(Continued from page 346.)

He has about 6000 acres of wheat out of water. The farmers are all busy; most all of them are done sowing barley.

## Tulare.

**CITRUS FRUITS AT PORTERVILLE.**—There are now more bearing orange trees around Porterville and Plano than in any other part of the San Joaquin valley, and the quality of the fruit produced is excellent. Porterville lemons on exhibition at the Southern California citrus fair this month have attracted the attention of the Southern citrus-fruit growers. They acknowledge that they have nothing which excels them.

**ADVICE AGAINST PLANTING BERMUDA GRASS.** *Traver Advocate:* The planting of Bermuda grass along the banks of irrigating ditches is something that should be prohibited. This grass, when it once gets a hold in a place, renders the land almost useless for any other purpose, for it will cost more than the land is worth to clear the ground of it. Every little piece of the root or top, no matter how small, will grow and soon develop into a good-sized plant, and the only way it can be got out of a place is to lift the soil, which is no small job. Where it is planted along ditch banks, small pieces of the tops of the grass become detached and are carried by the water into land that is being irrigated where it takes root and grows. And to those who intend planting it on alkali spots, we would say, don't do it, or you will regret it later when this grass has possession of your place.

**FRUIT PLANTING AROUND HANFORD.**—*Cor. Visalia Times, April 2:* Dr. A. P. Peck represents a Chicago syndicate that has purchased 640 acres of land, known as the Dice ranch. It is now known as the "Solano Fruit Farm." J. C. Kimball of Oakland owns a fine body of land north of Hanford, on which he has this year planted out 66,000 prune trees. The orchard will be extended next season. The Ballyhooley ranch of 160 acres, and Harvie ranch of 30 acres, south of Hanford, were planted to vines this season. Those properties are under the supervision of S. H. Bigland, who represents a colonization association with offices in London and San Francisco. B. L. Barney, Fred Foster and G. J. Dockle are new arrivals from the State of New York. They have purchased land, which is spoken of as the New York colony, and have this season planted out 40 acres to vines, and will extend the vineyard next year. S. E. Biddle & Bros. are planting 320 acres to vines; E. E. Bush, 150 acres to trees and 350 to vines; J. J. Harlow, 140 acres to vines; J. T. McJunking, 30 in trees and 35 in vines; L. C. Lillis, 340 acres in vines; S. H. Bigland, 180 acres; D. C. Hayward, 150 acres; Frank Sharples, 40 acres; Ben Mickis, 40 acres; Mr. Wilson, 40 acres; J. O. Hickman, 80 acres; W. S. Porter of San Francisco, 100 acres; A. F. Fraser, 70 acres; S. A. Deardorff, 40 acres; Wm. Viney, 20 in trees and 30 in vines; Mr. P. Troxler, 19 acres to vines; John Benedict, 30 acres; Joseph Rogers, 40 acres; Manuel Silva, 75 acres; M. M. Johnson, 50 acres; Harry Newport, 40 acres; Rainey Bros., 60 acres; Richland Colony, 160 acres; S. W. Lane, 40 acres; Porter Mickie, 20 acres; C. J. Creevy, 40 acres; A. F. Jewett, 40 acres; W. H. Henderson, 40 acres; John Rice, 60 acres; J. H. Melone, 20 acres in trees; A. V. Taylor, 150 acres in vines. This is not claimed as a complete list of those who are engaging in the vineyard business for the first time this year, but only those heard spoken of during a visit of a day or two at Hanford. Enough was learned to warrant the statement, however, that the estimate of 7000 acres for the season's planting is none too high. Two years hence there will be 10,000 acres to be cared for. To handle the crop for this immense acreage, will require a small army of men; and at picking time, hundreds of women and children will find employment.

## Yolo.

**FRUIT IN CAPAY.**—*Woodland Democrat, April 2:* Capay valley gives promise of being one of the loveliest spots in all California in the near future. Within a few years the valley will be one big orchard wherein a man can obtain almost any kind of fruit or nut. The Tancred Colony has just finished planting 40,000 fruit and nut trees and over 20,000 grape vines of the raisin and table varieties. They now have 12 teams plowing the second time. The Guinda Fruit Company has added 80 acres to its 120 acres of orchard. Joe McMahon has planted 25 acres more, mostly prunes. W. E. Cole has planted 35 acres in a variety of fruit trees. F. P. Hamilton has planted seven acres in French wainuts. The trees are one and two years old. The following have planted from 500 to 2000 trees each: Sam Allen, H. H. Smith, L. P. and J. B. Everett, Dave Davis, Lorin Taber, R. O. Armstrong and others.

## Yuba

**WORK ON BROWN'S VALLEY CANAL.**—*Marysville Democrat, April 1:* The Brown's Valley canal is advancing rapidly under the excellent management of L. J. Burns, general superintendent of construction, and in a few days will be completed as far as Dry Creek. When the entire canal is completed it will doubtless be a great benefit to the district, as it will irrigate some of the best land in the county.

**CROP PROSPECTS IN BROWN'S VALLEY.**—*Cor. Democrat, April 1:* The grain crop looks well and prognosticates a prosperous yield. The

fruit-growers of this district are jubilant over the encouraging prospects betokened by the fine condition of the trees, and an ample yield of acorns is anticipated.

## The Duty on Coal.

Alfred Bannister, the vice-president and general manager of the Starr Milling Company of this city, has written a brief "suggestion" for the benefit of California farmers and millers, which will be presented to the Produce Exchange and the Chamber of Commerce. He declares that our farmers now labor under the disadvantage that our population is too small to consume sufficient imports to bring here the tonnage required for the export to Europe of the wheat surplus. Mr. Bannister's suggestion is as follows:

"That the State of California should refund to all importers of coal from Europe and the Australian colonies the import duty of 75 cents per ton at present charged.

"It is not proposed to make this refund on coal from British Columbia, which is brought here in vessels unsuited for the export of wheat hence to Europe.

"Coal being bulky and of great weight compared to its moderate value financially, already brings more tonnage fit for exportation of wheat to our coast than all other imports combined. The adoption of the above suggestion would as surely bring us considerably more tonnage than now to export our wheat, as this increase of tonnage would reduce wheat freights hence to Europe. This reduction of freights would enable shippers to pay more than now by \$1 to \$2 per ton for wheat to farmers, who would also be further benefited by the greater value given to their land through thus increasing its earning power.

"No doubt this proposed action would slightly prejudice our few coal producers, but it would, without doubt, very considerably benefit (1) our most deserving 50,000 farmers; (2) our steamship, railroad and gas companies; (3) our growing home industries, and (4) every household and consumer of coal."

Mr. Bannister declares that neither his company nor himself ever import coal, so that his sole motive in making his suggestion is the welfare of the State and of its farmers.

**THE LARGEST RAILROAD CORPORATION IN THE WORLD.**—The Pennsylvania company's system of railroads is composed of no less than 120 corporations; certainly a colossal aggregation to be under the management of one head. President Roberts in his last annual report says that with few exceptions all these corporations are in good financial condition and are earning fair returns on the capital invested. They represent 7915 miles of railroad and canal, and have a share and bonded capital of over \$700,000,000. They earned in 1890 more than \$133,000,000 gross and moved over 137,000,000 tons of freight and 84,000,000 passengers. In 30 years on the lines east of Pittsburgh & Erie the increase in gross earnings was over 800 per cent and in net was more than 200 per cent. The cost of the securities of other corporations now held by the Pennsylvania was \$113,183,734 and the direct revenue from them last year was \$4,439,404, which is in excess of the total funded debt of the Pennsylvania railroad. In connection with the above figures the report of the London and Northwestern for 1890 is interesting. Its authorized capital is £110,077,934, or, figuring the pound at \$4.85, \$533,877,979. On this the gross receipts from traffic were \$29,651,339 and the net, amounted to \$16,199,117. Dividends at the rate of 4 per cent were paid on the guaranteed and preference stocks and of 7 1/2 per cent on the consolidated stock. The amount of these stocks is £77,107,233. The mileage of the system was 1916.4 miles. It will be seen that although the mileage of the Pennsylvania system is 7915 miles, which is just about 6000 miles more than the London and Northwestern, the capitalization of the two companies is by no means so far apart, that of the English corporation being \$533,877,979 against \$700,000,000 of the Pennsylvania. These facts should not be forgotten when the results achieved in both countries are under discussion.

**NEW USES FOR AN OLD MATERIAL.**—Peat, used for fuel from the earliest times, and long known to be of great value as a fertilizer, now finds so many other applications that its preparation has developed into an industry. Peat powder is serviceable, not only about stables but elsewhere, on account of its absorbent and somewhat antiseptic properties and low cost. A few years ago a French surgeon introduced this powder, treated with antiseptic solutions and contained in a cloth bag, as a dressing for wounds. The idea, said to be a very old one among the working people of some places, was improved upon by another medical man of Paris, Dr. Redon, who made a soft and pliable wadding of peat. Other dressings have since crowded these out of hospitals, though the peat applications are coming into use and gaining in favor among veterinary surgeons. Dr. Redon's wadding has yielded important results by leading to many efforts to produce woven fabrics, so that peat is now made into mattresses, coverings, carpets, etc., which are esteemed on account of their power of absorption.

**THE ORGANS OF SMELL IN THE TURKEY VULTURE** and osprey crow are so delicate that they can scent their food for a distance of 40 miles.

## The Sap of Trees.

A keen observer and ingenious experimenter has been writing a book on "Sap: Does it Rise from the Roots?" a question which he proceeds to answer with a decided negative. To those who merely "run and read" the whole question and answer may appear as a very light matter indeed. In reality, however, the right answer to the question is of great moment to us all. In the first place, a negative reply simply means the ruthless upsetting of all our preconceived ideas, the reversal of what has been taught in our schools for ages. It is true that, if we examine into the theory of plant growth as set down by botanical and biological authorities, we find that they disagree among each other to an astonishing degree. They all, however, join in declaring that trees and plants derive sap from their roots and breathe in gases by their leaves. How the sap rises, whether by capillary attraction, endosmose, root pressure, suction, or evaporation, or a combination of all (described by Professor Huxley as pulling, pushing, and dumping), the greatest biologists, including Herbert Spencer, Sachs, Huxley, Darwin, and others, have by no means been able to prove. They all, nevertheless, endorse the theory of rising sap, and agree, moreover, that it rises in spring and descends in summer. Now, if all this theorizing is proved to be wrong, we shall not only have to alter our school teaching, but largely modify our agricultural practice. Clearly, if the roots suck up, absorb, or otherwise collect moisture and the organic and inorganic constituents of sap from the soil, then the soil will quickly become exhausted and require constant feeding, while the leafy parts of the plants must be cut and pruned down. This is the present practice. And it is certainly worthy of remark that our best cultivated—according to the theories of the day—orchards and gardens are those that suffer most readily from blight and disease generally. Our new botanical revolutionist, Mr. J. A. Reeves, with his book on "Sap" tries to prove that we are altogether on the wrong road; that sap does not ascend, but descends, and that gas does not descend, but ascends in all trees and other plants. To the unprejudiced physicist and mechanician this theory of Mr. Reeves seems by far the most credible and intelligible.—*Exchange.*

## The New University.

Senator Stanford, in speaking to a reporter concerning the new University at Palo Alto, says:

"I have talked over the University matters with Prof. Jordan, and I expect him out here some time during April. In any event, he will be here by June. The University will be opened at least for the freshman class by October. Of course, in time, the University will be complete from the kindergarten to the post-graduate course, but that can only be after a village has grown up around the University.

"When the University opens there will be accommodation for about 700 pupils in the dormitories. My idea is not to build big dormitories, but to have 20 or 25 in each, thus making a sort of club.

"The technical department of the school I propose to have more complete. There is no use filling a lad with learning and then turning him out to earn his living when he does not know how. We will teach him, then, to use his hands. Any profession he chooses he can take up and learn there. By this course, I think we will turn out an improvement on the usual graduate from Eastern colleges.

"Young fellows—nice, bright and well-taught boys—come to me continually with letters from friends, asking for positions for them, and yet there is nothing they can do. They have to begin, then, right at the bottom and learn how to work.

"The girls will be accorded the same privileges as the boys, as far as their sex will permit.

"The University will not be free. It has been decided that better results can be gained otherwise. There will, however, be provision made for all sorts of free scholarships, and everything possible will be done to help poor boys to get an education. The institution is designed mainly to benefit middle-class people, though the sons and daughters of the rich will be as welcome as the others.

"I have not decided on any other professors as yet. In selecting the remainder of the faculty I will be guided to a great extent by Prof. Jordan, who knows them all. He is a Cornell man, and the Cornell course more nearly coincides with my ideas than that of any other of the colleges."

**OUR EXPORTS OF AGRICULTURAL IMPLEMENTS.**—An official report from Montevideo announces that the United States is far ahead of any other country in the supply of agricultural implements and machines in Uruguay. These include plows, plowshares, mowing machines and axes, to which an English journal, the *European Trade Mail* remarks: "Reaping and mowing machines are obtained almost exclusively from North America, while Great Britain holds the market with respect to threshing machines. We are also first as regards spades."

## Southern California Pomologists.

**EDITORS PRESS:**—The annual meeting of the Southern California Pomological Society was held at South Riverside April 2d. Representative horticulturists from different counties took an active part in the meetings. Three sessions were held, at which valuable papers were read, followed by interesting discussions. The society will incorporate in a few days. This society decided to do its share toward making our tree and fruit exhibit at the World's Fair in Chicago in '93 one worthy of our State.

A telegram was sent to the president of the World's Fair Commissioners from this society, representing the sixth district, unanimously recommending the representative, practical horticulturist, N. P. Chipman of Red Bluff, as Horticultural Commissioner for the World's Fair.

The following officers were unanimously elected for the ensuing year: President, Hiram Hamilton, Orange; Secretary, D. Edison Smith, Santa Ana; Corresponding Secretary and Treasurer, H. W. Kruckeberg, Los Angeles; Entomologist, Prof. D. W. Coquillett, Los Angeles; Vice-Presidents, Dr. N. H. Claflin, Riverside; Dr. O. B. Chubb, San Bernardino; O. M. Heintz, Los Angeles; Thos. A. Garey, Santa Barbara; N. W. Blanchard, Ventura; F. A. Kimball, San Diego; Executive Committee, N. H. Mills, B. O. Clark, T. A. Garey, N. W. Blanchard, F. A. Kimball, Joel B. Parker.

The next regular meeting will be held at Pasadena, Thursday, Oct. 1st.

At 9:45 p. m., the meeting adjourned to the parlors of Hotel Temescal for a more perfect social acquaintance with the new members and hospitable citizens of South Riverside.

D. EDSON SMITH, Sec'y.

Hope Ranch, Santa Ana, Cal.

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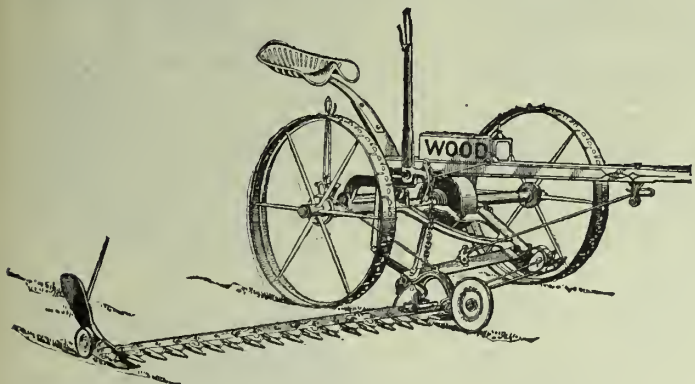
Always In the Lead and, as usual, again Improved and Perfected for This Season's Work.

IN THE PRINCIPAL HAY-PRODUCING REGIONS, THE NUMBER OF THE WALTER A. WOOD MOWERS IN USE IS NOW LARGER THAN THAT OF ALL OTHER MAKES PUT TOGETHER.

## WALTER A. WOOD MOWERS WITH TILTING BAR.

FOUR WIDTHS.

4 ft. 3 in. Cut, 4 ft. 6 in. Cut, 5 ft. Cut, 6 ft. Cut.



The merit of The Walter A. Wood mower causes it to take first premium on all competitive occasions. At all the great WORLD'S FAIRS it has received highest honors. At the 1889 PARIS EXPOSITION, the grandest World's Fair ever held, Walter A. Wood's mower, his binder and his reaper each received highest award for field work; and Mr. Wood personally received highest honors as inventor and manufacturer. It was indeed the greatest sweep-stake ever carried off. Among the causes of the supremacy of the Walter A. Wood mower notice:

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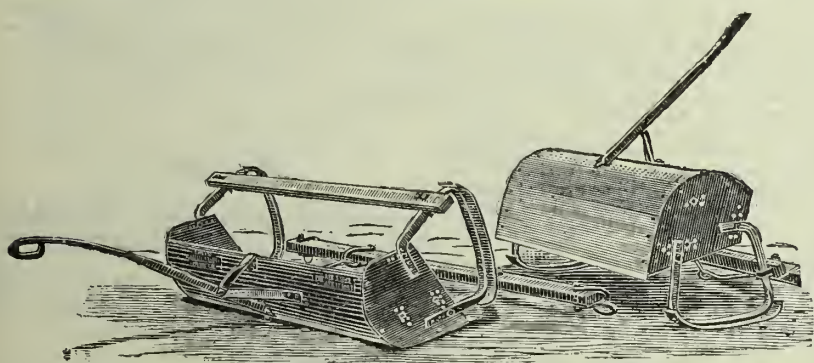
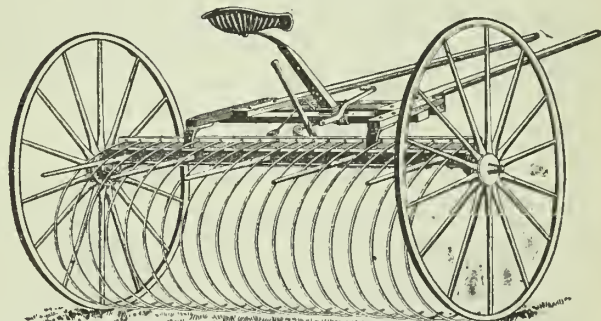
Fouling of the wheels and tripping device; sagging of the axle; skipping hay next the windrow. Failure to dump when tripped; failure to let the teeth fall promptly; dumping when not tripped; unreliability of trip when turning curves. Jar when discharging; side jerk when tripping; fretting and worrying horse; galling back and shoulders of horse. Seat at one side of center; insufficient adjustability of seat to suit size of driver; weight of driver and rake not properly centered over axle. Dead-lock of teeth, causing breakage; non-adjustability for different grasses and ground; poor wheels; poor teeth. Worthless relief devices to prevent breakage of poor teeth; noise; hard-running; clogging up dirt, and thus dusting the hay.

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J. W. SCHMITZ, Supt. Miller & Lux.

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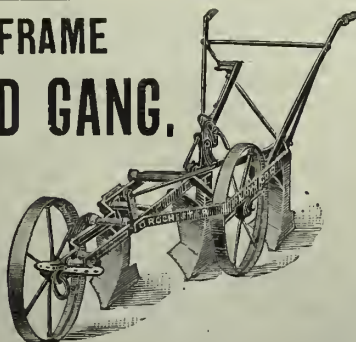
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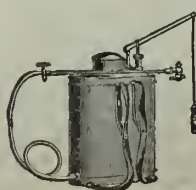
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# AGRICULTURAL SCIENCE.

## Notes on California Olives: Their Adaptations and Oils.

University Experiment Station Bulletin No. 92.

In view of the constantly increasing importance olive culture is attaining in California, I commenced last October, under instructions from Prof. Hilgard, a study of the different olive varieties cultivated in this State and of the quantity and quality of oil produced by each.

The time that could be given to this subject being limited by my other duties, what I considered most important was the identification of the varieties; from which afterward were obtained small samples of fruit used for a chemical test as to the quantity of oil each contained, and, so far as feasible, its quality.

My observations were thus necessarily confined to the plantations at Berkeley, Niles and Mission San Jose, more especially to those of the latter, where, maturity being earlier than in the other two localities, we were enabled to obtain samples sooner.

My first visit was made at the beginning of November, 1890, to the plantation of the California Nursery Co. at Niles, where Mr. John Rock, the president of the company, kindly showed me all the varieties cultivated and gave me much information regarding the large collection of foreign varieties, very well cared for but with only a light crop; partly, doubtless, on account of their imperfect acclimation. The maturity was very late; the variety Rubra alone was just beginning to change color. This backwardness was probably due principally to their growing on low ground; for other trees but a short distance away, but on high ground, showed a more advanced degree of ripeness. This shows that, especially in cool climates, the plantation on high ground is better suited to olives because they receive there more air, heat and light, so much needed by these trees.

I remarked also some damage to the crop caused by a very strong wind which had blown for several days. This damage was still greater at Mission San Jose and at Berkeley, where I think that not only the wind but the dryness of the soil had contributed much to the falling-off of a large quantity of olives. In fact the rain, coming soon after, benefited somewhat the fruit which remained shrunken on the tree, improving it in appearance and size.

My attention was then given exclusively to the olive trees of Prof. Hilgard at Mission San Jose, and there I began the identification of the varieties, of which I could determine only twelve, others being too young or without fruit.

According to my observations, these varieties may be arranged as follows:

According to Time of Ripening.	According to Productiveness.
1. Nevadillo blanco.	1. Mission.
2. Atro-violacea.	2. Nevadillo blanco.
3. Pendulina.	3. Columbellia.
4. Redding Picholine.	4. Uvaria.
5. Manzanillo.	5. Atro-violacea.
6. Mission.	6. Redding Picholine.
7. Polymorpha.	7. Oblonga.
8. Oblonga.	8. Rega is.
9. Rega is.	9. Pendulina.
10. Columbellia.	10. Manzanillo.
11. Uvaria.	11. Polymorpha.

It must be remembered that, with the exception of the Mission olive, most of the trees are young, and therefore the amount of the crop may not correspond exactly with what would be obtained with older trees; so these data must be taken with due allowance.

In the plantation of the University at Berkeley the succession of ripening was the same as at Mission San Jose, but the fruit matured correspondingly from one to four weeks later. The yield ranged from small to very small on all the trees, with the exception of the Nevadillo blanco and the Mission, which had a good crop. Some trees of the former are already about seven years old, and those of the latter are represented by two large and old specimens. All the other trees are from four to five years old.

The results obtained should, however, be taken only as a preliminary experiment, and not as absolute; because the number of samples of the localities represented, and the special conditions of the fruit, were not such as to give completely decisive results. Next season the tests will be arranged in such a manner as to work on numerous good and large samples from various localities in the State.

We are also indebted to Mr. Geo. C. Roeding, who supplied us with six larger samples, produced at the Fancher Creek Nursery at Fresno. The first samples received from Fresno consisted of five varieties, one of which, (name unknown), had been picked November 4th. The others were the Pendulina, Nevadillo blanco, Manzanillo, Atro-violacea; while the sixth sample, of the Rubra, was picked on February 5, 1891.

Their condition was as follows:

*Pendulina*—In fair condition; some olives dried and beginning to spoil; maturity far advanced.

*Nevadillo blanco*—In fair condition, but over-ripe.

*Manzanillo*—In fair condition; some dried olives; generally over-ripe.

*Atro-violacea*—In good condition and at the right degree of maturity for warm climates.

*No name*—In fair condition and over-ripe; This olive resembles somewhat the Italian Cerasola, but it is a little larger.

*Rubra*—In very bad condition; damaged by frost; maturity, at the right degree for warm climates.

From Mission San Jose was received also a

sample of Nevadillo blanco, gathered January 13, 1891. It was in rather good condition, but the maturity was a little passed.

All the above samples, except the Rubra, were made into oil by the usual and practical method, in order to have a small quantity of oil for testing its character.

### OBSERVATIONS ON THE OILS OBTAINED.

On March 13, 1891, I made the following observations on the oils obtained:

*From Fresno*—

*Atro-violacea*—Condition thickish, not clear; color, yellowish-brown; odor, not pronounced; taste, rather greasy and coarse. It seems to be slow in clearing. General quality, fair.

*Nevadillo blanco*—Condition, fluid, clear, but not yet bright; color, light-golden; odor, rather pronounced; taste, a little greasy, otherwise agreeable and delicate. It clears rapidly. General quality, fine.

*Pendulina*—Condition thickish, not clear; color, yellowish-brown; odor, pronounced; taste, somewhat greasy but agreeable. It will take long to clear. General quality, good.

*Manzanillo*—Condition, very fluid, bright and transparent; color, fine-golden; odor, slightly suggestive of unsoundness; taste, very slightly rancid, otherwise delicate. General quality, a rather good oil, clearing quickly.

This sample was very small, and it was impossible to keep it well.

*No name*—Condition, clear but not yet bright, rather fluid; color, fine light-golden; odor, pronounced, but not altogether pleasant; taste, slightly greasy and rank; general quality, a common oil, but clearing quickly.

*From Mission San Jose*—

*Nevadillo blanco*—(This oil was made two months after those from Fresno). Condition, fluid and almost clear; color, rather deep-golden; odor, of fresh olives; taste, oil too young for a close judgment, but promises to become a very fine sweet oil.

From the above observations it appears that olives from the country about Fresno, like those from warm countries generally, produce a thickish oil, dark-colored, greasy and therefore not easy to keep; moreover when made in larger quantities, this oil will not clear as quickly as did our small samples. The Nevadillo Blanco yields the best oil among the varieties from Fresno, but still inferior in quality to the same from Mission San Jose, which, although made two months later, promises to clear before or almost at the same time as the other one.

In order to remedy the defects that oils made from olives growing in warm climates are apt to have, the fruit ought to be gathered when still yellowish and only just beginning to change their color. Such fruit would always produce an oil which on account of its delicate taste would have the same reputation as that obtained in cooler climates. If the olive-grower cares more for quantity than for quality, the olives should be gathered when black and still firm; but in no case should this degree of maturity be passed, because the oil from such olives would be of inferior quality, and sometimes also the quantity would be diminished.

The following table, shows the analytical results from the different samples received at this laboratory.

Column 1 shows the proportion by weight between pits and flesh in the fresh fruit. Column 2 shows the proportion in which pits and flesh may be made to contribute to the oil product when fully extracted. Column 3 gives the absolute percentage of oil contained in pits and flesh. Column 4 finally gives the results of the "Iodine test" much relied upon for the purity of commercial oils, as hereinafter explained.

PARTIAL ANALYSIS OF SOME SAMPLES OF CALIFORNIA OLIVES AND OILS.

Variety.	Locality.	Date of Picking.	1. Proportion of pits and flesh in fruit.		2. Percentage of oil in whole fruit yielded by.		3. Percentage of oil contained in fresh.		4. Iodine absorption. Oil from Oil extracted pressing. by Carbon Bisulphide.
			Pits.	Flesh.	Pits.	Flesh.	Pits.	Flesh.	
Manzanillo.....	Fresno.	Nov. 4, '90	13.0	87.0	.53	19.23	4.1	22.1	80.2
Manzanillo.....	Berkeley.	Jan. 3, '91	16.0	84.0	.51	21.38	3.2	25.45	76.3
Pendulina.....	Fresno.	Nov. 4, '90	14.8	85.2	1.04	17.40	7.0	20.5	82.6
No Name.....	Fresno.	Nov. 4, '90	17.6	82.4	.83	16.63	5.0	20.2	80.2
Atro-violacea.....	Fresno.	Nov. 4, '90	23.7	76.3	1.29	13.78	5.0	18.1	83.2
Nevadillo blanco.....	Fresno.	Nov. 4, '90	17.5	82.5	1.16	18.02	6.6	22.0	84.5
Nevadillo blanco.....	Mission San Jose.	Jan. 13, '91	24.0	76.0	1.06	23.94	4.4	31.5	86.5
Nevadillo blanco.....	Berkeley.	Jan. 7, '91	25.0	75.0	1.05	22.72	4.2	30.3	83.2
No. 10 in Row.....	Berkeley.	Jan. 7, '91	39.5	60.5	1.34	18.00	4.4	26.0	80.3
No. 2 in Row.....	Berkeley.	Jan. 7, '91	36.5	63.5	.....	.....	.....	.....	.....
Redding Picholine.....	Mission San Jose.	Jan. 8, '91	29.0	71.0	1.83	21.87	6.5	30.8	.....
Mission.....	Mission San Jose.	Jan. 8, '91	23.5	76.5	.94	19.07	4.0	24.9	81.0
Rubra.....	Fresno.	Feb. 5, '91	19.5	80.5	.80	17.69	4.1	21.97	74.2

### PROPORTION OF PIT TO FLESH.

The first column, exhibiting the proportion of pit and flesh contained in the fruit of the different varieties, shows a maximum of 87 per cent of flesh in the Manzanillo from Fresno, and a minimum of 63.5 per cent in No. 2 (seedling) from Berkeley. On the other hand, the percentages of pits were 13 for the former and 36.5 for the latter. Between the Manzanillo from Fresno and that from Berkeley there is a difference of 3 per cent both in pit and flesh; this is doubtless due to the growth of the former in irrigated land.

The same can be said for the differences existing between the Nevadillo from Fresno and that from Berkeley and Mission San Jose. Summarily the varieties represented could be arranged as follows in regard to smallness of pit and largest amount of flesh: 1. Manzanillo. 2. Pendulina. 3. Nevadillo blanco. 4. No name (Cerasola?) 5. Rubra. 6. Mission. 7. Atro-violacea. 8. Redding Picholine. 9. No. 10 (seedling). 10. No. 2 (seedling).

These determinations, which will be continued next season on all obtainable varieties, are very important, because they show especially which kinds are most suitable for pickling purposes, for which the finest and largest olives with the smallest pit are required.

### QUANTITY OF OIL.

The next determinations were made with

the object of ascertaining the quantity of oil contained in the different varieties.

Of all the varieties represented in the above table, only the Atro-violacea from Fresno, and those from Berkeley, showed exactly the right degree of maturity for oil-making; hence the results obtained cannot be taken as representing exactly the respective practical values of the several kinds. However, with the exception of the Redding Picholine from Mission San Jose, the maturity of which was very far advanced, the other varieties give results which may be considered as showing approximately their relative capabilities.

From these determinations, taking into consideration the degree of maturity of the olives, it appears that the Nevadillo blanco from Berkeley and Mission San Jose contains more oil than the same from Fresno, while in the latter locality, the Manzanillo has produced a little more oil than the Nevadillo; but the Manzanillo from Berkeley contains more oil than that from Fresno.

The minimum is shown by the Atro-violacea from Fresno, which was the best-conditioned sample received from that locality.

It is extremely probable therefore, that these consistent differences between the Fresno olives and those from the other localities are mainly due to the growth of the former on flat and heavily irrigated ground, tending to produce watery fruit with relatively little oil, particularly where bottom water lies near the surface. With respect to the quantity of oil contained in them, these varieties can, according to these tests, be arranged as follows:

*For Fresno*.—1, Manzanillo; 2, Nevadillo blanco; 3, Rubra; 4, Pendulina; 5, no name (Cerasola?); 6, Atro-violacea.

*For Mission San Jose*.—1, Nevadillo blanco; 2, Mission. The Redding Picholine cannot be taken into consideration on account of its very advanced maturity.

*For Berkeley*.—1, Nevadillo blanco; 2, Manzanillo; 3, No. 10 Seedling.

If we consider the quantity of oil that the pit may yield, we find the largest percentage in the Pendulina and the smallest in the Manzanillo, both from Fresno; and glancing at the oil yield of the pits of the other varieties, we may conclude that it will be a more or less important consideration, according to the purposes that the oil-maker has in view, or according to the special conditions of his locality.

### QUALITY OF OIL.

According to European experience the oil-maker who intends to produce oil of the highest quality must avoid, in its extraction, the grinding of the pits. The kernel contains an oil of inferior quality, which becomes rancid quickly and will spoil the fine oil from the pulp. An exception may exist in the case of varieties which, like the Mission, have abortive kernels.

The crushing of the pits may of course be avoided by the use of adjustable crushers, which crush the pulp while allowing the pit to pass intact.

In this manner oil of very high quality is obtained. Practically, the small quantity of oil yielded by the pits may be neglected, because this loss will be largely repaid by the higher price at which superfine oil can be sold. This loss, moreover, concerns only the first pressing, for the pomace can then be passed again through the mill in order to grind the pits and to have a homogeneous paste with the residues from the pulp. This paste at the second pressing will give a common oil, of edible quality, which would find a market at a lower price.

I would not now advise making a third quality of oil, or extracting the oil from the oil-

more than 84.5 as a standard and consider as adulterated every oil which passes this limit.

The maximum of iodine absorption by our pressed oils was 86.5, and in those obtained by extraction by carbon bisulphide was 80.6. All the other oils obtained by chemical extraction showed the iodine absorption smaller than that of the same oils when obtained by pressing.

We cannot, therefore, rely implicitly upon this method for discovering slight adulterations in California oils, and must extend the limit usually admitted for this factor (84.5) at least up to 86.6 for pure oils.

Taking 88.0 as the extreme upper limit, it should be mentioned that among a number of samples of oil sent us by producers and others, the extreme minimum of iodine absorption was found to be 81.1, while among the highest figures were 89.2 and 92.9. Accordingly these two samples might be considered as adulterated; but as yet we reserve our judgment in the premises.

In view of this uncertainty it will be well to mention here a simple and sure method by which adulteration with cottonseed oil (most used for adulteration) can quickly be discovered. It was devised by Prof. E. Bechi, director of the Agricultural Station at Florence, Italy. It has been officially adopted in the chemical laboratories of the Italian Customhouses. This method serves to reveal the presence of cottonseed oil in all seed oils, and even in cod-liver oil. It may be briefly thus described:

An alcoholic solution of nitrate of silver is made in the following way:

Nitrate of silver.....	1 gram
Alcohol at 95°.....	200 cubic centimeters
Ethyl ("sulphuric") ether.....	40 cubic centimeters
Nitric acid.....	0.1 gram

Another solution also is made of:

Amylic alcohol (fused oil).....	100 cubic centimeters
Pure colza (rapeseed) oil.....	15 cubic centimeters

The reaction is made in the following way: To 10 cubic centimeters of the oil to be tested add one cubic centimeter of the silver reagent and 10 cubic centimeters of the solution of colza oil in amylic alcohol; stir briskly and divide the mixture so obtained into two equal parts; warm one-half for a quarter of an hour at the boiling point of water, and compare with the other half to see if there has been any change of color. In case of any addition of cottonseed oil a dark brownish-red coloration will be obtained.

According to the author the same result may be obtained without using colza oil, but he employs it in order to obtain always a uniform coloration. As can be seen, this method is very simple and within everyone's reach. By its means we can be sure of the purity of the product we are buying.

### GRAPE CUTTINGS FROM FRANCE.

We are indebted to the kindness of the distinguished French ampelographer, Prof. V. Pulliat, for cuttings of 21 varieties of grapes, 11 of which are new to California, or very little known. These are the following:

1. Madeleine angevine. 2. Chasselas Coulard.
3. Agostenga. 4. Pis de chevre rouge. 5. Madeleine royale. 6. Calabrese. 7. Malvoisie jaune du Piemont. 8. Schiradzouli de la Perse. 9. Persan noir de la Savoie. 10. San Antoni. 11. Raisaine.

L. PAPARELLI.  
Berkeley, March 28, 1891.

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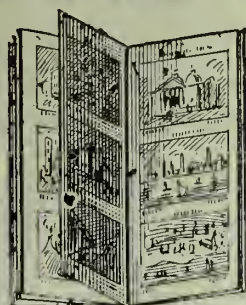
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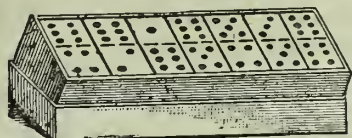


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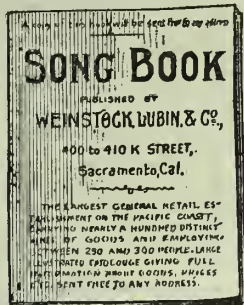


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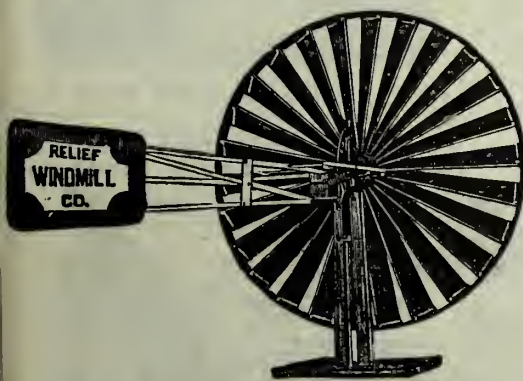
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DURABLE!

Over 5000 in Use!

IT COMBINES SIMPLICITY  
AND STRENGTH!

It is used for County work by the Supervisors of Merced, Stanislaus and San Joaquin Counties.

Our Irrigating Wind Mills of large size, with 20 to 30 foot wheels, manufactured to order. Deep-Well Abbott Pumps, Tanks, Casks, Spring Towers, Water Troughs and Irrigating Outfits. Send for Our Circular.

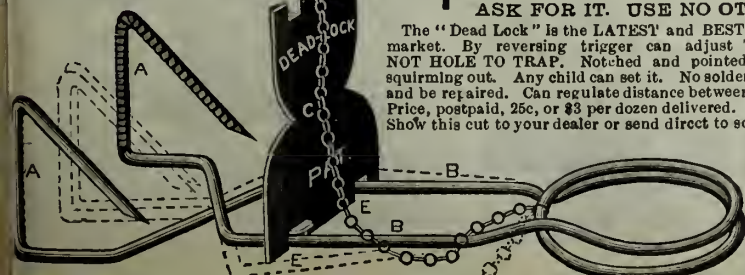
## RELIEF WIND MILL CO.,

Near Railroad Depot.

Stockton, Cal.

## Dead Lock Gopher and Mole Trap.

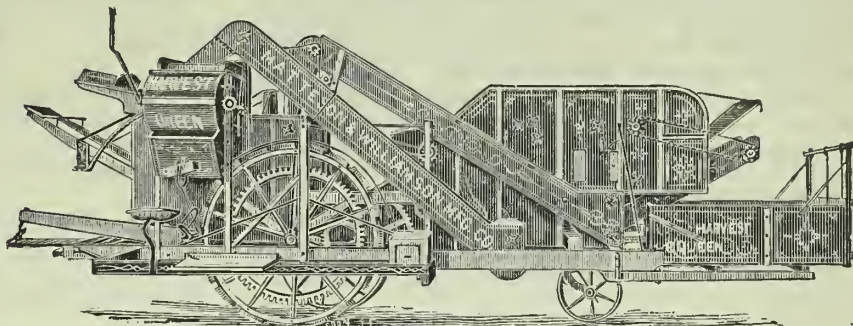
ASK FOR IT. USE NO OTHER.



The "Dead Lock" is the LATEST and BEST single trap on the market. By reversing trigger can adjust TRAP TO HOLE, NOT HOLE TO TRAP. Notched and pointed jaws prevent any squirming out. Any child can set it. No soldered joints to loosen and be repaired. Can regulate distance between jaws and trigger. Price, postpaid, 25c, or \$3 per dozen delivered. Special club rates. Show this cut to your dealer or send direct to sole manufacturers:

IRA F. WHITE & SON,  
Pomona, Cal.

## The Harvest Queen COMBINED HARVESTER.



### The Lightest Draft Harvester in the Market.

ENDORSED BY ALL FARMERS AND RANCHERS. SATISFACTION GUARANTEED. NONE EVER RETURNED.

### POINTS OF MERIT:

FIRST—Having two pivot wheels on the ground enables it to turn square corners like a mowing machine.  
SECOND—All of the frame work about the cylinder is the best of oak lined with sheet steel and put on with screws. Other parts built of the best of material and painted inside and out.  
THIRD—The driver is NOT isolated by a ladder from the machine, but is safely seated on the separator, where he can hear and see the working of the machine and drive to suit.  
FOURTH—The new cleaner put on last season works perfectly.  
FIFTH—The machine is so geared that the cleaner, separator or header can be started independently of each other.  
SIXTH—The header is portable. By the use of our supplemental truck we can pass a 16-foot header through a 12-foot gate.  
SEVENTH—The shaftings are all made of steel.

### SIZES, 10 TO 16 FEET.

Send for Price List.

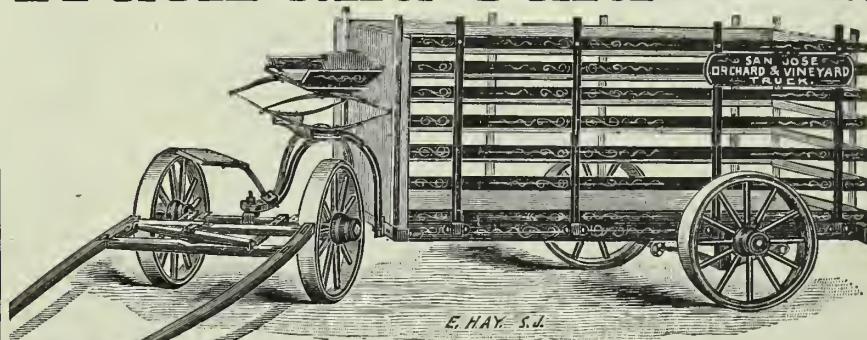
With all our Machines we furnish Straw Dump and Header Truck separate from Machine. Machines delivered on board cars or b. at.

## The Matteson & Williamson Mfg. Co.,

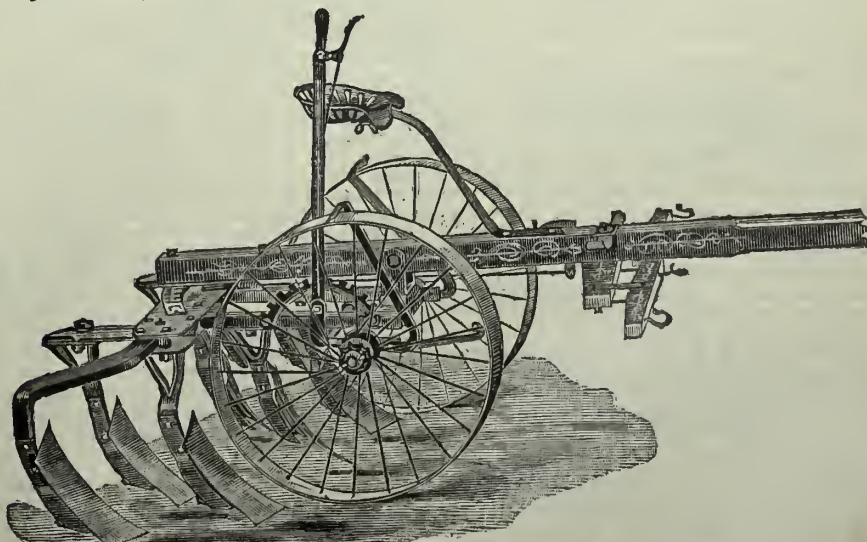
MANUFACTURERS OF ALL KINDS OF AGRICULTURAL IMPLEMENTS,

Office and Works, - - - No. 370 Main Street, STOCKTON, CAL.

## THE SAN JOSE ORCHARD AND VINEYARD Truck and Cultivator.



Just the thing for the Orchard and Vineyard, built low, with Goose Neck in front, enabling a very short turn, low wheels, broad tire, with springs or without, built any size or capacity.



Greatly Improved, made entirely of Iron and Steel, easily handled and adjusted; teeth extend outside of wheels, in fact the Most Perfect Cultivating Tool ever put on the market.

Write for Circulars. Address

SAN JOSE AGRICULTURAL WORKS, San Jose, Cal.



## THE STABLE.

### The Thoroughbred.

This term is applied only to the race horse with five crosses, found in the stud-book, which is a record of horses bred for racing purposes since about the year 1700, the complete pedigree commencing about 1759. The English race horse is a cross between the common mares of the country and the horse from the Barbary Coast, known as the Barb. Charles II imported a lot of mares from Tangiers, a town in Morocco. These were called royal mares, and were of the breed called Barbs. At various times studs were imported to improve the stock. Among the number were Darby Arabian and Godolphin Arabian.

Thus the foundation for the thoroughbred family was laid. The great distinguishing traits of the thoroughbred are beauty, strength, action and power to sustain a fast gait for a longer period than other horses. This enables him to go long distances and carry heavy weight at a greater speed than other breeds.

He was probably first bred in England for the turf, but the traits which crowned him there soon made him popular everywhere. He was soon found at the front in the chase, in the stage coach, in the gentleman's carriage, and even in the plow. The first importation of thoroughbreds to America was in 1725 and 1730. At various times importations have been made which formed the basis of the thoroughbreds of America. Recent Arabian importations have been made, but are not considered desirable. To maintain and improve the good qualities of the thoroughbred is a problem which has been before the breeders for over 200 years. The law of like begetting like and the race track have done the work. A horse that ran fast and carried heavy weight, coupled to a mare that could do the same thing, would likely produce a foal with the good qualities of its dam and its sire. After years of such trial and breeding, the type of the thoroughbred has been fixed as no other breed, for no other has had such a long and severe test, or has been bred with such care.

Horse racing has been licensed in England and America because it was thought necessary to develop the horse. It has certainly done this, whatever else it may have done for a certain class of men who follow the turf for gambling purposes. It does seem that this might be done and the horse developed without any of the evil influences which attend it at the ordinary track. It is as much our duty to make the most of this gift of God, the horse, as any other. He gave us the horse, just as he gives us other things, not in the highest condition, but in a state which needed development. It is as much our duty to do this as to build railroads or other national improvements. This is a fast age, and the demands upon us are such we cannot drive a slow horse. A business man's time is too precious to lose an hour each day by driving a slow team. We are paying too much to the man who drives our plow to tolerate a slow team. The sun is too hot in the harvest-field for the heavy horse with his thick skin and poor lungs. The machinery must stop for hours each hot day or you lose such a horse. The stopping of machinery and men in the field means heavy loss. We need a horse for all purposes, with the traits of the thoroughbred, but a little more weight than many of them possess. When four-mile races were in fashion our horses had to carry heavy weights, and nothing but strong horses could succeed. If our horses had to carry heavy weights as they do in Australia, and run long distances, as was once popular in America, it would greatly improve the thoroughbred. It should be remembered that horse racing is licensed only to improve the horse, not for gambling purposes. A four-mile horse with ability to carry weight would have to be large and he would be the best all-purpose horse in the world.

It has been found that weight on the back of a horse, a long track before him, and a spur in the side to urge him to his best, is the most successful way to test a horse in all those essential points which make a good animal. His skin, his lungs, his bones, his muscles and his nervous system all go to make his strength, action, speed and staying qualities. None of these can be seen by the eye with certainty. The horse may be well-shaped but porous, and have but little substance. The muscles may be well developed, but like a loosely-twisted string, have no strength. The skin may be sleek and velvety, but without the power to throw off heat. The lung or chest capacity may be good, and the horse have no wind, because texture of the lungs is not elastic and tough. Last, but not least, his brain and nervous system may be so sluggish that the horse has no power to move quickly, and has no courage.

It will readily be seen that tests of all these things are necessary to the production of a first-class breed of horses, and the tests should be made for years and the breeding done with these things in view. It will readily be seen also, that the thoroughbred is the only horse we now have whose breeding and test have been sufficient to justify any great expectation. The trotting horse is a coming horse, but his

pedigree is too short—there are too many blanks.

The heavy horse for farm-work in this climate does not stand the heat, and is too slow. Near the sea-shore, and for a short time—for his life is short—he may do heavy work. But in my opinion, after a trial of over 40 years in a warm climate, the thoroughbred, crossed with a good-sized common horse, makes the best all-purpose animal.—N. W. Motheral, in *Tulare Register*.

## AGRICULTURAL ENGINEER

### The New Road Law.

The new general road law which was prepared in committee and amended several times, passed the Legislature and has been approved by the Governor. The main provisions are as follows:

The Board of Supervisors shall divide the county into suitable road districts and each Supervisor shall be ex-officio Road Commissioner in his supervisor district and shall see that all contracts and orders pertaining to roads and bridges are properly executed.

After the first Monday following the first day in January, 1893, the office of road overseer shall be abolished.

The Supervisors may cause highways to be surveyed, laid out, recorded and opened, abolished or abandoned such as are not necessary, contract, purchase or otherwise acquire right of way over private property for the use of public highway; advertise for sealed bids for keeping in order and repair all roads, culverts and bridges, provided that, in their discretion, they may exclude from such contracts the repairing of bridges. If no bids are received or accepted the Board may order the work to be performed by the Road Commissioner.

If a contractor neglects or fails to perform his contract, the Road Commissioner shall notify him, and if the contractor does not use reasonable diligence in complying with such notice, the Road Commissioner shall cause the work to be done by others, and the cost shall be deducted from the quarterly allowance of such contractor.

The Board of Supervisors may appoint one road inspector at a compensation not to exceed the sum allowed by law as the total compensation of the Road Commissioners, and he shall act in their stead. The Board must advertise for sealed bids to maintain roads. Such contracts must be awarded separately for each road district and to a qualified elector. The Board shall annually levy a tax not exceeding \$3 on each man between 21 and 55 years of age. These are the main provisions.

The Road Commissioner shall inspect the work done under such contracts and ordered and make a written report four times a year. The Board shall thereupon pay the amount found due the contractor for the preceding quarter from the funds of the road district embraced in his contract.

In their discretion the Supervisors may designate mile stones and guide posts. They may erect water works for the purpose of watering roads.

The Road Commissioner, under the direction of the Board of Supervisors, must take charge of the highways within his district, shall employ men, teams, watering carts and all help necessary. No Commissioner shall be interested, directly or indirectly, in any contract or work to be done in his district. He shall keep the roads free from obstructions and in good repair, destroy weeds, cause banks to be graded and bridges to be made. He must make quarterly reports under oath of the number of days he has been employed, wages, receipts, etc. He shall receive for his services 20 cents per mile one way for all distances actually traveled in the performance of his duties (he shall not in any one year receive more than \$300).

**NEW IMMIGRATION LAWS.**—The amendment made by the last Congress to the immigration law, and relative to the importation of aliens under contract or agreement to perform labor, was put into effect on April 1st. The amendment creates the office of Superintendent of Immigration, who is to be appointed by the President, with a salary of \$4000 per annum. The new law makes it an offense for any steamship or transportation company to invite or encourage the immigration of any alien through agents, either by writing or printing, or by oral solicitation, except by ordinary commercial letters or advertisements, merely giving the sailing date of vessels and terms and facilities of transportation. The amendment makes it an offense to encourage any alien to migrate to this country on the strength of any printed advertisements or circulars holding out offers of employment. All aliens coming on such representations will be treated as contract laborers. This does not apply to State Immigration Bureau's offers.

**BOOTS WITH STONE SOLES.**—A German inventor proposes to make boots with stone soles. He mixes with a water-proof glue a suitable quantity of clean quartz sand, which is spread on the thin leather sole employed as a foundation. These quartz soles are said to be very flexible and almost indestructible, while they enable the wearer to walk safely over slippery roads.

## Improved Ranch

### FOR SALE.

### Artesian, Raisin and Fruit Lands.

Located seven miles southwest of Tulare City and three miles from Tokay Switch on the Southern Pacific Railroad. It is centrally located in the artesian belt of Tulare county, and has one flowing well, capable of irrigating 100 acres, the depth to the main flow being only 308 feet. The water is soft for washing, healthful to drink, and contains no substance injurious to vegetation. A reservoir of one acre surrounded with handsome trees, receives the water from the well. Several ditches carry it in different directions on to the land.

The whole 180 acres (quarter-section) is unusually level, is entirely enclosed with fencing, and cross-fences partition the land into several enclosures for pasturage purposes.

The improvements consist of a modern style, two-story, hard finished house, containing seven rooms, with walled cellar, kitchen and porches additional, surrounded with elegant shade trees, etc.; a large barn, storehouse, blacksmith shop, windmill, sheds, stables, etc.

In front of the place is a row of about 40 well-grown elm and Carolina trees. There are eight acres of orchard and vineyard, mostly in bearing, 30 acres of alfalfa, several miles of ditches and 40 acres of land checked and leveled.

The soil is dark Tulare lake bottom land, very productive, grows all kinds of tropical and semi-tropical fruits, except apples, and is especially adapted to the growth of alfalfa and for stock range. Water of good quality is found at ten feet from the surface. There are three surface wells on the place.

The climate is as healthful as any part of the Sacramento or San Joaquin valleys. Adjoining lands are supplied with water for irrigation from Elk Bayou, a never-dry stream, lying one mile from these lands, and water can be had on the land from the same source.

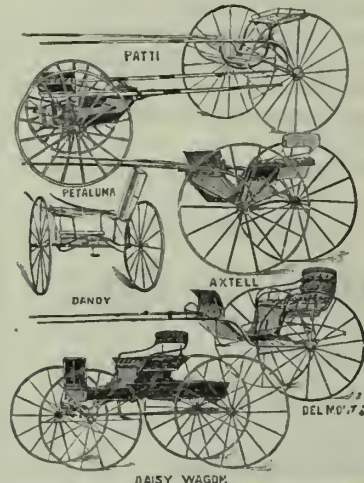
The simple fact that abundance of artesian water can be had so cheaply on this land will soon make the water alone worth more than the land is now offered for.

The owner (not being a farmer) is determined to sell at the best price offered soon. The land is under cultivation, except necessary pastures. Terms easy.

Three hundred and twenty acres of improved land adjoining will also be sold cheap and on easy terms, in tracts of 40 acres or upward, to suit.

Also 180 acres just outside of Tulare City limits, surveyed out in five-acre lots. The whole will be sold for cash for much less than its real value if applied for soon.

Call on or address E. M. DEWEY, Porterville, or A. T. DEWEY, 220 Market Street, San Francisco.



Write us for prices and full particulars. Address TRUMAN, HOOKER & CO., SAN FRANCISCO.....and.....FRESNO.

## IT STANDS AT THE HEAD!



DO NOT FAIL to SEE THE "DOMESTIC" Before Buying a Sewing Machine.

It is the lead in practical progress. Send for price list W. EVANS, 29 Post St., S. F.

## FRANCIS SMITH & CO.

Manufacturers of Sheet Iron and Steel

## PIPE!

ALL SIZES.

130 Beale Street, San Francisco, Cal

Iron cut, punched and formed, for making pipe on ground. All kinds of Tools supplied for making Pipe. Estimates given. Are prepared for coating all sizes of Pipe with a composition of Coal Tar and Asphaltum.

## HOME INDUSTRY.

If you buy

Mohr & York's

CANNED (COOKED) CORN BEEF

You will get the best and at the same time benefit the producer. Also manufacturers of BONE DUST.

## BUTTER COLOR

Trial package of OSGOOD'S Butter Color Powder for 4 cents in stamps. 2-cent package by mail on receipt of price. Price in bulk to Creameries. Ask your grocer for it. H. M. & J. D. LONG, Williamsville, Erie Co., N. Y. Mention this paper.

## FOR SALE!

## PINOLITO OLIVE RANCH!!!

### FORTY-SIX ACRES OF HILL LAND

In the Town of Auburn, Placer Co.

Red soil, superimposed upon upturned, friable, decomposing slate, yielding iron and alumina, thus furnishing a soil which, as Prof. Hilgard said after his analysis, will retain moisture, will not require irrigation, and will not allow the vegetable mold to leech away; thus suited to the growth of fruit trees, especially the olive, as has been demonstrated both by the remarkable growth of the tree and the yield and the quality of oil.

It is situated only 15 minutes walk from Auburn Station—the C. P. R. R. passes along one side—and is a less distance from the Court House. Thirty acres improved and planted to olives, set at long distances for permanent growth, and other fruits planted between the rows for temporary profits, mostly peaches of three best varieties, ripening in succession; prunes, mostly Petite; plums of several varieties, as Kelsey, Japan, Shropshire Damson, etc.; figs of several best varieties; a few apples, nectarines, blackberries, etc. Two acres of table and raisin grapes, never irrigated, the vines remarkably vigorous and in full bearing. The trees, especially the 1500 olive, have all been planted with regard to permanency. About one-half of them have an orchard growth of seven years; fruited last year 300 pounds, this year nearly one ton. They are mostly Mission and Picholine, with a few trees of other choice varieties. Two crops of the olives have been pressed. The yield has been, for the first press, 14 per cent of very clear delicious table oil, and four per cent from the second press—the Picholine yielding this, of a peculiarly clear, nutty oil.

There is on the ranch a few acres of grain sown for hay; two acres of well-set alfalfa, below the Auburn ditch, which crosses one corner of the property; also a small house of four rooms and a kitchen; a well of good water; a small barn; a strong, permanent spring of soft, cold water, which wells up through the slate; a two-inch iron pipe connects the spring with an iron-bound 20,000-gallon tank, situated on a beautiful pine clad hill 40 feet above the spring, a point which overlooks the town and gives very charming distant views, and is one of the most lovely sites for a residence to be found. The water is pumped to the tank by a duplex pump; the power, a four-horse steam engine, which furnishes power sufficient to pump, saw wood, run an olive crusher and do all needed shop work.

The land is all suited to fruit, excepting along a rocky ridge, which furnishes three very desirable residence sites, and the olive, set promiscuously, thrives finely among the rocks. The property can be conveniently divided along a sag which separates two of the high knobs, and water from the spring can be pumped to each of them.

This desirable property is now offered for sale for less than the improvements cost. The land is fenced, the title good and unencumbered. It is connected by a roadway, which is one of the improvements made, with one of the principal streets of Auburn.

The sale will convey the entire plant, furniture in the house, all utensils, etc. If sold before April 1st the sale will include the coming crop. If later, the crop will be reserved, unless otherwise by special agreement. If desired, one-half the purchase money can remain five years, secured by mortgage at eight per cent. For price and any further information desired, address

A. H. AGARD,

No. 1259 Alice Street, - - Oakland, Cal



ASK YOUR GROCER FOR IT

MATTHIAS GRAY CO., 206 POST STREET, SAN FRANCISCO

## STEINWAY.

GABLER-PEASE

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PACKARD Organs.

Importer of American and Foreign Band Instruments, Accordions, Violins, Guitars, Sheet Music, Books, Etc.

DO YOU WANT A Profitable Business? Do you wish to SUCCEED where others fail? Then

## BORE WELLS

with our famous Well Machinery. The only perfect self-cleaning and fast-dropping tools in use.

LOOMIS & NYMAN, TIFFIN, OHIO.



PARTIES DESIRING, IN GOOD FAITH, to purchase from the U. S. Quarter-Sections of Sugar Pine Timber Land, should write or apply for information to STORY & CUTTING, Surveyors and Land Agents, Rooms 28 and 27, No 420 California St., San Francisco. Bes of references furnished.



# STOCKTON COMBINED HARVESTER AND AGRICULTURAL WORKS,

MANUFACTURERS OF

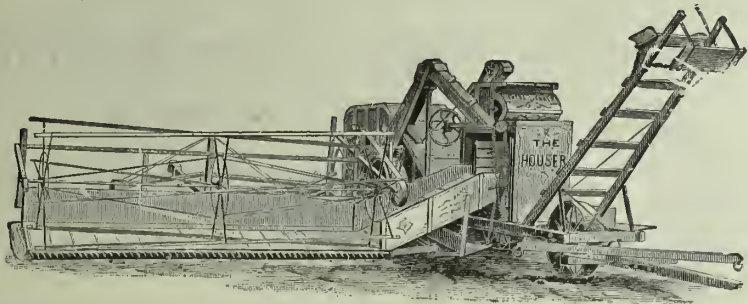
## COMBINED HARVESTERS—CHAIN, BELT OR GEAR.

The Houser Belt Combined Header and Thresher

IS OUR STANDARD MAKE.

THE BEST KNOWN AND MOST POPULAR MACHINE ON THE COAST.

It is Lighter Draft than any Other Make of Combined Harvesters.



WE USE FOR AN EXTRA CLEANER,

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THE ONLY SUCCESSFUL HARVESTER CLEANER MADE.

THRESHING MACHINES OF GREATER CLEANING CAPACITY THAN ANY OTHER MACHINE ON THE COAST.

STAR HEADERS, STOCKTON GANG PLOWS, MOLDS AND OTHER EXTRAS.

Boilers and Engines, Structural and Bridge Work, and Repairing of Every Description.

SEND FOR CIRCULARS, AND FOR FURTHER INFORMATION ADDRESS

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## MILLER LIGHTNING HAY PRESSES.

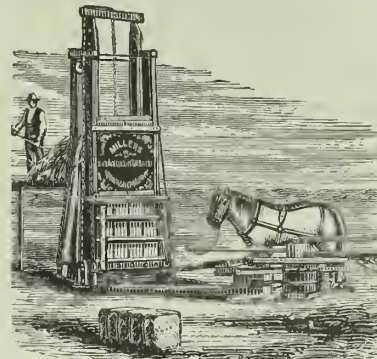
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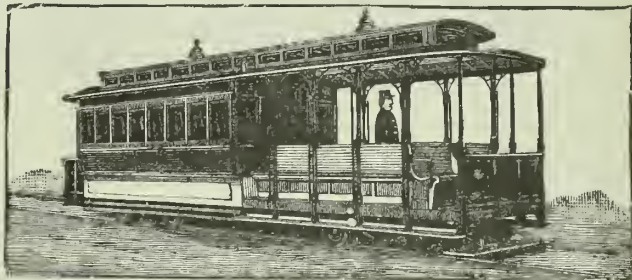
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AND FREIGHT  
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OF CALIFORNIA,  
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Authorized Capital.....\$1,000,000  
Capital paid up and Reserve Fund 800,000  
Dividends paid to Stockholders... 675,000

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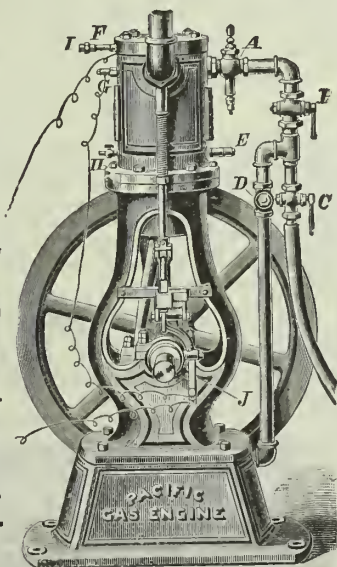
A. D. LOGAN.....President  
I. C. STEELE.....Vice-President  
ALBERT MONTPELLIER.....Cashier and Manager  
FRANK McMULLEN.....Secretary  
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H. N. Rucker, Stockton.....5-H. P., Launch  
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Kilgore & Co., Sacramento.....2-H. P., Pumping  
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" " " ".....5-H. P., Launch  
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J. M. Asher, El Cajon.....2-H. P., Pumping  
Palmer & Rey, Perris.....2-H. P., Printing  
M. Hanson, Belmont.....2-H. P., Pumping  
H. F. Allen, Ross Station.....2-H. P., Pumping  
M. V. Lacaze, City.....2-H. P., Printing  
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Theirboch & Krager, San Francisco.....6-H. P., Spice Mill  
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Frank Emhoff, Five Mile House.....2-H. P., Pumping  
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T. S. Clarke, San Diego.....2-H. P., Pumping  
Merced Development Co.....2-H. P., Pumping  
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Carrier Dove Printing Office.....2-H. P., Printing  
S. B. Patrick, Visalia.....2-H. P., Printing  
John Keifer, San Pedro.....1-H. P., Launch  
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E. Bedford, San Diego.....2-H. P., Pumping  
Jas. Budd, Stockton.....2-H. P., Pumping  
Santa Ana Free Press, Santa Ana.....2-H. P., Printing  
Merced Land & Fruit Co., Merced.....2-H. P., Pumping  
Donahoe, Emmons & Co., Reedley.....2-H. P., Pumping  
H. F. Gabel, City.....2-H. P., Tailor Shop  
Gualala Mill Co.....2-H. P., Launch  
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Jos. A. Cowen, Petaluma.....2-H. P., Printing  
Madera Mercury, Madera.....2-H. P., Printing  
M. Taaffe, Mountain View.....2-H. P., Pipe Cutting  
N. M. Benjamin, City.....1-H. P., Ice Cream  
R. H. Floyd, Clear Lake.....2-H. P., Launch  
J. W. Gender, City.....2-H. P., Confectionery  
R. Caldwell, Lake Tahoe.....4-H. P., Pumping  
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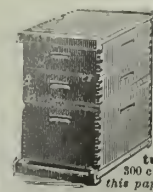
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## THE DAIRY.

## Milking Shorthorns.

EDITORS PRESS:—Mr. H. S. Maltby of Placer county has been paying a visit to Baden, and took home with him the fine Shorthorn bull calf, Fawley Duke 21st. This calf was never allowed to suck a cow, but fed his milk from a bucket from the day he was born, and after the time he was three months old he was fed skim milk, mixed with a little oilcake gruel and no new milk. His weight in San Francisco, when 10 months and 10 days old, was 850 pounds. He and some others had been out of doors night and day since the beginning of January, with the exception of some five or six wet and stormy nights, there being a feed trough in the field, but no shade and not much shelter.

Fawley Duke 21st is descended from import. and Fawley Garland 4th, of Sir C. Knightley's Ruby tribe, that became and long continued famous in his hands for its dairy properties.

Mr. Maltby's intention is to start a dairy on his farm in Placer county, and he could not have made a better selection of a bull, with growing and milking qualities combined; the one he bought being of the same family, and almost exactly of the same blood and breeding as the cow Baden Ruby 5th, exhibited by me at the last California State Fair for the premium offered by the American Shorthorn Breeders' Association for the best milking Shorthorn cow. Baden Ruby 5th gave an average of over 40 pounds of milk a day for seven consecutive days at Sacramento, two months after she had her calf, which certainly is a fairly good record, all things considered—27 hours in railway car, change from a cool to a hot climate as well as strange surroundings, all in the season of dry feed. I had one other cow, White Maid, entered for the same premium; she had calved over three months and gave an average of over 30 pounds a day at Sacramento.

Mr. P. Peterson had also three cows entered for the same premium, which, however, was not awarded to any one of the cows entered, for what reason, if any, the exhibitors are left in entire ignorance. ROBT. ASHBURNER.

Baden Station San Mateo Co.

A WORLD'S RAILWAY.—America, argues ex-Governor William Gilpin of Colorado, is a fallow continent, capable of sustaining half a billion people in happiness and plenty. It is the mission of the United States to be the distributor of food to the hungry of both Europe and Asia, lying as it does, midway between them. The time is at hand when all the ships of the seas will not be sufficient to carry the articles of commerce around the world to the nations fast enough. Then will come necessity for more rapid transportation. The plan of this transportation has been the dream of Gov. Gilpin for 47 years, and he prophesied its construction at an early date from that time. He has made one more prophecy. It is that the next great project in the world's material development will be the building of what he calls the Cosmopolitan railway—a railroad which shall girdle the earth. The first link in the chain is the Transcontinental road of the United States. Starting from the western terminus of that, the Cosmopolitan road will extend northward through Alaska, skirting the base of the Rocky mountains, where are plateaus that will render the building easy. Then will come Behring's strait, 48 miles wide, with a large island at its very center. There are no icebergs in the straits, and it is shallow water all the way across with hard bottom and no engineering difficulties. Once across, the road would connect with the Russian railway through Siberia, connecting again with western and southern roads through Asia, Europe and Africa, and the work would be done.

COMMERCIAL DRUMMERS OF ENGLISH ORIGIN. An American who visited England more than half a century ago, when the commercial drummer hardly had an existence in this country, writes of this class of people in England as follows: "The commercial traveler is generally a young and very shrewd individual, possessing a great enervity of manner and a remarkable ability to suit himself readily to all the varied moods of his varied customers. Furnished by his principals with choice samples of their goods, he steps into his chaise, or the stage, and with a light heart commences his circuit. At each town upon his route he carries at the principal inn, where he is sure to find a hearty welcome. After thus encoining himself in comfortable quarters, he arranges his samples, and if it be forenoon puts them under his arm and issues forth to visit the storekeepers. Wherever he goes he is met with cordiality. Like all travelers, he is full of anecdote, and has at his command the rarest news of the time. None are more glad to see him than the storekeepers' wives and daughters. To these he imparts the most recent scandal and the latest fashions, affording them subjects for gossip until his next visit to the town. To the tradesman he lends his samples with all the eloquence and ingenuity of which he is capable, and seldom leaves without making considerable bargains."

## Unitarian Literature

Sent free by the CHANNING AUXILIARY of the First Unitarian Church, cor. Geary and Franklin Sts., San Francisco. Address Mrs. B. F. Giddings as above.

## Notices of Recent Patents.

Among the patents recently obtained through Dewey & Co.'s SCIENTIFIC PRESS U. S. and Foreign Patent Agency, the following are worthy of special mention:

DEVICE FOR CONTROLLING HORSES.—Edwin J. Fraser, 112 Kearny, S. F. No. 448,330. Dated March 17, 1891. This device is intended for controlling spirited, vicious, or hard-mouthed horses, and it consists of pads adapted to press upon and close the nasal passages, and a means by which said pads are actuated in connection with the bit and reins so that the operation of the device will be automatic, acting to compress the nasal passages when the horse commences to pull too hard and instantly relieving itself when he becomes quiet.

PRUNING IMPLEMENT.—James W. Perry & Robt. H. Dixon, Santa Rosa, Sonoma Co. No. 448,363. Dated March 17, 1891. This invention relates to the general class of pruning shears and especially to that sub-class having a sliding or movable fulcrum between the opposing members, whereby what is known as a "draw cut" may be had. By the peculiar construction the blade has its longitudinal movement independent of the handles, which latter therefore remain in the same position and do not move lengthwise, as is customary with one or both handles in other form of shears wherein a sliding fulcrum is employed to provide for a draw cut. Therefore these shears are less tiresome to use, as the handles do not move lengthwise in the hand but remain stationary in that respect.

SEPARATOR.—Fairfax H. Wheelan, Santa Barbara. No. 448,394. Dated March 17, 1891. This is a machine specially adapted for cleaning wheat and the cereals and leguminous seeds by separating them from the particles of dirt and other foreign material. The principle of separation involved in this device is that of frictional contact. Separation which depends on differences in size and upon differences in weight cannot be had where such differences do not exist. Thus with cereals and pulse it often happens that particles of dirt and rock have equal size and weight with the grains or seed of the material to be saved; but such particles have not the same character of surface, and by this is meant not particularly form or shape, but smoothness and roughness. As a matter of fact, the surface of grains and seeds is much smoother than that of the particles of dirt and rock which are mixed with them. This invention is based on this fact; and its object is to separate thoroughly the foreign particles from the seeds and grains and even to separate out imperfect and mutilated grains and seeds, and branches, twigs, etc.

SWINGING HOSE-REEL.—Wm. F. Bowers, S. F. No. 449,033. Dated March 24, 1891. The invention relates to that class of hose-reels which are secured to the wall and are so mounted as to swing, suitable water-joints being provided to allow the uninterrupted flow of the water, no matter to what position the reel may be turned. The object of the invention is to produce a simple and effective hose-reel of this class.

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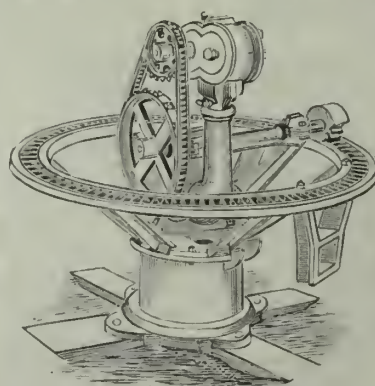
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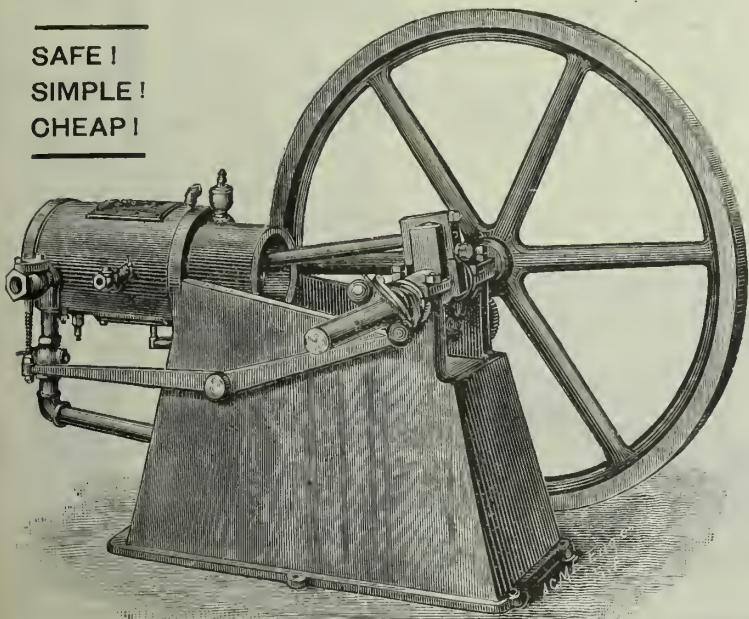
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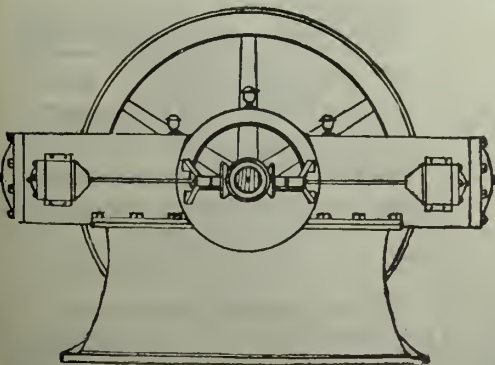
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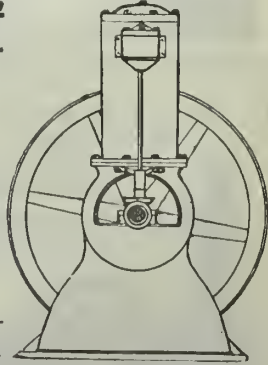
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No Boiler, Fire, Smoke, Steam, Ashes or Heat. No Engineer, No License, No Danger. Single and Double Acting. 1/2 H.P. to 20 H.P.

GENTLEMEN—The 2-H. P. Engine received and set up yesterday. We attached it to part of the machinery in my shop, and it ran my Drill Press, a small Lathe, a large 24 inch by 14-foot Lathe, and a set of Emery Wheels, all of which it handled easily, to our great surprise.  
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Yours very respectfully,  
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GENTLEMEN—I am satisfied, after running for over a month my Bean Cleaner, etc., with the 4-H. P. Engine you sent me, that it is much the best Gas Engine I have seen. The electrodes are certainly superior to all others; also your safety rotary slide-valve, which is the personification of simplicity, positiveness and durability; I am satisfied it will develop much more power than we have need for. I also want a 1/2 or 1-H. P. for my wife and daughters to use about the house; we have a rotary clothes washer, can also do the churning, etc. I do not know of any better recommendation than to order a second engine.  
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Respectfully yours,  
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NOTE.—Both of these Engines were shipped to the parties named, and were set up by them solely by the diagram and printed directions we sent them.

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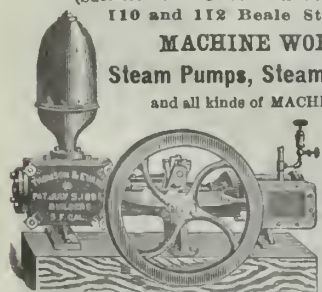
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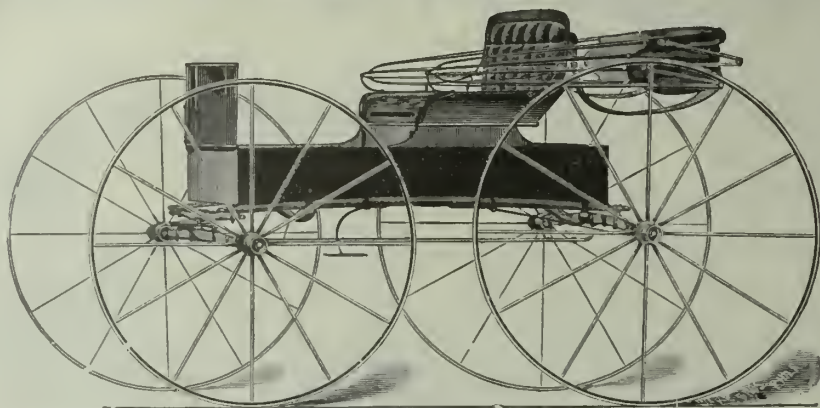


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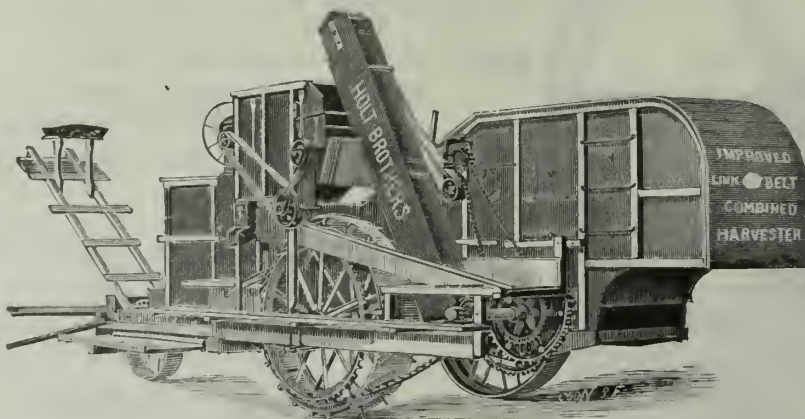
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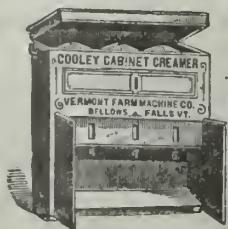
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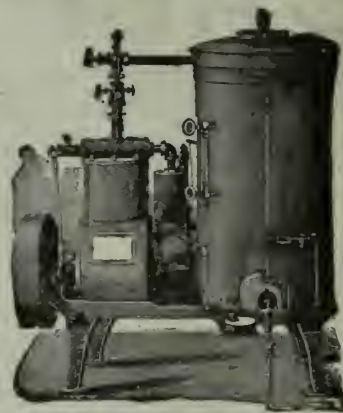
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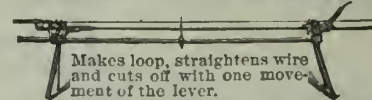
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## List of U. S. Patents for Pacific Coast Inventors.

Reported by Dewey &amp; Co., Pioneer Patent Solicitors for Pacific Coast.

FOR WEEK ENDING MARCH 31, 1891.

- 449,513.—FAUCET—M. Anthony, Berkeley, Cal.  
 449,551.—ELECTRO-THERAPEUTIC SYRINGE—E. Bartsch, S. F.  
 449,346.—KITCHEN CABINET—Brown & Smith, S. F.  
 449,347.—HOOD FOR FIREPLACES—L. E. Clawson, S. F.  
 449,208.—STEAM-ENGINE—E. W. Curtiss, Portland, Or.  
 449,210.—NEWSPAPER COVER—Jos. Davis, S. F.  
 449,579.—SHADE ADJUSTER—H. Du Fresno, Portland, Or.  
 449,316.—CARD SHUFFLER—E. Falkingham, S. F.  
 449,322.—SECTIONAL ROPE SHEAVE—Harris & Thomas, S. F.  
 449,445.—FEED MILL—Henry & Wood, Portland, Or.  
 449,323.—CONSTRUCTION OF BUILDINGS—P. H. Jackson, S. F.  
 449,221.—FARM GATE—L. J. Johnston, Petaluma, Cal.  
 449,480.—ENVELOPE MOISTENER—E. E. Kingsley, Portland, Or.  
 449,161.—HYDRANT—W. Lacy Jr., Los Angeles, Cal.  
 449,292.—ORE CONCENTRATOR—F. B. Morse, Murphys, Cal.  
 449,329.—GANG PLOW—J. & W. Patterson, Stockton, Cal.  
 449,331.—PLOW—G. W. Phinney, Guerneville, Cal.  
 449,338.—SELF-CLOSING GAS-BURNER—W. Ten Eyck, Oakland, Cal.

The following brief list by telegraph, for April 7, will appear more complete on receipt of mail devices:

California—Frank F. Ezgers, San Francisco, electrical dental engine; John W. Gibson, San Francisco, dental engine; Albert Graff, San Francisco, piano; Constant Harth, Willows, device for drawing steam beer; William C. McNeely, Sacramento, riding pad; Alexander Rudolph, San Francisco, window sash; William W. Slater, Oakland, automatic bellringer; William H. Thurman, Fish Camp, connection for wagon trains; Henry Tunker, San Diego, vehicle spring; Charles Vogel, San Francisco, three-rail track for cable railways; Charles Vogel, San Francisco, cable railway crossing; Charles Vogel, San Francisco, curve for cable railways; Henry W. Whitelaw, San Francisco, breech-loading gun; Maud Wyman, Oakland, slate attachment. Oregon—J. B. Otto Boeslaker, Mount Angel, propeller for vessels; William A. Campbell, Portland, saw guide; James Williams, Portland, rowlock for boats. Washington—Legrand D. Harding, Colfax, grinding mill; William B. Morris, Seattle, stump-puller.

NOTE.—Copies of U. S. and Foreign patents furnished by Dewey & Co., in the shortest time possible (by mail for telegraphic order). American and Foreign patents obtained, and general patent business for Pacific Coast inventors transacted with perfect security, at reasonable rates, and in the shortest possible time.

## THE VINEYARD.

## Organization of Grape-Growers.

An important meeting of the grape-growers of Cupertino, Santa Clara county, was held April 23. Col. E. G. Hall acted as chairman and Col. McGlinchey secretary. The report of the Committee on Organization was then read. It was as follows:

First—That this organization be known as the California Grape-Growers' Protective Association of Santa Clara Valley West Side.

Second—None but grape-growers and wine-makers, who are owners of vineyards, are eligible to become members of this organization.

Third—That this association be empowered to appoint an Advisory Board of ten members, whose duty shall be to devise a method for the disposition of the coming vintage.

Fourth—That a membership fee of \$5 be assessed to each member of the association.

Fifth—That two delegates be appointed for the purpose of visiting other wine-growing districts to secure their co-operation with this association.

Captain Merithew wanted to have the hall canvassed to see who would become members. His suggestion was acted on and 30 men signed the roll.

An Advisory Committee of ten was elected, as follows: Captain J. P. Crossley, C. P. Howes, W. C. Miller, A. Malpas, J. O. Cottle, A. H. Wood, N. Hall, T. Kerwin, Colonel E. G. Hall, D. Gartman and Bozo Radovich.

Bozo Radovich and Col. McGlinchey were appointed a committee on organization to organize the State.

Capt. J. P. Crossley was elected President, Capt. A. H. Wood Vice-President, J. B. Kerwin Secretary and Col. E. G. Hall Treasurer.

Mr. Malpas wanted to know what acreage of vines was represented. On a roll-call it was found that over 1400 acres were represented.

J. B. Kerwin was added to the Advisory Board.

On Motion of A. Malpas a District Canvassing Committee of one from each district was ordered.

Jos. Cottle, A. Malpas, Capt. Howes, W. Cochrane, J. D. Williams were then appointed.

J. C. Murphy wanted the committee to be empowered to solicit names and have printed copies of the plan of organization to be signed similar to the one signed by those present.

It was decided to meet again on April 16th.

THE CANNERY COMBINE.—A week ago it was believed that the cannery combine was effected, but it does not yet appear to be settled.

OREGON'S GREATEST FOREST.—It is said there is a tract of forest trees in Southern Oregon embracing about 16,000 square miles, which, cut and sold at \$10 per 1000 feet, would pay our National debt twice over. It is estimated that the amount of merchantable timber standing will reach 400,000,000,000 feet.

## Syracuse Chilled Plows.

The Syracuse Chilled Plow Co. of Syracuse, N. Y., is pushing their business with unusual vigor this season, and as a result report increased sales over any year in the immediate past. The company is continually increasing its plant, and during the past year has added in buildings and machinery over \$50,000. Among the conspicuous changes made is the location of their foundry, in the upper story of their new building. This innovation has proved a great boon, since the extra light makes it possible to do much better and more work during the same hours, increasing the quality of goods and reducing the cost of manufacture. The forging department, a conspicuous department of this company's business, has been doubled in size, and by the addition of several new tools, has more than doubled its capacity. They have within the last month added a new branch to their business, having bought the stock, patterns, patents and good-will of the Rochester Plow Co. This gives them a full line of first-class gang plows, seven different styles, ranging in size from a 5 to a 14 inch cut, and in numbers from two to four plows to the gang. There are three different styles to each size, viz.: Field, Vineyard and Half-vineyard, the titles of each indicating the class of work they are intended to perform. Space forbids our enlarging on the regular lines made by this company. Suffice it they are keeping abreast of the times in turning out hand plows in wood, iron and steel beams, with chilled and steel bodies, single and double shank plows, steel-frame spring-tooth harrows in three styles, and seven different sizes, steel and wood frame cultivators, single and double shovel plows, road-scrapers and a complete line of horse haying tools, including grapple forks, single and reversible carriers, etc. This company issues a complete illustrated catalogue, which they will mail without charge to any person writing for one. They solicit inquiries.

## Destructive Insects and Diseases.

Mr. Wm. Stahl, of Quincy, Ill., has made a special study of how to prevent the ravages of insects and fungus diseases, and will send to any one interested, free of charge, a full and descriptive treatise on this subject.

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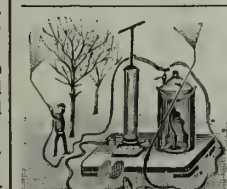
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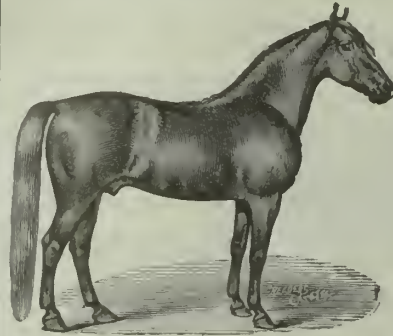
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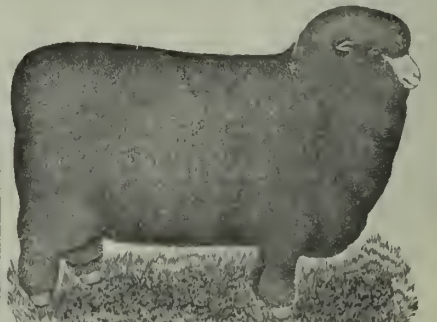
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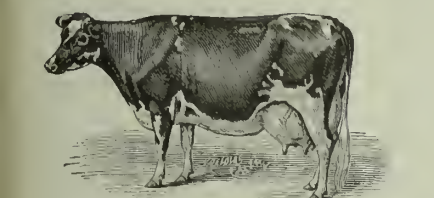
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Comb Honey wholesale and retail; Hives, etc. W.  
**TYAN & SON, The Homestead Apiary, San Mateo, Cal.**



## S. F. MARKET REPORT

## Market Review.

## DOMESTIC PRODUCE, ETC.

SAN FRANCISCO, April 8, 1891.

Rains the past week followed by cool moist weather have done little in dispelling fears about crops. With showers later on and an absence of hot winds, we will have larger crops than ever before known. Money is getting easier causing a better feeling in all lines of trade. Wheat after receding slightly is again on the up grade. The following is to-day's cablegram:

LIVERPOOL, April 8.—Wheat—Firm. California spot lots, 85 7/8d; off coast, 42s 9d; just shipped, 41s 6d; nearly due, 42s; cargoes off coast, firmer; on passage, firm; Mark Lane wheat, firm; French country markets, generally dearer; wheat and flour in Paris, firm; weather in England, very cold.

## Foreign Grain Review.

LONDON, April 6.—The *Mark Lane Express* says: English wheats are in active demand at an average rise of 1s. The finest kinds are quoted from 40s 42s, and farmers are not eager to sell. Foreign wheats are up 1s. Californian firm, 43s. Large consignments of Indian, Californian and Australian wheats will hardly meet the prospective demands. Limited arrival of barley raised values 6d. Oats are abundant. Corn at London, Liverpool and Glasgow is quoted at 6d and at Bristol 1d dearer. At to-day's market English wheats were stronger; foreign averaged 2s dearer. There was good inquiry for Californian and Australian. Corn is badly sorted in the new crop. Flour, 1s per sack dearer on fortnight.

## Liverpool Wheat Market.

The following are the closing prices paid for wheat options per cwt. for the past week:

	April.	May.	June.	July.	Aug.	Sept.
Thursday.....	85 1/2d	86 1/2d	85 1/2d	85 1/2d	85 1/2d	85 1/2d
Friday.....	85 1/2d	86 1/2d	85 1/2d	85 1/2d	85 1/2d	85 1/2d
Saturday.....	85 1/2d	86 1/2d	85 1/2d	85 1/2d	85 1/2d	85 1/2d
Sunday.....	85 1/2d	86 1/2d	85 1/2d	85 1/2d	85 1/2d	85 1/2d
Tuesday.....	85 1/2d	86 1/2d	85 1/2d	85 1/2d	85 1/2d	85 1/2d

The following are the prices for California cargoes for off coast, nearly due and prompt shipments for the past week:

	O. C.	P. S.	N. D.	Market.
Thursday.....	42 1/2d	41 1/2d	41 1/2d	Very strong.
Friday.....	42 1/2d	41 1/2d	41 1/2d	Strongly held.
Saturday.....	42 1/2d	41 1/2d	41 1/2d	Firm, inactive.
Sunday.....	42 1/2d	41 1/2d	41 1/2d	Quiet but firm.
Tuesday.....	42 1/2d	41 1/2d	41 1/2d	Very strong.

## Eastern Grain Markets.

The following shows the closing prices of wheat at New York for the past week, per bushel:

	April.	May.	June.	July.	Aug.	Sept.
Thursday.....	111 1/2	111 1/2	109 1/2	105 1/2	105 1/2	105 1/2
Friday.....	111 1/2	111 1/2	109 1/2	105 1/2	105 1/2	105 1/2
Saturday.....	111 1/2	111 1/2	109 1/2	105 1/2	105 1/2	105 1/2
Sunday.....	111 1/2	111 1/2	109 1/2	105 1/2	105 1/2	105 1/2
Tuesday.....	111 1/2	111 1/2	109 1/2	105 1/2	105 1/2	105 1/2

The closing prices for wheat have been as follows at Chicago for the past week, per bushel:

	April.	May.	June.	July.	Aug.
Thursday.....	105 1/2	105 1/2	103 1/2	103 1/2	103 1/2
Friday.....	105 1/2	105 1/2	103 1/2	103 1/2	103 1/2
Saturday.....	105 1/2	105 1/2	103 1/2	103 1/2	103 1/2
Sunday.....	105 1/2	105 1/2	103 1/2	103 1/2	103 1/2
Tuesday.....	105 1/2	105 1/2	103 1/2	103 1/2	103 1/2

NEW YORK, April 8.—Wheat—\$1.15 for May, \$1.12 1/2 for June, \$1.10 1/2 for July, \$1.06 for August, and \$1.07 for December.

CHICAGO, April 8.—Wheat—\$1.05 for May and \$1.03 1/2 for July.

## Eastern Weekly Crop Report.

WASHINGTON, April 4th.—The weekly crop bulletin says: The season continues late, and, owing to excessive rains, muddy roads and cold weather, little farm work is yet accomplished in the Northern States. Cold and rainy weather retarded growth in the Ohio and in the Upper Mississippi valley, but generally, throughout the winter wheat region, wheat, fruit and pasture continue in good condition. The ground is in excellent condition in the spring wheat region of Minnesota and the Dakotas. Excessive rains also retarded work in Kentucky and Tennessee, where the season is reported from two weeks to a month late. Grass and wheat in these two States are doing well, but snow and the freeze of last night will probably injure fruit, as the trees are reported in bloom. It is also probable that damaging frosts will occur to-night as far south as the northern portion of the Gulf States.

## Wheat Situation Abroad.

LONDON, April 6.—The *Standard* to-day publishes a long review of the agricultural outlook, in the course of which it says the steady rise in wheat revives the hopes of the English farmer and adds that wheat will probably reach the highest price in many years, the principal cause of the rise being the failure of foreign crops. The wheat crops of France and Russia, according to the *Standard*, are much below the average, and it says the deficiency will be at least 20,000,000 qrs. The same paper says: It is believed that the cold winds and frosts have almost destroyed the French crop. Germany, Holland and Belgium all furnish pessimistic reports. In Roumania there is a decreased wheat area and in India there has been a bad wheat season. The only exception is Hungary, where there are better prospects, but it is almost certain that the world's wheat consumption will exceed the production as computed. Whatever the magnitude of America's crop may be, it will not be sufficient to cover the European deficit, thus compelling an extensive draft on the reserves for the third year in succession. The *Standard*, in conclusion, says: Increased home consumption and the decreased wheat area, owing to the spread of population, and a recourse to scientific tillage, in order to repair the waste of the first settlers, thus increasing the cost of production, must inevitably remove the American farmer's formidable competition in the European markets and allow the English farmer to look forward to a prosperous future.

## Eastern Wool Markets.

NEW YORK, April 3.—Bradstreet's will say: The demand for wool has been weak. Manufacturers have bought heavily since the first of the year and are now well supplied. Activity in Australian wools is not so marked. Domestic are reported to be very quiet, and sales are small. The arrivals of foreign wools have been heavy, and it will take lower prices to dispose of inferior grades. Reports received from the coming clip all point to a large supply.

There is sufficient wool in the market to supply manufacturers until it arrives. Values of first-class wools have not changed during the week, though an easier feeling is noted in some grades. Ohio fleeces and pulled wools are dull. Dealers are now offering concessions in Ohio X and XX. Territories and Texas wools are quieter. The stocks of these wools are so light that holders feel no necessity to press sales at present. There is a continued fair inquiry for unwashed and unmerchantable wools. The quotations in carpet wools are being held very firm by dealers. The demand is not strong and the distribution is light.

NEW YORK, April 6: There was a good attendance at the seaboard wool markets. Demand not sharp. The position of goods not stimulating for manufacturers. Nearly everything except delaines favors buyers. Blending of suitable foreign, continues a noticeable feature in important large mill operations. Still our broken stocks of domestic are likely to go out well before the new clip and late prices are backed by the strong opening of London. Boston recently took 1200 bales of Texas from here. Boston—light trading; sales, foreign, 1,510,000 lbs. and 500,000 lbs. domestic, including 65,000 lbs. California, 18@20c. Fine-washed wools steadier at 30@32c. Others hold sample rates last noted. Philadelphia—quiet; worsted grades held firm; Australian growing in favor.

## Dried Fruits.

NEW YORK, April 3.—The *Commercial Bulletin* says, concerning "a California fruitgrower's" statement "that holders of Malaga raisins of lower grades here, being desirous of realizing, have substituted bags for boxes and are offering Malaga as California raisins at 5@5 1/2c." Our Pacific Coast friend might except one point. The goods referred to were not offered as California raisins. They have been sold as sack raisins simply and on their merits. The stock was of the 1889 season packing, London layers, originally, and cost about \$2 per box. At 5 cents a pound in bags buyers considered them of good value. California need not be alarmed if some of the 1890 packages of Malagas are dumped into sacks as a means of facilitating sales, and there is a rare chance that Malaga will send some stock this way in sacks the coming season. In short, the Pacific Coast will have to do something else than talk high prices in the future.

NEW YORK, April 6.—The best bag raisins nominal, 5 1/2c; boxed freely offered at \$1.01-1.70; Three Crown, loose, \$1.50@2 for layers, only perfectly cured lots equal to wet weather were making outside figures.

Evaporated Peaches exceed all the present wants; boxes offered at 13 1/2c.

Prunes—Weak; 9c for sacks; 10c for the four sizes; a few large quoted 11c.

Apricots are freely offered. Boxes 15@16c, bags 13@14c, would be shaded for rounded sales.

Apples are quoted at 12 1/2c as extreme.

NEW YORK, April 6.—The *Commercial Bulletin* says: A good many California raisins have moved from first hands in a quiet way the past week. The practical cleaning up of the sacked stock a little time ago has been followed by the diversion of attention to the boxed stock that has been knocking about at low prices, the outcome of which was numerous sales of fair-sized lots and a decided impression upon the supply controlled by commission firms. Business was chiefly at \$1.20@1.30 per box for loose, and \$1.30@1.50 for layers. While the movement doubtless affords a certain degree of satisfaction, indicating that California raisins have lost nothing in point of popularity, it is obvious that low cost is a conspicuous factor in helping along the movement. For that matter Pacific coast fruit, at current prices, seems to outsell Malagas and Valencias in no uncertain manner, but the foreign stock is getting so cheap there is little chance for improvement in prices for California.

## Miscellaneous.

NEW YORK, April 5.—As about only four weeks remain for the wholesale distribution of dried fruits a heavy feeling prevails. The selling season is far advanced and has proved one of disappointment. Many things of coast interest are being unreservedly pressed on the market, and it looks as if any slaughter will be submitted to, for goods that cannot be economically put into cold storage.

The demand for hops is fair. Sellers are not disposed to invite business by softening last rate and will not part with extra Pacific at 32c; for '90s, 25@31c; common to choice, State and Pacific. Exports the past week 265 bales.

A car of California Naval oranges reported at \$1.65@3 per box. They unpacked poor, owing perhaps to inexperienced putting up. Dealers question if this fruit will successfully compete with Florida's attractive stock. The variety as yet goes chiefly to fancy retailers, and the fact that Coast-grown can reach us when Floridas diminish is not valuable unless size and quality approximate.

Mustard seed is quoted as heretofore for both colors.

Lima beans—Unsettled; \$2.60 for extreme choice.

Honey—Slow; 6 1/2c@7c for amber.

CHICAGO, April 3.—A special dispatch from Kansas City, says that a colossal cattle deal has just been completed by wealthy stockmen of the West and Chicago packers. It involves an outlay of \$2,500,000, and 80,000 head of cattle have been purchased in Texas to be shipped to the Chicago market. Half of these were purchased for W. P. Herring of this city, P. D. Armour of Chicago and E. M. Howins, President of the Cherokee Strip Live Stock Association. An equal number was purchased for Nelson Morris of Chicago, by Colonel Suggs, a well-known stockman.

## The Eastern Peach Crop.

Reports from all parts of Maryland indicate a fine fruit crop the present year. The buds are now in fine condition, and have not yet been injured to any extent, and if it should now become warm, it would probably be ten days or two weeks before they would bloom. Experienced growers say we have never yet missed a crop when they were alive at this date. Reports from all other growing sections are favorable for a fine crop the present season.

The farmers and fruit-growers of Hunterdon and Warren counties, New Jersey, are very jubilant over the signs of a big peach crop. The cold weather of last month was very beneficial in retarding the development of the buds, and the flowing of the sap, and the most trustworthy source of information places the crop at a large one. The buds are now in a condition that insures their safety against any

cold snap that may occur.—Denton, Md. *Journal*. Telegrams received since, report heavy damages in several States by heavy frosts.

## Local Markets.

	Buyer Season.		Seller 1891.		Buyer 1891.	
	H.	L.	H.	L.	H.	L.
Thursday.....	136 1/2	135 1/2	104 1/2	104	136	136
Friday.....	137 1/2	136 1/2	105	104 1/2	137 1/2	137 1/2
Saturday.....	137 1/2	136 1/2	105 1/2	104 1/2	137 1/2	137 1/2
Sunday.....	137 1/2	136 1/2	105 1/2	104 1/2	137 1/2	137 1/2
Tuesday.....	136 1/2	135 1/2	105 1/2	104 1/2	136 1/2	136 1/2

\*After August.

	Buyer Season.		Seller 1891.		Buyer 1891.	
	H.	L.	H.	L.	H.	L.
Thursday.....	156 1/2	155 1/2	156 1/2	156 1/2	156 1/2	156 1/2
Friday.....	156 1/2	155 1/2	156 1/2	156 1/2	156 1/2	156 1/2
Saturday.....	156 1/2	155 1/2	156 1/2	156 1/2	156 1/2	156 1/2
Sunday.....	156 1/2	155 1/2	156 1/2	156 1/2	156 1/2	156 1/2
Tuesday.....	156 1/2	155 1/2	156 1/2	156 1/2	156 1/2	156 1/2

BAGS—The market is steady for standard size hand sewed at 7 1/2c to 7 3/4c for May-June delivery.

BARLEY—The sample market after receding slightly is advancing again. In futures, trading on Call has been fair, with the bulk of sales cross orders. The following are to-day's reported sales on Call:

Morning Session: Buyer 1891, after August 1st—100 tons, \$1.11. Seller 1891—100 tons, \$1.05 1/2 c. Afternoon Session: Buyer season—200 tons, \$1.36 1/2; 100, \$1.36 1/2; 100, \$1.36 1/2 c.

BUTTER—Receipts continue in excess of the demand. Up north the distributive demand is being largely supplied by local dairies. It now looks as if packing will soon be in order in this state.

CHEESE—Under free receipts and only a moderate demand, the market has shaded off slightly closing weak.

EGGS.—The market has held fairly steady prices. Only selected eggs move off quickly. By selected is meant fresh laid (eggs not smooth or oily) and large sized.

FLOUR—The market is very strong at a still higher range of values. With wheat on the up grade, it is not at all unlikely but a still higher range will soon be established.

WHEAT—The market after shading off from Thursday to Monday developed considerable strength on Tuesday, which was followed by another advance to-day (Wednesday.) On Call, trading (legitimate and cross orders) has been good. The following are to-day's reported sales on Call:

Morning Session: Buyer 1891—400 tons, \$1.58 1/2; 100, \$1.58 1/2; 600, \$1.58 1/2; 200, \$1.58 1/2; 500, \$1.58 1/2; 500, \$1.59; 100, \$1.59 1/2; 500, \$1.59 1/2; 100, \$1.59 1/2. Buyer season—200 tons, \$1.57 1/2; 300, \$1.58; 100, \$1.58 1/2; 500, \$1.58 1/2; 100, \$1.59. Seller 1891—100 tons, \$1.49 1/2; 100, \$1.50; 200, \$1.50 1/2; 100, \$1.50. Buyer 1891, after August 1st—1200 tons, \$1.56; 500, \$1.56 1/2; 100, \$1.56 1/2; 100, \$1.56 1/2; 200, \$1.56 1/2; 300, \$1.56 1/2 c. Afternoon Session: Buyer 1891—200 tons, \$1.59 1/2; 900, \$1.60; 400, \$1.60 1/2; 1600, \$1.60 1/2; 400, \$1.60 1/2; 1200, \$1.60 1/2. Buyer season—400 tons, \$1.59 1/2; 1891, after August 1st—100 tons, \$1.57 1/2; 800, \$1.57 1/2; 100, \$1.57 1/2; 300, \$1.57 1/2. Seller 1891—300 tons, \$1.51 1/2; 1100, \$1.52; 100, \$1.51 1/2; 300, \$1.51 1/2; 100, \$1.51 1/2 c.

## Market Information.

## Produce Receipts.

Receipts of produce at this port for the week ending April 7th, were as follows:

Flour, qr. sks.....	77,696	Middlings, sks....	2,140
Wheat, ctls.....	593,202	Alfalfa, ".....	50
Barley, ".....	17,293	Chicory, bbls....	100
Rye, ".....	315	Broomcorn bbls....	100
Oats, ".....	2,850	Hops, bbls.....	100
Corn, ".....	4,154	Wool, ".....	3,012
*Butter ".....	1,218	Hay, tons.....	2,469
do bxs.....	450	Straw, ".....	106
do bbls.....	.....	Wine, gals.....	303,790
do kegs.....	.....	Brandy, ".....	10,590
do tubs.....	.....	Raisins, bxs.....	.....
do 1/2 bxs.....	325	Honey, cs.....	99
†Cheese, ctls.....	700	Walnuts, sks.....	.....
do bxs.....	64	Flaxseed, ".....	.....
Eggs, doz.....	78,750	Mustard, ".....	.....
do " Eastern.....	.....	Almonds, ".....	163
Beans, ctls.....	4,932	Peanuts, ".....	50
Potatoes, sks.....	25,365	Peapcorn, ".....	80
Onions, ".....	766	Beet sugar, bbls....	.....
Bran, ".....	7,773	do do sks.....	.....
Buckwheat ".....	.....	.....	.....
*Overland ".....	.....	†Overland 220 cts.	.....

## Cereals.

Mark Lane Express.—March 16: Should April prove a genial spring month, with prevalent south-westerly breezes and a fair fall of soft rains, we expect the country soon to put on a highly favourable aspect, showing healthy and well rooted crops. On the Continent things are now conceded to be far less favourable. France, Spain, Belgium, Holland, and Germany, growing a total of 72,000,000 qrs. of wheat in a good average year, are now regarded as unlikely to have within 20 per cent. of a full yield, the reduction being largely inevitable as the result of abandoned wheat cultivation in fields where the lightly-rooted grain had perished during the winter. The finding of an extra 14,000,000 qrs. of wheat next cereal year will throw a heavy task on the harvests of Austria-Hungary, Russia, India, and the United States, even should all these four great producing countries have good crops. At present the promise is good in the first two, and not unsatisfactory in America; but the Indian crop is the only one which is in hand, and the surplus here, as compared with last season, although undoubtedly, is not commonly taken at more than four and a half million qrs. against three and a half. Five millions will be an outside figure.

London *Agricultural Gazette*.—March 16: The wheat crop in France was reported to have received material and extensive damage at the break-up of the frost, and France, according to her wont, immediately set to work to buy equal to what she considered her deficiency would be. This set the ball rolling, and our merchants, who had been working band to mouth in the face of barely moderate stocks at waterside, began to operate more freely than they have done for years past. Consequently the "floating supply," which will be seen to be nearly as large as it was last year at this time,

will rapidly increase, and after, say, two months, the large purchases recently made will begin to drop in; all exporting countries are selling freely at the higher level of values excepting the United States (from Atlantic ports), and even Uncle Sam thinks it is time to part with a little more flour. There can scarcely be any glut in the market just yet, but if crop reports in France should become decidedly more favourable, and the acreage shown to be reduced to a less important extent than was feared, it is possible that the present level of values here might not be maintained. The only certainty in connection with the subject is that there is comparatively little foreign wheat in hand here; and the seeming probability is that for some six or eight weeks the increasing quantity can only be within moderate limits. After that the whole thing is a matter of speculation.

The estimated yields of wheat in the colonies of Victoria and South Australia are estimated to produce jointly 3,791,906 qrs., against 3,259,135 in 1889-90, 1,854,339 qrs. in 1888-9, and 4,042,658 qrs. in 1887-8. In New Zealand the new wheat crop is said to be of good quality, but no definite quantity has yet been indicated.

Mild weather has been reported from South Russian as well as from Southern Baltic ports. Odessa and Danubian ports are expected to be open for the season; at the former port there are 53 steamers waiting for cargoes, with others daily arriving at all the more important ports.

The local wheat market closed strong on last Wednesday, which was followed by higher prices on Thursday under free purchases of futures by a large milling and exporting firm. These purchases were bona fide and made against cargo sales in England for shipments in April and May. If the Call Board is to be run as a kind of grain gambling institution it would seem that the directors would introduce selling and buying by months, the same as is done in New York, and then exporters can and doubtless would operate more freely, for they could sell cargoes ahead for shipment in certain months, well knowing that they would have the wheat coming in. Since Thursday the market shaded off, but so far as foreign crop advices tend to show, with no good reason. European markets shaded off slightly, and that, too, in the face of a reported shortage in the world's supply. The supply of tonnage in port is large for the season, while the tonnage on the way is over 50 per cent more than at this time in 1890. The large wheat crop in Australasia will no doubt keep vessels there well into May, but after that month they will be offering for this port. The crop on this coast promises to be very large, fully 50 per cent more than it was in 1890. It will undoubtedly tax shippers to the utmost to provide tonnage. In this State in many parts of the San Joaquin valley and as far down as Tulare it is said that previous to this week's rains, the plant in many localities was turning yellow, but in the Sacramento valley as far north as Tehama the plant was looking exceedingly healthy. In San Diego and San Bernardino counties the plant is said to be looking well. The increased acreage over last year is about 1,200,000 acres, so that with an average three quarter yield to the acre the total output will be quite large. The rains this week improved the crop prospects in the San Joaquin, but more rains in this month are wanted to insure a large output to the acre.

The local barley market has held strong, although on call the ring tried by cross orders to break prices. The supply in this State and up north is barely enough to meet the requirements to harvest. The consumption is steadily enlarging and consequently there are those in the trade who are firmly convinced that even with good crops in this State and up north, the market will hold up throughout the season. In giving this opinion they concede that the ring on Call will at times through cross orders temporarily break prices to buy in parcels that will be pressed on the market by impecunious holders. Persons in legitimate trade are outspoken against the Call Board system of dealing in futures, and regret that the Legislature did not pass the bill against gambling or dealing in futures as now carried on on Call.

Corn has been moved under a good demand for both home and shipping. The supply in the State is light, while high prices in the Central States are against shipments to this city.

Oats have not changed. The tone appears to be stronger which is due to light receipts allowing holders here to reduce their stocks. Up north the supply is said to be light.

Rye is essentially unchanged.

## Crops in Washington.

Seattle *Press-Times*, April 3, says: It is estimated by competent authority that last year's splendid grain yield of Eastern Washington will be discounted in 1891. The snows have been bountiful and timely. Gradually melting, the water was absorbed in the ground and there remains, to be drawn up through root and stalk to nourish the immense fields of the inland empire. The broad fruitful valleys of Yakima, Walla Walla, Palouse and the wide sweep of the Big Bend country, which last year charged the elevators and defied the motive powers of the railroads, will this year pour 40 per cent more grain into elevators, depot and box car. In many sections double acreage is reported, and in nearly all others the increase has been from 25 to 30 per cent. Twenty millions of bushels of wheat will demand export from the greatest grain-growing region of the world in 1891. While the people east of the mountains have been turning up the rich black earth and scattering grain, the western part of the State has not been idle. The construction of railroads has brought into market many thousand acres of land.

## Feedstuff.

Ground feed has ruled stronger with a slight advance obtainable for all descriptions. The impression prevails that rolled and ground barley will see still higher prices. The demand for all kinds is fair, while the supply is decreasing.

Hay continues to come in freely. Nevada is a large contributor. The grade of Nevada hay is said to be good. Harvesting will commence soon in the more favored localities in this State. The crop will be large and of a good average quality. The consumption in this State is quite large and steadily increasing.

## Vegetables.

Prices for seasonable garden truck have fluctuated, Peas and beans advanced, but toward the close are falling under increasing receipts. Rhubarb is lower. Asparagus is within the range of canners' views, who clear up the market at from 50 to 75 cts. a box,



Cucumbers and tomatoes are lower. Marrowfat squash is higher. Cabbages are weaker. The crop of garden truck is large and lower prices will rule.

Onions continue scarce and high. The new crop is making rapid growth, and consequently new, will be in the market before long.

Heavy receipts of potatoes from Oregon and Humboldt with free receipts expected to continue throughout this month, caused the market to shade off. Our quotations are more or less nominal. New potatoes are coming in more freely. Some of the consignments are of good size and tolerably well matured. The crop this year is very heavy. Shipments to the East are reported quite large.

**Fruits.**

Strawberries make a little better show. Sales are reported at 25c to 50c a basket. The crop will be large.

Cherries are expected in the market next week. Choice good-keeping apples are in light supply. The demand is only fair.

Limes are weak and lower, but lemons are steady. Navel oranges are doing better, with 150's to 170's fetching still higher prices. Seedlings show more strength. Culls of all kinds are, as usual, hard to place. The shipments overland are very heavy. At the present rate the crop will be marketed sooner than heretofore claimed.

According to catalogue of sales at New York on March 26th, by E. L. Goodsell the following prices were realized for California oranges: 224 boxes seedlings, \$1.55@2.40 a box; 4 boxes fetched \$2.40 and none of the remainder sold at over \$1.80 a box; 40 boxes Navel sold at \$2.15@2.55 a box; 10 boxes St. Michaels' paper rind at \$2.50@2.90 a box. By referring to sales reported by H. Harris & Co., Boston, published last week, it will be seen that the above prices are lower.

Dried fruits and also raisins are reported unchanged. Stocks are gradually cleaning up.

**Live-stock.**

Both bullocks and mutton sheep are a shade lower, with an easier closing reported. Offerings are said to be freer, while slaughterers do not appear disposed to buy heavily unless offered concessions. Block hogs are strong. Milch cows and medium work horses are being called for. General utility horses are wanted, as are matched teams.

The market for dressed cattle is quoted as follows [to obtain the price on foot, take off from the price for stall-fed one-third to one-half, according to the nature of the feed and time fed; and for grass-fed take off the price from 40 to 60 per cent].

**HOGS**—On foot, light grain fed, 5½@5¾¢ lb. dressed, —@—¢ lb.; heavy, 5@5½¢ lb.; dressed, —@—¢ lb. Stock hogs, 4@4½¢ lb. **BEEF**—Stall fed, 7@—¢ lb.; grass fed, extra, 6@—¢ lb.; first quality, 5½@—¢ lb.; second quality 5@—¢ lb.; third quality, 4@—¢ lb. lb.; bulls and thin cows, 2@3¢ lb. **VEAL**—Small, 6@8¢ lb.; large, 5@6½¢. **MUTTON**—Wethers, 8½@9¢ lb.; ewes, 7½@8½¢ lb.; spring lamb, 10@12½¢ lb.

**Miscellaneous**

From reliable advices up to April 8th the following summary of tonnage movement is compiled:

On the way to	1891.	1890.
San Francisco.....	253,244	164,631
San Diego.....	10,454	14,983
San Pedro.....	8,707	3,719
Oregon.....	31,449	28,281
Puget Sound.....	29,522	19,947
Totals.....	339,378	231,553

In port at

San Francisco, disengaged.....	10,502	21,812
" engaged for wheat.....	61,216	52,855
San Diego.....	2,194	
San Pedro.....	3,951	
Columbia River.....	12,635	
Puget Sound.....		
Totals.....	90,508	92,367

To get the carrying capacity, add 65 per cent to the registered tons as given above.

From July 1, 1890, to April 3, 1891, the following are the exports from this port:

Wheat, cts.....	10,295,780	828,035
Flour, bbls.....	896,811	846,619
Barley.....	3,310	13,632

Poultry has held to strong prices throughout the week, with an advance for large-sized, well-conditioned young fowls. Scrub stock, as usual, is hard to sell.

Beans are cleaning up. Receipts are moderate. Honey is without essential change. Receipts and demand are light.

There are very few choice hops on the coast, and to buy them full prices will have to be paid. The supply of other grades is light. Crop prospects are good.

Wool is coming in freely, and buyers are taking hold. We revise our list of quotations. Cold and stormy weather in Europe caused heavy loss of sheep in parts of England and on the continent. This will probably have an effect on wool abroad. The London market is reported strong and slightly higher.

Exports by sea the past week aggregate as follows: Wheat, cts, Dunkirk, 141,257; Falmouth, 45,103; Antwerp, 69,606; Havre, 64,891. Flour, bbls, Central America, 6577; Mexico, 765; Honolulu, 100; China, 12,367; Japan, 4206. Barley, cts, rolled, Honolulu, 196. Wine, gals, New York, 44,478; Bremen, 1180; Central America, 2078. Beans, lbs, Central America, 21,279; Panama, 2014; Honolulu, 12,000; Sydney, 11,052; China, 15,608. Corn, cts, Central America, 2903. Raisins, bxs, Central America, 151; Mexico, 150; Brisbane, 100; Japan, 40. Bran, sks, Honolulu, 1200.

**Rope.**

Baling, Duplex, lb.....	9
" Manila, lb.....	12 1/2
Twine, for hops, hals, farced, lb, Manila.....	13
" " grape vine, hals, lb.....	13 1/2
" " coils, lb.....	13 1/2
" spring, lb.....	15
" hinder (650 ft. to lb), lb.....	13
Duplex twine 3c per lb less.....	

PACIFIC COAST WEATHER FOR THE WEEK.											
(Furnished for publication in this paper by officer in charge of branch Signal office, Division of the Pacific.											
DATE.	Olympia.	Portland.	Eureka.	Red Bluff.	Sacramento.	S. Francisco.	Fresno.	Keeler.	Los Angeles.	San Diego.	
April 7.	Rain.	Rain.	Rain.	Rain.	Rain.	Rain.	Rain.	Rain.	Rain.	Rain.	Weather.
W.	.04	46 SW	Cy.	.14	48 SW	Cy.	.16	50 NW	Rn.	.00	68 S P C
T.	.00	52 N	Cl.	.00	54 N	Cl.	.00	50 NW	P C	.00	72 N P C
F.	.00	64 NW	Cl.	.00	62 NE	Cl.	.01	52 SW	Cl.	.00	78 SE
S.	.06	56 SW	Cy.	.10	62 SW	Cy.	.36	56 SW	Cy.	.00	72 SE
S.	.10	56 S	Rn.	.00	58 S	Cy.	.00	56 SW	Cy.	.00	64 SE
M.	.72	46 W	Rn.	.56	48 S	Rn.	.10	50 SE	Cy.	.44	46 SE
T.	.00	52 W	P C.	.36	44 S	Rn.	.10	52 W	P C.	.06	56 NW
	.92		1.16		.73					.50	

EXPLANATION. Cl. for clear; Cy., cloudy; Ft., fair; Cm., calm; — indicates too small to measure. Temperature wind and weather at 5 P. M. (Pacific Standard time) with amount of rainfall in the preceding 24 hours. T indicates trace of rainfall. P C, partly cloudy. Rn., rain.

**Domestic Produce.**

Extra choice in good packages fetch an advance on top quotations, while very poor grades sell less than the lower quotations.

**BEANS AND PEAS.**

Bayo, cts.....	3 40 @ 3 70	do Oh'ce.....	10 @ —
Butter.....	2 85 @ 3 15	do paper shell.....	11 @ 12 1/2
Peas.....	2 35 @ 3 20	do Chilli.....	9 @ 10
Red.....	2 50 @ 3 30	Almonds, bd shl.....	7 @ 9
Pink.....	2 20 @ 2 40	Softshell.....	14 @ —
Small White.....	2 80 @ 3 00	Paper shell.....	15 @ —
Lima.....	3 15 @ 3 35	Brazil.....	12 1/2 @ 15
Field Peas, bk eye.....	1 65 @ 2 00	Pecans small.....	12 @ 14
do green.....	1 50 @ 1 75	do large.....	15 @ 18
do Eastern do.....	2 50 @ 3 00	Peanuts.....	5 @ 5 1/2
do Niles.....	1 75 @ 1 80	Filberts.....	11 @ 12 1/2
Split.....	4 1/2 @ 5 1/2	Hickory.....	7 @ 8
		Chestnuts.....	12 @ 15
		Pine.....	10 @ 12 1/2

**WEDNESDAY, April 8, 1891.**

**ONIONS.**

Choloto Extra 70 @ 90	Silver Skin.....	3 50 @ 4 75
Fair to Good.....	52 50 @ 65 00	
Poor.....	42 50 @ 47 50	

**POTATOES.**

California.....	5 1/2 @ 6	New, lb.....	1 @ 2
German.....	6 @ 6 1/2	Early Rose, sks.....	65 @ 75
		Tomatoes Burhmk.....	75 @ 80
		River Red.....	65 @ 75
		Burhanka, river.....	70 @ 90
		do Salinas.....	80 @ 1 10
		do Petaluma.....	80 @ 90
		do Humboldt.....	75 @ 1 15
		do Oregon.....	80 @ 1 15
		Jersey Blues.....	70 @ 80

**POULTRY AND GAME.**

do fair to good.....	8 1/2 @ —	Hens, doz.....	6 00 @ 8 00
do gilt edged.....	11 @ —	Roosters, old.....	6 00 @ 8 00
Young America.....	11 @ —	do young.....	9 00 @ 12 00
N. York Cream.....	12 1/2 @ —	Broilers, small.....	6 00 @ —
Western.....	11 @ —	do large.....	7 50 @ —
		Fryers.....	8 50 @ —
		Ducks, medium.....	7 50 @ 8 50
		do large.....	9 50 @ 11 00
		Geese, pair.....	1 75 @ 2 25
		Turkeys, Goblr.....	17 @ 19
		Turkeys, Hens.....	19 @ 21
		do dressed.....	21 @ 22
		Pigeons.....	1 75 @ 2 50
		Rabbits, doz.....	1 25 @ 1 50
		Hare.....	1 00 @ 1 50

**EGG POOL.**

Manhattan Food.....	100 lbs 7 50		
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**PROVISIONS.**

Cal. Bacon, h'vy, lb.....	9 @ —	Medium.....	9 1/2 @ —
Light.....	13 @ —	Lard.....	9 @ 10
Cal. Sm'd Beef.....	11 @ —	Hams, Cal.....	11 @ —
do Eastern.....	12 1/2 @ —		

**SEEDS.**

Alfalfa.....	7 @ 7 1/2	Canary.....	2 1/2 @ 3
Oat.....	2 1/2 @ 3	Olover, Red.....	9 1/2 @ —
White.....	17 1/2 @ —		
Ootom.....	20 @ —		
Flaxseed.....	2 50 @ 2 80		
Hemp.....	31 @ —		
Italian Ryegrass.....	10 @ 11		
Perennial.....	7 @ 9		
Millet, German.....	5 @ —		
do Common.....	5 @ —		
Mustard, yellow.....	2 20 @ 2 50		
do Brown.....	2 1/2 @ 3		
Rape.....	2 1/2 @ 2 1/2		
Ky. Blue Grass.....	25 @ 27		
Sweet V. Grass.....	75 @ —		
Orchard.....	14 @ 16		
Hungarian.....	7 1/2 @ 8		
Lawn.....	27 1/2 @ 40		
Mesquit.....	7 @ 8		
Timothy.....	5 1/2 @ —		

**TALLOW.**

Rendered, lb.....	3 @ 3 1/2		
Refined.....	42 @ 51		

**WOOL—SPRING, 1890.**

Humb't & Men'cino.....	20 @ 26		
Sac'to valley.....	16 @ 24		
Free Mountain.....	19 @ 26		
S. Joaquin valley.....	13 @ 18		
do Mountain.....	18 @ 24		
Oak & P'tb.....	16 @ 24		
Oregon Eastern.....	14 @ 24		
do valley.....	21 @ 27		
So'n Coast, def.....	11 @ 15		
So'n Coast, free.....	13 @ 21		

**HONEY.**

White Comb, lb.....	10 @ 13		
do lb frame.....	13 @ 17		
White extract.....	6 @ 6 1/2		
Ambr do.....	5 @ 6		

**NUTS—JOBBER.**

Walnuts, Cal. lb.....	8 @ 9		
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**Fruits and Vegetables.**

Choice selected, in good packages, fetch an advance on top quotations, while very poor grades sell less than the lower quotations.

**WEDNESDAY, April 8, 1891.**

**BANANAS.**

Bananas, bunch.....	1 50 @ 3 00	Parasips, cts.....	1 25 @ —
Limes, Mex.....	7 00 @ 8 00	Peppers, dry, lb.....	12 @ 20
do California.....	— @ —	do green.....	15 @ 20
do do sm'l hxs.....	— @ —	Turnips, cts.....	75 @ —
Lemons, box.....	2 50 @ 3 50	Beets, sk.....	— @ 1 00
do Riverside.....	2 50 @ 3 50	Cabbage, 100 lbs.....	50 @ 55
do Los Angeles.....	1 50 @ 2 00	Carrots, sk.....	40 @ 45
do Sicily, bx.....	5 00 @ 6 00	Marrowfat, ton.....	30 @ —

**SEEDLING ORANGES.**

do Riverside.....	1 75 @ 2 25	do California.....	10 @ 15
do Los Angeles.....	1 25 @ 1 75	Asparagus, bx.....	50 @ 1 00
Navel Oranges.....	— @ —	do ex. choice.....	1 25 @ —
do Riverside.....	5 00 @ 5 75	Mushrooms.....	15 @ 25
do Los Angeles.....	3 25 @ 3 75	do Common, lb.....	25 @ 40
do do scaly.....	2 00 @ 2 75	Choice.....	40 @ 50
do Duarte.....	3 50 @ 4 00	Celery, per doz.....	40 @ 50
Pineapples, doz.....	4 00 @ 5 00	Tomatoflower, doz.....	35 @ 50
Apples, com box.....	1 00 @ —	Tomatoes, box.....	60 @ 1 50
do good.....	1 50 @ —	do sm'l squash.....	— @ —
do choice.....	2 00 @ —	Cucumbers, doz.....	50 @ 1 00
do Fancy.....	2 50 @ —	Rhubarb, bx.....	75 @ 1 50
do Mountain, hbl.....	6 00 @ 11 00	Pears green, doz.....	3 @ 5

**VEGETABLES.**

Onion, dry, lb.....	20 @ 30	String Beans, lb.....	8 @ —
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\*In quoting oranges, regular sizes are given, viz., from 112 to 176 for Navela, and 126 to 226 for seedlings; odd sizes 50 cents to \$1 per box less.

KILLIP & CO.

— WILL SELL AT —

PUBLIC AUCTION

— FOR ACCOUNT —

HENRY PIERCE, ESQ.,

— AT 1 P. M. AT —

OAKLAND TROTTER PARK

On SATURDAY, MAY 2, 1891.

— ABOUT —

Forty Head Trotting and Road Horses,

Including Young Stallions by DIRECTOR, ANTEVOLO, GUY WILKES, STEINWAY, MAMBRINO WILKES, WOODNUT, ABBOTSFORD, ALONZO HAYWARD and GRAND MOOR.

ALSO, Mares in foal or with colts by their side, by BAY ROSE, and Fillies by the above-named Stallions.

Catalogues giving full description and pedigrees are being prepared.

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WHAT DO YOU SELL?

We sell nearly or quite every article used in the family to eat, to wear, or to adorn or furnish the house. We sell 31-inch prints, fast colors, in stly dark shades, at 13 yards for \$1 or 7c by the piece. We sell satteens in all colors of the 15 and 20c grades at 12½¢, and remnants, 2 to 13 ya's, at 10 cents, mostly large figures, but beautiful styles. Only 300 pieces to offer. We sell one line of quilling calico good value at 5 cents, would do for school dresses, and others at 6, 7 and 8 cents for extra wear. We sell black and white plaids in wool goods at 25 cents for misses' or children's Sunday dresses. We sell some beautiful lawns and challies at 10 cents, black lawns with a bar or plaids, if wanted, that are handsome. We sell the best white quilt or bed-spread for \$1 ever offered for the money, full size, try one. We sell lace curtains, 3 yards long, white or ecru, a \$1 pair, tariff or no tariff. We sell a good strong plaid for shirting or working aprons in 20 styles at 12 yards for \$1 or even 8 cents by the piece. Nothing equal to it for wear at the price. We sell sheeting, flannels, shirting, collonades, jeans, cassimeres, and stacks and lots of other goods we get right from the mills at small advance on cost. We sell blankets from \$1.25 pair up and comforts from 85 cents each up to \$4.50 for those handsome satteen ones filled with best white wool or cotton. Let us send you one of the \$2.75 grade. We sell wall paper from the lowest to the highest price, and the designs are beautiful this year. It never was any cheaper, 5c or, as we call it, 10c double roll, and from that up. We sell boys' 2-piece suits from \$1.50 up and 3-piece suits \$3.50 up. One lot of boys' coats, 11 to 16 years, at \$2 and another at \$2.50 each that are worth almost double.

Send for our 40-page price list. Samples free. Address

SMITH'S CASH STORE,

416 & 418 FRONT STREET. - - - - - SAN FRANCISCO, CAL.

SOMETHING NEW: P. & B. Patent Odorless and Water-Proof Building Papers.

Unexcelled for use under shingles, tin or corrugated iron. For sheathing and lining purposes and between floors, they render a house water-proof and dust-proof at a slight cost.

SPECIAL: P. & B. Fruit Papers (Patented).

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Having sold my Depot, corner 14th and Washington Streets, I offer for sale at greatly Reduced Prices my Entire Stock of

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**ABSORPTION OF ORGANIC MATTER BY PLANTS.**  
In a communication by Prof. Calderon of the Institute of Las Palmas, Canary Isles, he contests the ordinary view that the nitrogen of the tissues of plants is derived entirely from the nitrates and ammoniacal salts absorbed through the roots. He does not, however, adopt the old theory that the source is the free nitrogen of the atmosphere, but rather the nitrogenous organic matter which is always floating in the air. The nutrition of plants he divides into three classes: *Necrophagous*, the absorption of dead organic matter in various stages of decomposition; *plasmophagous*, the assimilation of living organic matter without elimination, or distinction of any kind between useful and useless substances, such as the nutrition of parasites; and *biophagous*, the absorption of living organisms, such as that known in the case of insectivorous plants. A further illustration of the latter kind of nutrition is, according to Prof. Calderon, furnished by all plants furnished with viscid hairs or a glutinous excretion, the object of which is the detention and destruction of small insects. To prove the importance of the nitrogenous substances floating in the air to the life of plants, he deprived air of all organic matter in the mode described by Prof. Tyndall, and subjected lichens to the access only of this filtered air and distilled water, when he found all their physiological functions to be suddenly suspended.—*Nature*.

**IS REDWOOD INFLAMMABLE?**—Quoth the San Jose Herald: "In protesting against the rate of fire insurance in San Jose, the point that our buildings are almost exclusively built of redwood should not be lost sight of. In cities where pine is used for buildings, the rate of insurance should be far higher than in San Jose for that reason. Redwood is very nearly non-combustible, while pine will burn on the slightest provocation. It is not likely that the committee appointed to present the case to the managers of the insurance compact will forget this point, but it is well to keep it before the public generally, since if we have a local insurance company, we want to make the losses as light as possible, and this can best be done by building exclusively of redwood. The difference between pine and redwood in the matter of combustion has been demonstrated time and again. It is almost impossible to burn a redwood building. If it catches fire, it smoulders and chars and is quickly and easily extinguished, while a pine building, once fairly on fire, is doomed to absolute destruction." The story about the unconsumable redwood is a very old chestnut and would be good if only it were true.

**Complimentary Samples.**

Persons receiving this paper marked are requested to examine its contents, terms of subscription, and give it their own patronage, and as far as practicable aid in circulating the journal, and making its value more widely known to others, and extending its influence in the cause it faithfully serves. Subscription, paid in advance, 5 mos. \$1; 10 mos. \$2; 15 mos., \$3. Extra copies mailed for 10 cents, if ordered soon enough. If already a subscriber, please show the paper to others.

**SHOOTING LOGS.**—The feat of shooting logs over the Snoqualmie falls, 60 miles east of Seattle, has long been talked of among the loggers. It is well known that above that cataract stand many millions of feet of fine timber, some of the best known in the State. This is inaccessible except by the means proposed, and hence the project thought of. The falls are over 400 feet high and at certain times of the year the flow is quite reduced. During freshets, however, there is an immense volume of water there, and then would be the safest time to float the logs down over. Several loggers, the most enthusiastic, claim they have tried the experiment and found it to work well.

What a debt of gratitude the world owes to such men as Drs. Ayer & Jenner—the latter for the great discovery of vaccination, and the former for his extract of Sarsaparilla—the best of blood purifiers! Who can estimate how much these discoveries have benefited the race!

**NEWSPAPER AGENTS WANTED.**

Extra inducements will be offered for a few active canvassers who will give their whole attention (for a while at least) to soliciting subscriptions and advertisements for this journal and other first-class popular newspapers. Apply soon, or address this office, giving address, age, experience and reference. Special inducements to old agents.

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Use "Dead Lock" Gopher Traps. They are the best. See advertisement in this paper.

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Is an effective remedy, as numerous testimonials conclusively prove. "For two years I was a constant sufferer from dyspepsia and liver complaint. I doctored a long time and the medicines prescribed, in nearly every case, only aggravated the disease. An apothecary advised me to use Ayer's Sarsaparilla. I did so, and was cured at a cost of \$5. Since that time it has been my family medicine, and sickness has become a stranger to our household. I believe it to be the best medicine on earth." —P. F. McNulty, Hackman, 29 Summer st., Lowell, Mass.

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Ayer's Sarsaparilla**

Is a certain cure, when the complaint originates in impoverished blood. "I was a great sufferer from a low condition of the blood and general debility, becoming finally, so reduced that I was unfit for work. Nothing that I did for the complaint helped me so much as Ayer's Sarsaparilla, a few bottles of which restored me to health and strength. I take every opportunity to recommend this medicine in similar cases." —C. Evick, 14 E. Main st., Chillicothe, Ohio.

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And all disorders originating in impurity of the blood, such as boils, carbuncles, pimples, blotches, salt-rheum, scald-head, scrofulous sores, and the like, take only

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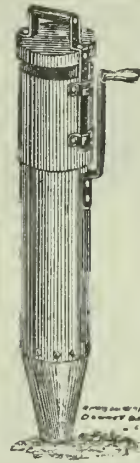
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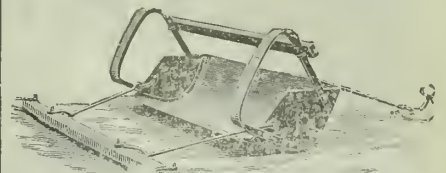
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The attention of the public is called to this Scraper and the many varieties of work of which it is capable, such as Railroad Work, Irrigation Ditches, Levee Building, Leveling Land, Road Making, etc.

This implement will take up and carry its load to any desired distance. It will distribute the dirt evenly or deposit its load in bulk as desired. It will do the work of Scraper, Grader, and Carrier. Thousands of these Scrapers are in use in all parts of the country.

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**BLUE AND RED GUM TREES,** all transplanted, healthy, hardy stock. Will send any size required, from 6 to 10 up to 12 to 18 inches high, at above price. Any size of Monterey Cypress at low rates. Send stamps for sample boxes. The best trees, for the least money, in the State. **GEO. R. BAILEY, Park Nursery, Berkeley, Cal.**

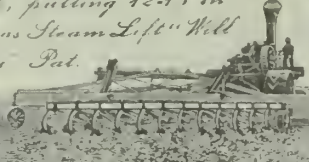

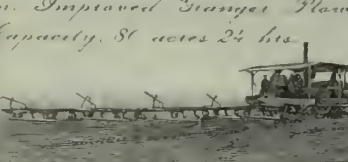

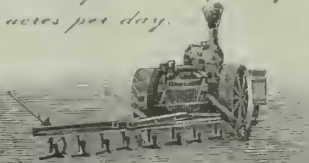

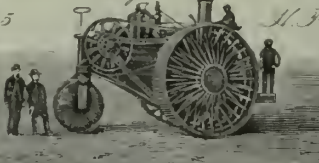

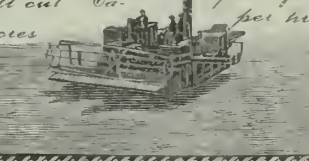





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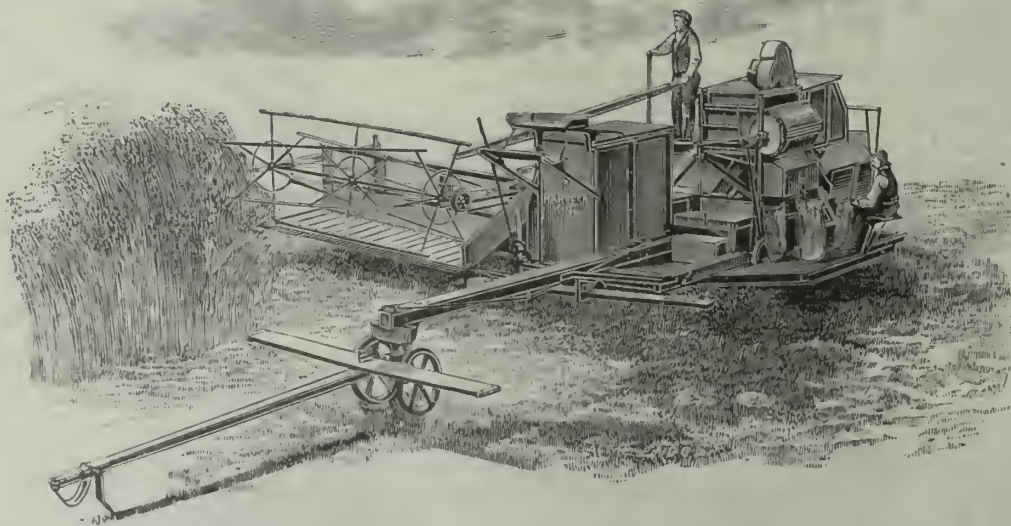


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<p>Benicia Great Plow Traction at work, pulling 12-15 in. Plows Steam Lift "Well" Key Pat.</p> 	<p>Benicia Traction Steam Lift "Well" Key Pat.</p> 	<p>Benicia Traction, pulling 20-40 in. Improved Granger Plows Capacity, 81 acres 24 hrs.</p> 	<p>Benicia Steam Traction with Peerless Plow 16-18 inch 40 H.P.</p> 
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CALIFORNIA  
STATE

# PACIFIC RURAL PRESS

Vol. XLI.—No. 16.

SAN FRANCISCO, SATURDAY, APRIL 18, 1891.

DEWEY & CO., Publishers,  
Office, 220 Market St.



OUR DISTINGUISHED VISITOR, BENJAMIN HARRISON, PRESIDENT OF THE UNITED STATES.—See page 372.



## CORRESPONDENCE.

Correspondents are alone responsible for their opinions.

## Fruit Notes in Sacramento Valley and Foothills.

EDITORS PRESS:—In the foothills of Calaveras, the apple crop promises well, the scale, however, has gained entrance and will, no doubt, prove a troublesome pest. The peach orchards are full of blooms and the outlook promising. In the lower sections the orange has proved itself at home. The fig does well up to an elevation of 1800 feet and in suitable locations at over 2300 feet.

Passing over into Yone Valley, Amador Co., the Q. ranch of Mr. Geo. Woolsey, is looking excellent. Some of the other fruit ranches suffered very severely from the rains of the winter of '89 and '90, when the water stood a foot deep all over the ground for a month's time. That the Q. ranch escaped with so light a loss, is due to the fact that the trees are given every possible attention, kept in a most thrifty healthy condition, and in consequence are the better able to withstand and come out unaffected from a season that proved very destructive to the surrounding orchards.

I meet a great many fruit-growers, who assert that it pays to spray fruit trees even if they are not affected with scale, as it acts as a tonic to the trees. One thing is certain, there is more money in five acres of fruit given every attention than in 40 that is only half cared for.

In Placer Co., the peach crop never looked so promising, the trees are very thrifty and one mass of bloom. In spraying, the growers have used lime, sulphur and salt and the I. X. L. compound.

Many were late in spraying and claim that the lime kills the open bloom, so have sprayed the trees with the blooms unopened with the lime, sulphur and salt, and the trees in full bloom, with the I. X. L. This season will demonstrate what value there is in the I. X. L.

There is one feature of the fruit business that is to be deplored and that is the fact that the whole business is going into the hands of the Chinese. Go where you will and you will find the largest, finest and most profitable fruit ranches, with very few exceptions, are rented to Chinamen. The fruit-grower takes the land in its wild condition, clears away the wild growth, plants and grows his orchard until he has it in full bearing and then hands it over to Chinamen. The door of the once cheerful home bears the red label of the Chinese renter. Everything about the house shows into whose hands it has fallen. For the first year the property does well, owing to its previous care. In the second year it begins to decline and in less than five years the Chinaman has squeezed the pulp out of it, and returns the seed and skin to its former owner, while he seeks a better property. It does not require a prophet to foretell the result of this practice. The Chinaman does not go into any section to benefit it, and no section can grow and prosper that hands its business over to the Chinese while the owners move into other parts of the State.

Placer County is receiving a large number of English families of the better class who come here with capital and fully intend to make this their permanent home. They seem to prefer the orange for their operations, and are on the search for suitable lands for orange-growing. One reason why the orange has proved a sure crop in Placer Co. is the fact that the trees are grown there not in hot-houses, but right out on the hillside, and thus thoroughly acclimated. The Aloha Nurseries at Penryn, with Mr. F. C. Miles of the State Board of Horticultural Commissioners as manager, have over 30,000 orange trees growing that not only show a thrifty growth, but a most excellent root system.

While the orange and the fig do very well throughout the fruit belt of Placer, the principal fruit is the peach. As the peaches are all shipped East to be eaten out of hand, every effort is put forth to have the fruit large, high-colored, juicy and well flavored. To obtain these results, the proper varieties, high cultivation, judicious thinning, irrigation and careful selection are requisite. Placer county fruit stands A. No. 1 in the Eastern markets, but if the writer does not miss his guess, the present swarm of Chinese will require close watching by the fruit-shippers if this high standard is to be kept up.

In Yuba and Sutter counties, the fruit prospects could not be better. One thing is noticeable everywhere, and that is that the fruit of these counties is several weeks ahead of Placer this season. In Yuba and Sutter, the fruits are grown principally for the local canneries. The fruits are all grown without irrigation, with the result that the fruit is very meaty, and while not as large as that of irrigated sections, yet fully as valuable for drying and much more so for canning purposes. I doubt if there is another section where the business of fruit-growing is as uniformly profitable and satisfactory as in this vicinity. The fruit of the best orchards is all engaged, at a fixed price, before it is grown, and in this way all doubt and uncertainty is removed.

The fact that the few orange trees growing all over the country in the front-yards of the ranchers do well has at last forced the fact upon the people that considerable areas of Sut-

ter and Yuba are adapted to the orange, and in consequence large plantations are being set out and the trees are looking fine.

Sutter is the home of the Thompson Seedless Sultanias. This grape, while producing a greater yield per acre, has the desirable characteristic of ripening before the Muscats. In consequence it escapes the early rains that play havoc with the ordinary Sultanias; and then, too, the same trays can be used later for the Muscats.

Mr. B. G. Stabler of Yuba City called my attention to a small bug, resembling the Vedalia, that he finds working on the San Jose scale. The insect is very small, of a dirty white color, with black spots, plump, and looks almost like a seed. I trust it may grow and multiply.

At Smartsville the orange is attracting attention, and in time will be the leading fruit of the section. By careful selection of the land and protecting the trees for the first two years, it is possible to raise the orange wherever the fig will grow, and by planting the Japanese orange in the lower, colder situations the field for orange-growing is considerably increased.

In the sections I have referred to, the outlook for this season is exceedingly good and every one is confident that this will be the greatest year that California has ever had in her fruit industry. E. H. SCHAEFFLE.

Murphys, Cal.

## HORTICULTURE.

## Strawberries for the Farmer's Table.

[Written by request and read before Turner Grange, Oregon, by F. S. MATTHEWS, and, on motion, ordered sent to the PACIFIC RURAL PRESS.]

\* \* \* That our respected progenitors (Adam and Eve) should have smuggled some strawberry plants out with them when they left the Garden of Eden was no more than a natural sequence, and since that time they have run wild in many lands of the earth. Cultivation has developed many varieties, and vastly improved them in size and productiveness, while the berry has maintained its popularity as a delicious delicacy, until raising strawberries has grown to be a large industry, occupying thousands of acres of land and furnishing lucrative business for hundreds of people; and whole trains of cars are sent into New York, Chicago, and other large cities, during the season. Although the strawberry is 90 per cent water, people prefer to take water in this pleasant form. The farmer is no exception to this rule, and likes a good thing as well as anybody, and so does his wife, and his children (if he has any).

It then becomes a question of the best variety to plant, and conditions and management to produce them successfully.

First, as to varieties. The old Wilson is the standard variety here for market, and for those who love a sour berry, it is the best for family use. For canning, it has no superior. For hardiness and vigor of plant, for adaptability to all soils, for size and appearance, it has few equals. It is productive, but it is sour, and for those who love a sweet, high-flavored, luscious strawberry, it is not fit to eat, unless one is hungry for strawberries. This is from the standpoint of a producer who knows by practical experience what good berries are, and what is fit for a farmer's table. The Wilson is good enough for the urban citizen, and little else is raised here for market.

In the line of sweet berries (so-called; they are all sub-acid) there is none better, perhaps, than the Sharpless—hardy, productive, large size, fine color, sub acid, high flavor, delicious. The tendency of its fruit to sun scald in very hot weather and its long fruit stems allowing the fruit to lie on the ground too much, are its chief failings.

We have tested many varieties, but none have given as good satisfaction as those named. The Juncunda or the Parry will yield a few berries a little later, but they have nothing else to recommend them above the Wilson or the Sharpless.

We have one variety of which we are hopeful that we have found something better than others. It is an accidental seedling, probably a hybrid, and for size of berry, appearance and sweet, delicious flavor, it has no superior. It is the earliest berry we know of, giving us ripe fruit four to six days sooner than any other. It is productive as any, very easy to pick, and easy to hull, is firm, and is the most "meaty" strawberry I ever saw. The plant is reasonably hardy here in the red hill soil, and we are hopeful of it. At the same time, we have tried so many of the highly praised varieties which have all proved unsatisfactory, that we have grown cautious. I expect to put some of our new berry on this Grange table the coming season, and let the members try their palates on it.

Remarks upon the wholesome properties of strawberries being now in order, and as I am not now in the practice of medicine, I can speak freely with a clear conscience, and I tell you that if every farmer would put more berries and cream on his table and less "old hog," it would be a great improvement. If all the money now spent by farmers for pills, plasters and "patent medicines," bitters and other slops of one kind or another, and which manufacture more drunkards from the cradle up, than all the saloons in the land do, of "our boys," over which so much bus and cry is

made, was expended in berries (and other fruits) and sugar and cream and eaten off the farmer's table, better health, clearer minds, greater intelligence, more "gleams of horse sense," better looks and a higher state of civilization would result. The pocket-flask would not be so common in the inside pocket of the young man's overcoat nor the glass of beer and the cigar so much craved by the farmer when he goes to town, and even "McKinley prices" would pinch a little less.

## As to Cultivation.

The poorest land on your farm will usually produce the best strawberries, especially if it is sandy or gravelly. Moist, rich bottoms or made land is not good. They grow too much top and too little fruit. Plow land deep; make the surface smooth and in good tilth and set plants in rows three feet apart and about 14 to 16 inches apart in the row. Cultivate cleanly, but don't hill up; keep off runners and you will have berries. It is best to plant in spring and let no fruit grow the first season. Do not cultivate later than February; then leave until fruit is gone and then cut runners and cultivate. If you cultivate in spring, you leave the ground loose and your berries are liable to be dirty; and washing them is not only a bothersome labor but injures the appearance and flavor. [This advice is given for Oregon.—EDS. PRESS.]

Raise three or four crops, and then, when the last crop is gone, clean your land of plants, summer fallow it cleanly until the fall rains have brought up all weed seed, and when it is in condition plow it deep and leave it until you are ready to plant in spring, when you only need to smooth the surface and plant again.

How many plants will supply a family? That depends. The size of the family. Their love for strawberries. How many friends you have. The productiveness of your land—are all factors in the problem. In fairly good land and a fairly good season you may count on a pound of berries to the plant. You will often hear stories of crops far larger than this, but, Queen Saba, blessed are they who do not expect too much. They shall not suffer disappointment.

Let the Granger plant strawberries. They are "good for food," they are "pleasant to the eyes," they are "to be desired to make one wise," let the woman "take of the fruit thereof," and eat and give to her husband with her, and he will eat; and her children also; and future generations shall rise up and call her memory blessed.

Aumsville, Ogn.

## TEXTILE INDUSTRIES.

## Ramie Again.

EDITORS PRESS:—Looking over the different periodicals, I see a great interest is taken in booming the ramie plant, and a great many very misleading statements are made. For instance, I see it stated that it takes 3000 plants to plant an acre in ramie. Now the writer who asserts anything like that has never seen a ramie field. To plant an acre in ramie takes no less than 12,500 plants. It has to be planted in rows, the rows 2½ feet apart, and in the rows no farther than 12 inches. The object is to get a thick stand as soon as possible. If the plants are farther apart they branch out too much in making side shoots, and all such stems do not produce valuable long fibers. Even at the above-mentioned distance the stand will hardly be close enough to get much fiber the first season. It is the long, slender stems that produce the fine, silk-like fiber. They ought not to be larger than one-quarter inch diameter.

Another misleading point is, I see it advocated, that ramie does not require much moisture, now let me tell you no greater blunder could be made than to nurse such impressions. Ramie is a nettle, and wants much water, but no standing water, and to make a growth of 5½ to 6 feet in six weeks, requires lots of moisture, and this cannot and is not furnished by the dew, so in our State it has to be brought to the plant during the summer by irrigation. By such quick forced growth the stems grow of an almost even size, and in decorticating by a good machine the fiber comes off in nice even ribbons.

Another grand blunder I see published is that ramie does not want rob land—that almost any land is good enough for it. This is a mistake; on the contrary, to be successful, it will require the very best of land and land that does not bake. Of course it will grow anywhere where the ground does not freeze four inches deep, but growing and raising profitable crops are two very distinct factors.

Opinion among ramie culturists is divided regarding the decorticating. Some advocate doing the work when the stems are in a green condition and others when the stems are dry. To work the stems green and de-gum the fiber, at once produces a more silky-like fiber, with a more lustrous gloss, and no bleaching is required, but the machine for this process has to be brought to the field and worked there. Others advocate drying the stems and hauling them to a stationary place to decorticate them. The fibers worked in this way require bleaching and never look as fine as those worked green. Of course there are circumstances where either has advantages. I, for my part, like the green process for many reasons.

We have been in the United States very slow

in the culture of ramie, simply because we had no good machines to make a marketable fiber and were too much prejudiced to get or import the only perfected machinery in existence at the present time. This is the machine used in France the last 12 years. I do not think that the machine worked at the last Mechanics' Fair will produce a marketable fiber that will bring a high price in Bradford, England, or in France, as it breaks too much off the fiber and the product is no better than that produced by the machine invented 21 years ago by Emile Lefranc in New Orleans. The whole construction of the machine looks very much like it; it is clumsy and too heavy. The No. 1 Favier machine requires one-horse power and one hand to feed the stems to the machine and one hand to receive the fiber. The No. 2 Favier machine requires the same power but can be worked by two feeders and two receivers, and produces double the amount of fiber. No. 3 Favier machine produces a fiber ready for the spinners, but costs more. In those machines there is absolutely no loss and no danger; children over 13 years can work them.

Now, my object in writing this is to assist in bringing the thought of those who contemplate to go into ramie culture into right and successful channels. The State giving bounty I do not approve at all, as ramie by itself is too good an article to require State aid. Ramie produces in France about \$175 worth of raw fiber per acre, at the rate of four cents per pound, of non-de-gummed fiber, and I would not be afraid to guarantee a production of \$200 worth of fiber by having my choice of land and plenty of water.

I have a process of increasing the plants very rapidly, which I found out during the first excitement of ramie culture soon after Sr. Don Benito Rotze brought the first plants from Santa Camopan in the State of Vera Cruz, Mexico, 1867, to New Orleans. I planted the first plants in the United States and had the first three-quarters acre in ramie in this country, and the first plants that came to California were raised on my place in Summit, Mississippi, and sent by an agent I had in New Orleans, so I know some little about ramie.

I mentioned above that I preferred to decorticate the fiber in the green state, and one main reason is: There is on each stem a bushy head composed of leaves and a stem tender and succulent, about six to eight inches long. This head falls off or breaks off in the machine and is afterward shaken out and separated from the lower wooden part of the stems and dried; it makes the finest kind of hay for milk cows, or can be fed green right from the machine.

Ramie properly introduced and prepared, will undoubtedly form in the future a great industry. To make bags of it would be all wrong, as jute can be raised and imported for one-half the value of ramie.

In the RURAL PRESS of the 4th instant, in talking about ramie, a writer says: "When the fiber is produced, it should never be allowed to find its way to France." Now, suppose we succeed in producing a good, fine, ribbon-like fiber and a French agent should happen to be in San Francisco and offer one cent or even one-half cent more than anybody here, would not the producer sell to the Frenchman? It will be time enough to boast whenever we have a fiber that the French ramie manufacturers will want to buy, but as long as we have no better machinery than what I have seen until now, we need not fear that a Frenchman will come and offer a very high price for our fiber.

Cloverdale, April 9, '91. G. HUNZIKER.

[In this matter of ramie as in all other mooted industries, the RURAL has only a wide interest, and that is to present the subject fully and fairly before our readers. Mr. Hunziker is an old subscriber, and a man of good repute, and the results of his long experience and observation form an acceptable contribution to the general consideration of the subject.—EDS. PRESS.]

## THE STOCK YARD.

## Stock Feeding in the Great West.

In the sections of the Great West that are well developed, certain factors should be observed in the production of meat, for both economy and quality. I shall summarize the results of some 15 years of continuous research in animal nutrition, and some 25 years of observation as a feeder, without marshaling the corroborating data, which are often voluminous, in support of the direct assertion made.

1. Only good animals that inherit good forms, or that have the largest ratio of choice parts to the whole carcass should be bred, because such steers always sell at 25 per cent or more higher than those steers that are of ordinary structure. The latter class of steers return less revenue for the food eaten without a single compensating advantage. It is a sluggish mind that follows the practice of feeding ill-made steers.

2. It is well known that meat varies in individual animals in flavor and in tenderness. The development of the art of breeding and of the intelligence of the tastes of men has arrived at that stage of growth that demands the selection of breeding stock with reference to the points above suggested. The qualities mentioned, like every other animal characteristic,



are hereditary, and may be forced in a family.

3. I adhere to the heretofore expressed belief that our cattle sires should be tested to ascertain their capacity for consumption, digestion and assimilation of food. Animals vary in their powers in these directions, and only those that possess these powers to a high degree should propagate their kind. Breeding has fixed form, by following a standard, but I assert that it has not fixed the qualities in question. It is possible for a wealthy breeder to do as great a work for stock improvement as that of Bakewell.

4. "Breed goes in at the month," except form; yes, largely so. Without organizing any corroborating facts, I assert a conviction that will excite the indignation or contempt of many able men, that native stock of this country will make nearly as much, possibly quite as much, gain from a pound of food as will our pure-bred stock. If my position is true, and I am sure it is far nearer the truth than breeders have thought, it means that breeders must now look beyond form and that poor feeders must exalt food more than they have. The poor feeder is pampering himself.

5. Shelter in the north reduces the amount of food consumed, increases the value of manure produced, and increases the value of hay housed. These gains pay for shelter, and the assertion rests upon practical trials. I found over 13 per cent of hay was lost in the ordinary stack and only about one per cent in the mow, while less hay was eaten by sheltered steers and sheltered pigs than by unsanctified ones.

6. Steers must grow steadily from birth to death. About two-thirds of the food eaten by a half-grown animal is used for maintenance, hence every day that an animal merely holds his own, it is burning the taper without giving light, and is therefore using food at a total loss. Almost all of the philosophy of early maturity in its relation to economy of growth rests in this fact. A four-year-old steer that weighs no more than a two-year-old steer has consumed twice the food of maintenance, and therefore has consumed a very high ratio of unnecessary food.

7. Steers should be sold at the highest weight that will bring the highest market rate. This is due to the fact that the food of maintenance is nearly in proportion to weight, hence the food that would merely maintain a nearly matured steer, or say one weighing 1400 pounds, would be more than enough to make two pounds of growth if fed to calves weighing 300 pounds; in fact, it would feed two such calves and make a pound of growth on each.

8. Our cheapest beef is made on pasture feed, and only for pasture-feed use it is possible to sell beef except at a ruinous loss. Formation of good pastures is the most direct road to the cheapest beef, and the pastures should, therefore, receive the first and most thoughtful attention of the feeders.

9. Perfectly well cured food fed in its natural form is the most economical system of feeding. It has been shown that cooking, steaming, souring, cutting, etc., do not add to the nutritive effect of food, while grinding 30-cent corn does not pay. It is also practically demonstrated that ensilage is no more effective than the same food would have been had it been air-dried. This does not bear upon the relative economy of air-drying versus storing in the silo.

10. Steers should be fed at morning, noon and night. Frequent feeding increases the ratio digested, so it is held. This is not demonstrated. It is shown, or well known by good feeders, that small and not great rations of coarse food should be given. When several small rations are fed, the animal has fresh food that has not been selected from or breathed over, and hence it will be more readily eaten. That is, if I desired to feed ten pounds of hay in the morning, I would not give it all in one ration, but in two or three rations, following each other in quick succession. More will be eaten by this practice, and the ratio of excess food to maintenance food will be thus increased, and therefore, the ratio that grows to growth is thus increased.

11. The German theory of nutritive ratio is of very little consequence compared to that of feeding plenty of palatable foods. We need worry but little over the German views, but much over securing large rations consumed, for the amount eaten will depend upon the palatableness of food given and the ratio of the total food given that goes to growth will depend on the amount eaten. When 30 pounds are eaten, 18 pounds being maintenance ration, 40 per cent of the total food given goes to growth, but if only 24 pounds are given then only 25 per cent of the food-given goes to growth. No palatable ration is likely to be made up that will not contain protein enough. Care in cutting hay at the right moment, and of curing it in the best order, and preserving it in the best manner determines much its palatableness. I mention this as it is still our cheapest food and most abused in practice.

12. The ratio of muscle to fat, the color of the fat, etc., in animals can be determined by the ration fed. A protein ration, like bran, cottonseed meal, clover, etc., makes animal's growth containing much lean meat, while carbonaceous foods, like corn, produce more fat and distribute it differently.

13. The west will have to consider feeding animals more with reference to their influence on the fertility of the farm and less with reference to direct profit than has been heretofore the case.—Prof. Sanborn in *Live Stock Indicator*.

## THE DAIRY.

### Silos and Silage in Oregon.

[Bulletin No. 9 of Oregon Agricultural Experiment Station by Prof. H. T. French, Agriculturist.]

In response to numerous inquiries, regarding the use of the silo in storing food for stock, the following report of work done in this line at the Experiment Station, has been prepared:

A small silo was built in the barn on the station farm, in 1889. It consisted of a portion of the lower floor, 10x12 feet, partitioned off with 2x6 studding, placed 12 inches apart, and extending to the upper floor, 10 feet above. On the side next the side of the barn the studs were 16 inches apart. The floor of the silo was made on the ground, 18 inches below the barn floor, making the silo 1½ feet deep. The studding was boarded inside with common rough lumber running across the studs. Tarrd building paper was placed on this, lapping enough to break joints. Then a covering of matched flooring running up and down was put over the paper, making a smooth and air tight wall. A coat of hot gas tar and resin was put on the last covering, to protect the lumber from the hot juices of the silage. The tar and resin was used, in the proportion of one pound of resin to one gallon of tar. This portion of the silo, has been filled the third time, and there is no sign of decay in the lumber. There was no floor in the silo when filled the first time, simply the ground covered with two or three inches of pounded gravel. This worked all right, until the rats found out the merits of silage, and began explorations. A cement bottom has since been put in, to protect the silo from these rodents.

Many use plank floors and are much pleased with them; observing the same precautions that are taken in the construction of the walls—namely, to keep out the air and vermin, and to make it strong enough to support the great weight of the green silage.

In the fall of 1889 the silo was partially filled with corn of several varieties, grown on the experimental plots and on the farm. About 15 tons were available for silage, hence the silo was only partially filled. The filling was delayed by the outer not arriving on time. On account of this delay the corn was very badly frothtitten, so much so that when cut the leaves were dry and brittle. Notwithstanding this condition of the fodder, it made excellent feed, none being refused by the stock. The silo was filled the first week in October.

After filling the silo tarrd paper was spread over the top, and loose boards laid over this, with about half of a cord of fir wood placed on the boards to hold them in position, and press them down in a measure. There was comparatively little weight, and even this may be dispensed with, as many have determined in practice.

When the silo was opened January 1st, 1890, there was a few inches of poor silage on the top. This was removed to the manure pile and feeding begun. All of the covering was removed from the top, which is thought to be the best method, as there is no loss when a layer is taken off every day or two for feeding.

There were no animals on the farm that had ever been fed on silage, yet some of them ate it at once, and all soon became very fond of it. It is best to feed only a little of the silage at first, as in the case of any new kind of food, animals have to learn to eat it. The animals were given one feed each day for a few days; but later two feeds were given, constituting the main ration. A small ration of bran was given to cows giving milk. Better results are realized, if there is one feed of dry material given each day, or the animals are given the privilege of the straw stack. I believe straw can be utilized very satisfactorily when fed in this way.

Some digestive experiments in feeding silage were carried on by the chemist of the station, the results of which were published in Bulletin No. 6.

All of the cattle, consisting of ten head, were fed on the silage, until the middle of March, when the supply gave out. In May, 1890, five or six tons of mixed clover and grass, cut from the college lawn, were placed in the silo. This was covered with a layer, three inches thick, of green rye which had been run through the feed cutter. The clover and grass was not cut with the feed cutter. The silo was covered as before, except there was no paper placed over the material. The feeding of the clover silage was begun July 1st. The animals were very fond of it, and the cows gave more milk than when running in the pasture. This is one of the strong points in favor of the silo in this State; i. e., by its use the supply of succulent food can be kept up during the dry season. Dairy products bring a better price at this time than earlier in the season, and the pastures invariably fail during these dry months. The practice of feeding silage at this season has been successfully followed by many who are engaged in the dairy business. At a Farmers' Institute, held at McMinnville, Col. T. Cornelius said that "he had fed his dairy stock on silage the year round, and found it more profitable than to pasture stock."

The clover silage was fed as long as it lasted with very satisfactory results.

Last fall we enlarged the silo on the station farm by building it ten feet higher in just the same manner that the lower portion was built. This addition has not proven an entire success,

from the fact that the wall next the side of the barn was not strong enough to hold the pressure. No injury was done to the building, yet the silage was slightly damaged, owing to the entrance of air at the corners, where the walls sprung apart. In building a silo of this height, 2x10 should be used for studding, placed not more than 16 inches apart; then there is little danger and no loss.

Forty tons of corn, by actual weight, were put up the first week in October. There was no paper used in covering the top. The boards were used as before, and a few sticks of wood thrown on to hold them in place.

The silo was opened December 1st, showing very little loss, indeed not more than two or three inches. This supply of silage will last our stock until May 15th, giving them all they will eat, in addition to what they get at the straw stack. Eleven head of grown cattle are being fed during this time, besides four calves from four to eight months old.

The silage is of excellent quality and very nutritious, as shown by the condition of the animals. The cows giving milk have had a small ration of bran and shorts. A Jersey hull has been fed on silage almost exclusively, and has maintained his condition, which is not poor by any means. There was a large proportion of grain grown with the fodder, making the silage of high feeding value. Three varieties of dent corn constituted the larger portion of silage. A number of varieties were grown in small plots. The Pride of the North was the principal variety grown. Another variety called Hibbard corn was grown, giving good results. This is probably a cross between flint corn and some variety of dent. It is medium in size and in date of ripening. A variety of dent corn was obtained from the southern part of Michigan, which promises to mature successfully, and it produces a larger growth than the other varieties mentioned.

During the coming season a trial will be made of putting green rye, peas and vetches for feed during the dry weather of July and August. If this proves successful, then the same silo can be used to serve a double purpose, that of summer feeding, and again filled with corn for winter feeding.

There is no doubt that corn is the most satisfactory crop to grow for the principal supply of silage. Wheat, oats, peas, rye and numerous other crops have been grown for silage with more or less satisfaction.

As regards the construction of the silo, there is little to be said; for it has been fully explained, in agricultural journals and in station reports, both by illustrations and printed details. In case such details are not understood, any information in our power will be cheerfully granted upon application. It is sufficient to say that there is nothing about the construction of the silo which cannot be mastered by the average farmer, or at most with the assistance of a carpenter.

There is one point in favor of the construction of silos in this valley, over that in sections where a much lower temperature prevails in winter. No double wall is necessary to keep the frost from entering. The outside covering of the silo may be cheap, and when built in the barn, only the inner coverings are needed.

We would recommend that the floor of the silo extend to the ground when possible, and that cement be used instead of wood. The cost is not great and the durability is much in its favor.

The cost of the silo can be safely placed at one dollar per ton of storage capacity, and in many cases this can be very materially reduced. The silo should be well built, at all events, for it is among the permanent improvements of the farm, and its success will be largely gauged by the thoroughness of the work.

In portions of this State, the silo becomes of double importance in providing a comparatively cheap storage capacity for food that otherwise could not be cured for stock. Corn fodder and the grain as well, when stored in the ordinary way, will not keep during the damp weather which prevails in winter; but when placed in the silo they keep perfectly, and are in the very best condition for handling and for economical feeding.

For cutting the corn fodder there are many good improved machines. We used the Ross cutter, No. 11 A. The size is too small for a large silo; but for a small farm it does the work very satisfactorily. The power used has been a small portable engine hired for the purpose. The station is about to purchase a tread-power for this work. This power can be placed in the barn and used during stormy weather, in cutting straw and hay, or for grinding food. The cutter is gauged so that it will cut the corn fodder and ears into pieces about an inch long. On the whole, the work at the station in storing food in this manner has been a success, and we believe will prove successful throughout the valley, and in other parts of the State where corn, or some suitable forage plant can be grown with a reasonable degree of certainty.

While corn does not mature here quite as readily as it does in the Eastern States, yet it will reach the stage for making good silage with little difficulty. Corn for ensilage should be planted in rich ground, in drills three and one-half or four feet apart. If the stalks are about one foot apart in the drills, on strong soil, they will produce an average of one good-sized ear to the stalk. Corn planted in this way will yield from eight to fifteen tons per acre.

We have failed to meet with a single man

who has tried the use of the silo, and is not highly gratified with his success. The following extract, from a paper written on this subject, by Col. T. Cornelius one of the most successful farmers in the Willamette valley, speaks in the strongest terms of the merits of the silo:

"My experience with the silo is some thing like this: In the summer of 1888 I built a silo, which holds almost 225 tons, filled it with green corn and I was so well pleased with the result that the following year I built three other silos and filled them with green corn, clover, oats, and wheat, all of which made good feed. This year I put up 1000 tons of corn, clover and oats, mostly corn. I am well pleased with the result—would not undertake to keep any considerable number of stock on a farm without a silo, and believe farming lands in this State, especially for stock or dairy farming, is worth at least 25 per cent more with the aid of the silo than without it, as any of our valley lands may be made to support one cow per acre with the silo, while without the silo it requires above four acres to support one cow, and any land reasonably near to transportation in the Willamette valley that will support one cow per acre is well worth \$50 per acre for stock farming, while land that will only support one cow to four acres, is only worth \$10 per acre."

This statement coming from a man that has worked out the merits of the method from a practical stand point, is worthy of careful consideration.

That the State of Oregon should meet her demands for dairy products is putting it mildly. She ought to export such products rather than import them, and the silo will assist in a large measure in bringing this about.

## FORESTRY.

### Forestry at the World's Fair.

Not the least important of the great divisions of the World's Columbian Exposition is that devoted to Forestry. Mr. W. I. Buchanan, Chief of the Department of Agriculture, who is at present in charge of the Forestry Department, has entered actively upon the work of enlisting the various timber and lumber interests, and State Forestry Bureaus in this important feature of the Exposition. Speaking of the matter Mr. Buchanan says:

"I am very much gratified by responses received to letters sent out to State Forestry Bureaus; to the journals devoted to forestry and lumber and others interested in this subject. From the general tone of these replies I am encouraged to believe that the Forestry Exhibit will be very full and complete, and will be one of the most attractive ever shown at any Exposition.

"The importance of this department of the Exposition can scarcely be overestimated. The question of erecting a building for the forestry exhibit, through the co-operation of the various forestry interests in its construction, so as to illustrate in a unique and attractive manner all the woods of commerce in their natural and finished states, is in contemplation and is a question for future determination. The statistics of wood and timber consumption in the United States are full of meaning, and forcibly suggest that the efforts on the part of the General Government and the several States to conserve the forest supply and promote timber culture were inaugurated none too soon and cannot be prosecuted too vigorously. It is intended that the forestry display shall fully illustrate what has been accomplished in this direction, and that State Boards of Forestry will show the most desirable methods of observing Arbor Day, the benefits derived therefrom, and the progress made by them in tree culture. A comparison of notes and a general survey of the situation cannot fail to be interesting, instructive and profitable.

"In a general way, it may be said that the forestry exhibit will embrace wood in its natural state from every section of this and other countries, thus affording a most excellent opportunity for comparing the same varieties growing in different latitudes, and the climatic effect on forest growth. Worked timber in all of its many commercial forms will be shown by beautiful specimens selected from the wood-working establishments of the world, including the various ornamental woods used in furniture, veneers and interior decorations.

"The advance in the science of preparing timber in various ways to resist decay and the encroachments of animal life will be appropriately illustrated. There will be an exhibit of dye woods and barks; of lichens, mosses and ferns; of commercial gums, vegetable ivory, wood pulp, and a curious collection of seeds, and peculiarities of forest growth, such as cypress knees, burls, etc.

"A good deal of attention will be devoted to forest botany, the distribution of forests, of genera and of species, as well as the anatomy and structure of woods, and the diseases of forest trees and timber.

"Forest management, maps, illustrations and instruments for measuring standing timber; growth of different ages and soils; graphic and other illustrations showing rate of growth; influence of various managements on tree growth; statistics of the lumber trade and of forestry; the harvesting of forest products; the turpentine and charcoal industries, will all receive proper attention.



## PATRONS OF HUSBANDRY.

In our Rural Press Official Grange Edition, issued every week, will be found additional matter from this and other jurisdictions, of interest and importance to Patrons. Any subscriber who wishes can change free to that edition.

## The Master's Desk.

E. W. DAVIS, W. M. S. G. OF CALIFORNIA.

## Ho for Oregon!

The following, from the Pacific Coast Steamship Co., is self-explanatory. It is the best that can be done. Now is your chance to have a cheap trip by sea. You can attend the Oregon State Grange for a small sum of money. Do you want to go? If so, send your name and secure berth at once of D. W. Hitchcock at No. 1 Montgomery St., S. F., Cal.

SAN FRANCISCO, April 10, 1891.

E. W. Davis, Esq., Santa Rosa, Cal.—DEAR SIR: We hereby agree to carry ten or more passengers from San Francisco, Cal., to Portland, Or., and return (first-class accommodations in every particular guaranteed) for the sum of \$25 for each passenger. Tickets to be good for 60 days and to be issued at any time between the 10th and 23d of May, 1891. We will do our best to obtain special railroad rates from Portland to Hillsboro, Or., and return, these special rates being made on account of the excursion to the Oregon State Grange session.

D. W. HITCHCOCK,  
For the company.

The season of picnics seems to be near at hand. Well-filled baskets and depleted benches will tell you all about the good times coming. But it will be very gratifying to hundreds of readers if somebody would take the time to write these events for publication in our PRESS. We know of many successful Harvest Feasts and Reunions which have not been "written up." Whose is the fault?

Who plows the straightest furrow in the neighborhood of your Grange? Get that man to join your Subordinate. He will make a faithful member. Any man who makes a straight line in life is a man worthy of consideration.

Bennet Valley Grange reports a brighter prospect for an increase of membership.

The successful General is the man who, in the hottest of the fight, is perfectly composed. The faithful and competent fireman is the man who is always "cool," that is, composed. The best housewife is the one who does not become flurried if there is a rush of company; she is the woman who keeps composed. The successful business man is the composed, cool-headed, steady man. The Order that is to hold and win influence must be composed of composed members. Composedness is a natural estate. Let us seek such a naturalness as will make us steady, true and always composed. Never be in such a hurry to say or to do something that you lose your self-composedness. Stand by the self-poised, cool-headed, honest-minded person, whomever he be, that is composed at all times and in all places.

The Worthy Overseer, Bro. A. P. Roache of Watsonville, Cal., has promised to do some "field work" for the Grange. Call on him, and don't take "No" for an answer except there is sickness in his family.

Send out your harvesters and gleaners! Let them gather in grain for the Grange. Every extra kernel means an extra plant after the coming seed-time.

There is a key to the situation. Do you know the Grange holds the key?

The man who thinks nowadays that he holds any intelligent body of people in his political grasp is quite apt to make a "discovery" when it is too late.

Intelligence, sobriety, honesty and political purity are much needed in public stations. The Grange may have to furnish men with such qualifications. It has many such men.

Now is the season of flowers. Which of your lady friends has and tends with her own hands the prettiest flower garden? Such a lady ought to belong to your Grange. You want somebody to scatter sweet thoughts as well as laden the air with the aroma of flowers. The flower of good works outlives any human being. Get the author of good words and good works to join the Order of Patrons of Husbandry, an Order that is ever ready to help the needy, raise the fallen, and scatter the flowers of forgiveness and love by everybody's roadside.

Ask every member of your Grange who is present at the next meeting to take home an application for membership. Have all return these applications at next meeting. See how many blanks there will be. I think there will be a score of applications signed to one blank returned.

The National Farm and Fireside brings the sad news of the death of Bro. Rufus Prince, Master of Main State Grange. Bro. Prince succeeded the worthy and efficient Bro. Robie as Master. The Patrons of the "Pine Tree

State," as well as the Order everywhere, have lost an honorable, conscientious, efficient Patron. Those who met him for the first time at Atlanta soon saw in Rufus Prince a clear-minded, careful and progressive man. The Order of Patrons of Husbandry cannot well afford to lose such men. His place will not be easily filled. To the family, we extend profoundest sympathy and condolence.

Past Master Wm. Johnson has kindly agreed to do some active work for the Grange cause right away. We shall hope to hear from him and of his work.

## Essay on Agriculture.

[Written by a young Member and published by request of Waterloo Grange.]

Agriculture is the art of cultivating the ground for the production of food for the support of man. The earliest successful farming on record was in the great valleys of the Nile, Euphrates and Tigris. At a much later period, in Greece, agriculture flourished as early as 1000 B. C. The latter used forked sticks with handles for tilling the soil. The first important steps in modern scientific farming began in the 18th century, when new modes of culture, new practices, new methods of fertilizing, new forms and improvements in machinery became general. Through the golden light of chemistry, that indispensable handmaid of agriculture, the farmer has been compelled to abandon his old prejudices, until to-day husbandry, based upon established facts, is making great strides in the train of progress.

## The Present March of Improvements in America

Surpasses all other periods in history, and foreshadows the development of agricultural resources beyond the power of human conception. An impartial survey of the facts before us proves conclusively that the United States has largely increased the life-supporting means of the world. We may truly say that America is furnishing the world with food to a much greater extent than all other nations combined. The farmer feeds the world. Astonishing as are our resources, they are likely to be tested to the uttermost, for about all European nations increase in population without a corresponding increase in agricultural products; hence they will furnish profitable markets for the products of the American farmer for years to come.

## The Duty of American Farmers

Is plainly indicated by the march of onrrent events. He must do his individual part, meeting the world's demands on his country. In no way can this be done to better advantage than by co-operation, for we believe this is the most successful way of storing the mind with knowledge bearing on his calling.

At present, American agriculture is only, comparatively, in its infancy, with magnificent possibilities before it. But, though young, it is sturdy and stentorian; indeed, few of us comprehend the magnitude and diversity of our agricultural productions. Perhaps the idea cannot be made more impressive than by presenting a few estimates based upon Government reports. The number of bushels of grain produced in one year amount to 2,500,000,000, worth say \$1,200,000,000. The aggregate value of live-stock raised in the United States is estimated at \$500,000,000. Of these, four-fifths is sent to foreign countries; to say nothing about the other great staples of the country. Therefore give us a learned agricultural people and we may defy the world. As it is only intended in this paper to give a mere outline of agriculture, we will close by saying, give us an educated farming class, with a well defined ambition in it, and we need not fear for the future destiny of our great country.

## State Grange Open Meeting.

## Relief for Nebraska Sufferers.

On Tuesday the Executive Committee of the State Grange met in San Francisco.

Bro. Amos Adams recommended that an open meeting be held at the next meeting of the State Grange, and in accordance the following was adopted:

Resolved, that we recommend an open meeting, to be held on Wednesday, at 1:30 P. M., during the coming State Grange Session at Haywards, and that all our Senators and Representatives in Congress be invited by the Secretary of the State Grange to attend, and exchange opinions on subjects relating to agricultural interests.

The secretary offered the following relating to the Nebraska sufferers, which was adopted: Resolved, that we endorse Sister E. Z. Roache's appeal to the committees on Women's Work in our subordinate Granges, that such Grange contribute seeds, etc., to the suffering farmers of Nebraska, who lost their last crop and are without means for procuring seeds.

This is in accordance with the recommendation of Worthy Master Brigham of the National Grange. Contributions to be forwarded to J. R. Cantlin, Secretary Nebraska State Grange, at Webster, Neb.

On motion of the Worthy Master, \$25 was appropriated from the general fund of the State Grange to be forwarded to Bro. Cantlin, with instructions that the same be used for buying seeds for the purpose mentioned.

[Further proceedings will be found in our Grange edition.—EDS.]

## Sacramento Grange Hears Solid Words.

EDITORS PRESS:—Again I make my bow to the Granger world and blow my trumpet. I shall keep on blowing it for the Grange I have a warmth for as long as I have strength enough to do so. Our last meeting was not a success in point of attendance. There were not over 45 or 50 members present. Some had gone out to American River Grange to enjoy the great day there; others were engaged in their spring work, so the attendance was small, but the enthusiasm was not. It is strange how men can have the love for the Order the members of Sacramento Grange have if there is "nothing in it." There is something in it. We who are within the gates know what it is. Those who are shivering in the moisture outside do not, but they are the ones who condemn the Order.

## Believes in Progress.

Among the many good speeches of the day, the remarks of our esteemed brother J. B. Welty stand boldly out in prominence. Bro. Welty is progressive. There is no man on earth, to my knowledge, who is so ready at all times to listen to reason and accept innovation so readily as Bro. J. B. Welty. He is in no wise antagonistic to the ideas of others, even if they do not exactly dovetail with his own. He has a plan for reviving the present dictionaries that is the very essence of common sense and practicality. His plan is highly endorsed by Bro. Flint and others. Bro. Welty always has something to say when he comes to Grange and he knows how to say it right well. To-day his address ran in about this high moral groove. He said some people called him a crank and eccentric, and why? Simply because he believes in improvement. He is not contented to remain in the same spot his grandfather did, but has a desire to move upward to a better and higher and nobler sphere, believing that that which was appropriate 50 years ago is 50 years behind the time now. He believes in progress. He believes progress and improvement will make us better Grangers, therefore better citizens in our respective communities, better factors in the universe. He believes every man has a realm—an intellectual realm—intended for him, and he should try and reach it. No man has reached the circumference of his realm in this day and age for various causes. That this is deplorable is undisputed, but such is the case.

## Every Man Has His Mission

On earth, which is more than raising wheat or apples or potatoes alone. That man cannot avoid this menial labor, for his bread comes from the action of defective social machinery. He would like to acquire Hebrew and Latin and Greek in the original, and ascend, but it is denied him. He is a student and covets time for study, but he has it not. He would like to rise intellectually, shake off the old shell and be something more satisfactory to himself and elevate those around him as well; but no. Fate's decree, or better, man's decree wills it shall not be. He pointed to his hands and the evidence there of honest toil in his life's battle. His hands would not be so hard, and his brain brighter and more flexible, were man as a mass constituted with different traits of character. Society forces men into one sort of slavery; drudgery, the greatest evil of country life, into another. The man rash for wealth pushes one into ignorance. And just as long as it continues to go on, man will not reach the circumference of his capabilities; he will continue to be less than was intended he should be. "Give man 13 hours each day for study and recreation, and how much brighter and happier this world would be!" exclaimed our worthy brother. There would be less dissension, less jealousy, less narrow-mindedness. On the other hand, there would be more progress and improvement and intellectuality. It is a hard thing, he says, to convert the world. It is slow to act. One man seldom does it. Concentrated action in time might free man from the fetters that now bind him to drudgery and open brighter prospects. Man who does not work does not consume; but he who works too much does not repay the world the debt he owes it, except in manual labor, and the world wants something more. Barbarism is one cause of it. There are others.

## The Liquor Curse

Lowens man in degradation. It lights his soul and body and his country. It is a direct cause for the standing condition of affairs. The results of intemperance cause temperate men to work in a measure for their unfortunate brethren, at the expense of their own progress and enlightenment. Tobacco is another curse to mankind, says Brother Welty. It tends to weaken one's intellect, and the undeveloped suffer their portion for it. Tobacco is an unbidden demon. Tobacco and liquor are the greatest curses of all civilized countries. He has brought up one boy who never used either, and has two more under his care now, and not one ever touched tobacco in any form. "If all the gold in California was melted together and put at my feet, I would reject it rather than see my boys use tobacco or liquor." No gold can ever induce them to use either. The reason so many common panpers are abroad, so many whiskey and tobacco drunkards, is because no endeavors were used to bring up the children properly by their parents. If you are addicted to either the tobacco or liquor habit, break off.

"Do it; by the help of God do it. Man can make up his mind and do it if he will. We can all, if we will but exert a little spiritual manhood," says the brother. I would like to continue his points, but space forbids.

## A Pioneer Granger Speaks.

Bro. R. Davenport, the most beloved member of our Order, and the oldest member of the Grange in California, addressed the Grange. He loves the Order as no other man does; he loves it because it has been good to him. It is his solace and balm. He likes the Grange because it takes care of its own; he likes it because it makes us all better. The Grange obeys the injunctions of our Savior. He likes its social liberties. The greatest wonder to him is everybody does not belong. "May it go on and prosper."

Sacramento Grange will no doubt attend the festivities at Enterprise shortly, for its members always go there—some to hear the eloquent speeches, others to sample the delicious pies, but I go there to see the babies. Every young man and pa bring their little tots to me for inspection, and they are all about the same out that way—simply perfection. The owners got their money's worth. Faithfully,

MACK JR.  
S. C. Saco to Grange.

Union House, April 11th.

## A Visit to American River Grange.

EDITORS PRESS:—Everything was conducive for a good time at American River Grange last Saturday. The hall was prettily decorated with flowers, and each officer in his and her position, ready for work. After some little delay, (which only served to sharpen our appetites for chicken pie) those wishing to take the final pledge were escorted into the hall. There were 17 in the class—10 sisters and 7 brothers—who were instructed in the mysteries of the fourth degree in a very creditable manner. I was much pleased to find that the new class was composed principally of young people, but sorry to see the brothers in the minority. What we need in the Grange is more young people, and especially young men. You see I am an old maid and am particularly interested. While the old heads were talking so earnestly about the "tariff, taxes and transportation," and sighing over the wrongs and longing for the rights, the thought flashed through my mind, that there is another subject for them to think and ponder upon, and that is

## "Our Old Maids and Our Old Bachelors."

The country is full of them and what is to be done? Seems to me that instead of giving all the time to the "government," some of it, at least, should be given to the entertainment of our young people, who are still in the age of wild dreams and fancies, and who cannot, somehow, digest tax, tariff and transportation.

The Grange is a grand institution for the farmer, his wife, sons and daughters, and especially the feast days, where true, genuine farmer hospitality is extended. Here the wise ones have an opportunity to discuss their "pet hobbies," the mothers to talk of the most approved remedy for la grippe, and the young ladies and young gentlemen to meet each other and discuss the weather and "crops." If our young people cannot be enticed into the Grange under the present rules and regulations, why not

## Introduce New Attractions?

Once get them there, and you are all right; for they will amuse themselves if you have enough of them. Perhaps the reason I am going on at such a rate is because I lost my escort at the dinner table. He was a tall, handsome, old gentleman, and everything was all right until a pretty, young girl sat down near him. I very soon found his attentions diverted, and learned to my sorrow that these old heads have a fondness for pretty faces, and that the girls will coquette, and if not with the young, it must be the old. So do you wonder that I am anxious for a reinforcement of brothers in the Grange? But I am drifting from my subject. The meeting was a grand success, from start to finish. Earnest speeches were made by Bros. Caples, Simons, McConnell, Hack and others, also Sister Hattie Jones from Yuba City Grange. The feast was a decided credit to any Grange, and I wish to say, "Thank you for my pleasant time," to the sisters who did so much to make the day so enjoyable. Fraternally,

OLD MAID.

"LIFE IS REAL, LIFE IS EARNEST."—Do you know that to live a year in the present time, with a mind in condition to grasp our situation and improve by surrounding conditions, is worth a decade of ordinary life? The onward march of a spirit of justice and the rapid growth of fraternal feeling between man and man notes this the most sublime age which has ever yet dawned upon the earth. The high moral awakening has never before so thoroughly taken hold of the masses. The acute sensibilities of human misery are powerful emotions for agitating earnest souls to cry out and impel men to think and act in order that we may try to elevate the children of men above the enslaved condition caused by prejudice and selfish influence.—M. Whitehead.

OVERSEER ROACHE will, no doubt, give the Grange and Alliance picnickers, May 9th, a sensible and patriotic address of the best order. Let no farmers or their wives, boys and girls fall to turn out on that rare occasion.



## FARMERS' ALLIANCE.

SUBSCRIBERS wishing fuller information of the Alliance can have their names changed to the Grange Edition of the RURAL PRESS free, much to their advantage, this department being continued in the same.

### Stirring Words for All.

[By PRESIDENT CANNON.]

We will soon be in condition to open the battle. We have now 362 Alliances organized in this State, with a membership of about 22,000, and I may say to these members, buckle resolution around your heart and with renewed energy go forth to battle for the rights of humanity. Yours is no common cause—your light no flashing, fading luminary. It sends forth its steady rays from the blue dome of heaven to enlighten and beautify the darkest corners of the earth. Prove your devotion to a cause that would lift you above the condition of a tramp, a pauper, a slave. For your families and loved ones you dig, delve and sweat, you endure the winter's cold, the summer's heat, the oppressor's wrong, "the proud man's contumely and the rich man's scorn." This appears to be your heritage; what sacrifice are you making to mitigate this condition? Shall the arms of this great brotherhood fall paralyzed by your apathy? Shall the glorious sun go down in night upon a nation of serfs while you stand idly by? Look into the faces of the poor and the oppressed and answer. Friends, you must help this great reform with your sympathy, your strong arm and your purse. Are you not willing to make this small sacrifice to enjoy this great boon of your birthright? Stand fast, and in 1892 the old moss-back politicians can write over the entrance to their wigwags the inscription that Dante saw written over the gates of hell: "All hope abandon, ye who enter in."

MARION CANNON.

Pres. Cal. S. F. A. & I. U.

### What Is the Matter?

[Contributed by JAMES MORGAN.]

Whatever may be the primary cause of the unrest that is everywhere manifest in the minds of the American people, there is no mistaking the fact that popular opinion locates the trouble in the steadily growing power and influence that capital, in vast aggregations, is exerting to degrade labor, and make the laborer but a tool in working out the selfish schemes of the wealthy—a mere slave to do the bidding, and receive with thankfulness the pittance grudgingly doled out to him by the millionaire, the corporation, the syndicate or the trust. As a means of grinding down the masses, and making them the helpless captives of the money power, systematic plans have worked for years, by the financial kings to so reduce the volume of the currency as to make it possible for them to manipulate and control it. This was accomplished by the demonetization of silver, leaving only gold and National bank notes in circulation, with these latter liable to be largely withdrawn whenever the interests of the money kings could be served thereby. This scheme has been carried out so completely that it is now possible for this syndicate of bankers and capitalists to control the volume of the currency, and thereby to control the price of labor and of the products of labor of all kinds. By means of combinations, and unions and trusts, manufacturers have in a measure protected themselves from the evil effects of this manipulation of the money of the country by the soulless money power; but only in a measure, as the continually occurring failures of old and well-established houses give proof. But the

#### Farmers Over Our Vast Country.

Isolated, unorganized, working single-handed and alone, have fallen an easy prey, as have also the laborers in all departments, who have been purchasing consumers of farm products.

The article of bread may be made to illustrate the whole list. The wheat crop, of which the bread for the coming year is to be made, is harvested and ready for storage by Oct. 1st. It is a vast crop, representing a vast amount of labor, consequently a vast amount of money, and must be carried by some one along through the year, or for an average of six months. There comes a stringency in the money market just then—from natural causes the papers say, but the producer must have money to pay his bills, for everybody feels the pressure and demands are urgent. He cannot hold his crop. The consumer needs it, or will need it, but he too feels "the stringency in the money market" and cannot secure his year's supply, although it is coming on to the market dirt cheap. But luckily for all parties, just now appears some syndicate, some especial friend of the "Money King," and kindly consents to buy the wheat and give the producer the money he must have. But how small the pittance! How the bright dreams that have cheered and buoyed him in his hours of toil all fade away! He has labored hard; he has produced a fine crop, which, if sold at a fair price, would have lifted him out of debt and given him and his loved ones some of the comforts, if not the lux-



J. M. MOORE, STATE BUSINESS MANAGER, F. A. & I. U.

uries, of life; but the stringency in the money market that happens to come just then

#### Has Left Him Nothing

To show for his year of toil but a worn body and a crushed spirit. A few months pass. The last producer has been forced to yield his precious product for a pittance of currency, and money becomes easier. The wheat market brightens up; the curbstone speculators smell the battle from afar, and fly to the bankers and money-lenders for money. They are accommodated at two, three, four or five per cent per month, and they rush into the fray. Some make, many break; but it matters little. It is a mad gambling carnival that is a disgrace to our civilization in the nineteenth century.

But wheat goes up, up, up, and the laboring consumer pays enormous prices for that which brought the laboring producer so small a pittance. And what of all this? Merely a sample case of how a handful of moneyed men, banks, corporations, etc., can sit behind their counters in their fine offices and wring the life-blood from the laboring masses. And why? Because as our financial system is at present, they can entirely control the money of the country. Is it strange that the conviction is so rapidly gaining ground that the power of controlling the volume of the currency should be taken from individuals or banks or corporations that can have any private interest in the matter, and be held only by the general government—a power which is of the people, by the people, and should be for the people.

#### Tulare County Alliance.

The Alliance meeting was presided over by I. N. Wright who stated that the speaker who was expected to address them had failed to arrive and they would have to depend on other gentlemen present. N. W. Motheral was called upon and made a ringing speech on behalf of the farmers. He believed that the time was at hand when the farmers were determined to free themselves from their shackles. He fought once on the wrong side of a great cause and was licked but he was on the winning side this time. L. C. Hawley of Hanford, Mr. Hewitt and J. W. Mackie made short and pointed speeches, the latter gentleman taking a hopeful view of the farmer's future. The meeting was characterized by a spirit of enthusiasm and the speakers were frequently applauded.—*Tulare Register*, April 3.

#### The Alliance in Contra Costa County.

M. M. Tousey in *Antioch Ledger*: The first regular quarterly meeting of the county Alliance was full of interest, and the feeling manifested was one of genuine enthusiasm. People may differ with them in regard to the measures they advocate, but no thoughtful man or woman can question their earnestness or the urgent need of some reform in the relations of the industrial classes to each other and to the law-making branch of the government. Farmers, and work-people generally, are learning the lesson of self-reliance, and are quietly doing whatever they have in hand, rather than publishing their intentions to the world, or counseling with those who are opposed to their views, and would discourage them in every way possible. Antioch may be a much neglected town, and the farming community of which it is the center may not have received the atten-

tion it deserves at the hands of the caterers for popular favor, but the Alliance is not guilty of any fault in this respect, however it may have been made to appear by those who did not wish them success. The first Organizer who came this way had to go home suddenly, on account of sickness. The next representative who came among us, Burdette Cornell, was here to fill every appointment, and failed once to meet his engagements in every part of the county, and that on account of a heavy and prolonged rain-storm. In spite of every discouragement he has succeeded in organizing seven subordinate Alliances, besides the County Alliance, and is now at work in Alameda county.

#### J. M. Moore, State Business Agent.

Bro. Moore, State business agent of the F. A. and I. U., was born in Nova Scotia in 1848. When only 13 years of age, he entered a store as a clerk, in which capacity he continued up to the time he was 24 years of age, when in company with a friend he came to California. On arriving in this State, the avenues to his chosen occupation appeared to be filled, consequently he was forced into other pursuits. Dairying appearing to be the better adapted to his liking, he went into Solano county and engaged in that business up to 1875, when he sold out his interests and moved into Tulare county, settling near Hanford. At that time irrigation was in its infancy, and as it became better understood, under discussion and from actual tests, immigration set toward irrigation districts and lands appreciated in value. Since living in Tulare county, Bro. Moore has engaged in wheat raising, general farming and running harvest machinery. He has always taken a lively interest in irrigation and takes great pleasure in the knowledge that his many predictions of great benefits that would flow from its successful introduction have been more than fulfilled.

Bro. Moore enjoys an enviable reputation as a conscientious and thorough business man. It is confidently expected that as he becomes more fully posted in the business transactions in this city, he will give even better satisfaction than now. So far as we are able to learn, he gives entire satisfaction by his close buying of all merchandise, machinery, etc., required and also in the good prices realized for farm products sent him to be sold.

He was the successful Master of Tulare Grange for the past two years. He is well known and held in high esteem as a solid and reliable man by the farming and industrial community of Tulare county. As we have said before, we believe him to be a man every way worthy of the confidence of the Order and the tradesmen with whom he has to deal.

#### A New Alliance in Orange County.

I organized Laguna Alliance, No. 14, at Arch Beach, last night, with H. E. Olds President and Fred E. Stocking Secretary. There are several good Alliance workers in that district, notably Bro. H. S. Goff, who is ready to take hold and push all reforms for humanity. Southern California is now becoming pretty well organized. The great work now begins—that of education. Let every member of the Alliance take and carefully read one or more representative Alliance papers.

D. EDSON SMITH, Lecturer.

Hope Ranch, Santa Ana, April 2.

### Spirit of the Press.

The Legislature has adjourned and gone home, unshriven and unblessed. It is a genuine relief to the people that the session is at last over. It was not only wasteful and extravagant, but scandals sprang up at every turn like Jonah's gourd. No reforms were instituted or economies introduced. Instead of doing away with unnecessary commissions and abolishing sinecures, new State Boards were created and new berths made for political parasites. All the old pap-smoking institutions have been retained and a new crop brought into being to eat up taxes.—*Tulare County Times*.

Bledsoe's course in relation to the Bruner scandal has been highly creditable. Far from injuring his party by his condemnation of Bruner, Bledsoe is entitled to the thanks and praise of good Republicans throughout the State. The days of the party will have become numbered when willingness to conceal corruption becomes its test of allegiance.—*Marysville Appeal*.

So Claus Spreckels and the Havemeyers have united their forces and divided the kingdom. In other words, Spreckels and the Havemeyers have formed a combination in the sugar-refining business, and hereafter there will be a single sugar monopoly, whose operations will be co-extensive with the nation. The details of the terms of the combine have not been made public, but it is known that the territory—that is, the nation—is to be divided, and each party to the combine is to keep within his own field. The Pacific Coast will fall within the Spreckels empire, and all of us will continue to pay tribute to the same old feudal lord.—*Fresno Examiner*.

"Hayseed legislators" and "rural legislators" are pet names applied to representatives from among the people now occupying seats lately "owned" by demagogues and slysters, until dispossessed at the late elections. And it hurts the latter fearfully, and that portion of the press which "stands in" with the boodle and spoils-takers stands back and manufactures frightful names against the legislators, as "hayseeds," etc., like the kid who has been knocked out threatens his big brother or pugilistic parent. Some people may be highly educated, but they can be proportionately criminal; the brilliancy and talent are all right if they are directed by virtue and honor.—*Coquille (Oregon) Herald*.

SUPPOSE that two dozen legislators have voted for a certain man for United States Senator. Does it not seem a little strange, if he concludes to withdraw from the race that he can swing them almost to a man to such person as he may designate as his choice for the position? Does it not appear more than probable that some of these intelligent beings would have an opinion of their own concerning who would be the best men left after their first choice was taken from them? Does not swinging at the impulse and dictation of one man seem rather the part of a machine than that of men of intellect and ideas?—*Stockton Mail*.

It is no wonder that a Farmers' Alliance has sprung up to check the mercenary greed of our present law-makers. Something must be done to check the plunderers of our present treasuries, or both the State and the nation will be bankrupt in less than ten years. If the National Government goes on spending a thousand million dollars a year, how long will the public money last? The last two sessions of Congress made the most open and daring of all the raids upon the public treasury. They devised all and every scheme possible to deplete the treasury of the nation, and our last Legislature copied the example as far as the funds in the State treasury would admit. With a debt of fifteen hundred million dollars it would be necessary to exercise the strictest economy until that debt is paid. We know not what may happen nor how soon another war may be forced upon us. Let the aim be to pay our debts while in the enjoyment of peace.—*Oakdale Leader*.

We had the pleasure of a half-hour talk with a Deputy Organizer of the State Alliance, last evening, and in the conversation learned much about the progress of the Order in this State. Since April 11, 1890, the membership has grown to a little over 22,000, and now, since the had showing made by the Legislature, he says the membership is rapidly growing in all parts of the State. It is believed that by the date of the next general election in 1893, the membership will reach a number sufficient to defeat the election of men to the next Legislature who have made such a bad record, and be able to accomplish some good for the farmers.—*Marysville Democrat*.

THE FARMERS ALLIANCE.—We hear that the Farmers' Alliance meeting at Carpenteria was a decided success, both in point of numbers and interest manifested. The Alliance movement appears to be full of life and vim throughout the country, and it promises to become a movement of vast and far-reaching importance. The *Star* feels a strong sympathy for any and all elements in our country that earn their bread by the sweat of the brow, never having ourselves ate any bread otherwise obtained; and, therefore, believing this organization has for its object the good and welfare of the laboring people of America, we shall, at all times, aim to give it our moral support, ever wishing it God speed, so long as it shall keep itself from falling into the hands of demagogues and political office-hunters.—*Santa Barbara Star*.





### The Blind Spinner.

Like a blind spinner in the sun,  
I tread my days;  
I know that all the threads will run  
Appointed ways;  
I know each day will bring its task,  
And, being blind, no more I ask.  
I do not know the use or name  
Of that I spin;  
I only know that some one came,  
And laid within  
My hand the thread, and said: "Since you  
Are blind but one thing you can do."  
Sometimes the threads so rough and fast  
And tangled fly,  
I know wild storms are sweeping past  
And fear that I  
Shall fall; but dare not try to find  
A safer place, since I am blind.  
I know not why, but I am sure  
That tint and place,  
In some great fabric to endure  
Past time and race,  
My threads will have; so from the first,  
Though blind, I never felt accursed.  
I think, perhaps, this trust has sprung  
From one short word  
Said over me when I was young—  
So young and heard  
It, knowing not that God's name signed  
My brow and sealed me his, though blind.  
But whether this be seal or sign  
Within, without,  
It matters not. The bond divine  
I never doubt.  
I know he set me here, and still,  
And glad, and blind, I wait his will.  
But listen, listen, day by day,  
To hear their tread  
Who bear the finished web away,  
And cut the thread,  
And bring God's message in the sun,  
"Thou poor blind spinner, work is done."  
—Helen Hunt Jackson.

### Women in California Horticulture.

Mrs. Mary L. Givens recently read an essay at the San Diego County Horticultural Convention entitled "Women in Horticulture." It was an account of her personal experience and that of her sister, Mrs. Maude. These two ladies, who were raised in luxury, started a five-acre fruit ranch at Chula Vista two or three years ago and are making a marked success of the same. What these ladies are doing, says the National City Record, should put to shame every fellow who is "waiting for something to turn up."

Woman's work, from the standpoint of a Californian and frontiers-woman, possesses a different meaning from that we learned in infancy, as we sat beside the wide, generous fire-side, "listening at the mother's knee," watching the patient, tireless fingers as they swiftly and unerringly guided the shining needles through the maze of stitches, round after round, while the stockings for our chubby feet grew into form and beauty; or, as she stitched the patches over yawning rents in our clothing, increased by careless contact with every point set by the "enemy of souls" to betray unwary children into difficulty. Those were days when we believed a "woman's work" consisted in the graceful accomplishments of knowing the needs of husband, home and babies; foreseeing and providing for their needs and happiness. Much time was consumed in "learning to brooder the neat little coats—to dream and to doat." Even then the well-nigh threadbare adage was oft repeated:

"A man's work is from sun to sun,  
While a woman's work is never done."

The wildest dreamer, in those days, could scarcely have conceived the possibilities of the daughters of these homes—children trained to lives of luxury and ease—going earnestly and cheerfully into "woman's work" in its broadest sense, as we understand it here in our own flower-bedecked and fruit-laden California. There is no avenue closed to us here. Indeed, from the work of a Samaritan to the most homely drudgery of household and ranch, women are permitted to bear their part; and I may truthfully add, they are helmsmen for man. God's generous gifts to us, of blue skies, balmy air and the most fertile soil, have induced some of us to make an attempt to wrest from man his claim, so long and jealously guarded, of alone being able to cause the earth to open up her great treasure-house.

"Experience being the school where we all learn wisdom" in these matters, I must confess in the outset to a very limited share of knowledge, having only the meager supply gained in a year of blind groping—learning more through my failures than my success. However, I will say women are quite as capable and successful, and even more so, than men in some branches of floriculture and horticulture, the chief activ-

ities of this section of the State, i. e., so long as she possesses the physical power and moral courage to wield a hoe or spade or trundle a wheelbarrow. To successfully carry on a ranch, a woman must lay aside the conventionalities of life and take to the field in earnest. "Eternal vigilance" is the price of all that grows. Many ladies have succeeded beyond all expectation in floriculture. Some will exclaim, "This is a land of flowers. Why cannot all succeed?"

True it is our soil is fertile, our climate never too severe for any semi-tropical plants, and the "sunny skies that bend above us" will win over a sickly vegetation into newness of life if only half a chance is accorded it.

One necessary thing has been withheld by our hountiful Giver of All Good, and that is the fresh flowing water. If we could turn the New England brooks and rills across our meads and foothills, we might easily find Eden's beauty repeated here in this land of our adoption. However, where Nature has provided a meager portion man's ingenuity and thrift have met the need and the difficulty has been overcome, at least for us, who are blessed by the Sweetwater system.

A proper and judicious application of water, however, must be made or our condition is scarcely beautiful. Those who first came here from the well-watered Eastern and Middle States hail water as king, and open every hydrant and pipe to pour out a sparkling draught for the thirsty soil. Everything must be soaked, and they fondly dream of success which shall never be.

The sun will soon bake a crust over the surface, and so effectually imprison the seeds and tender shoots that life or growth will be absolutely impossible. I find in our mesa soil, for almost all small plants, it is quite necessary to prepare the soil so as to prevent this baking or crusting, and then in irrigating allow the water to trickle so slowly that it will be absorbed.

We can take a lesson here from Mother Nature, and see how her most tender, delicate flowers are strewn beside streams or in shady nooks where the earth is always moist.

In the scientific world, when great results are accomplished, all effort is thrown into one channel and a "specialist" is the successful man. Having this lesson before me, and taking an exceedingly practical view of life as I do, I passed by the attractions and fascinations of floriculture and have given all my efforts to the useful, preferring the glory of the breadwinner to that of the dilettante.

It would require "the pen of a ready writer" to do the smallest justice to my subject, and at such time and place as this, only occasional points can be touched upon.

Of course, it goes without saying, that soil, altitude and exposure are all to be considered, and no rule can be given by which all may be guided.

My experience has been on the mesa of Chula Vista alone, where there is a heavy alluvial soil, with an underlying stratum of adobe. At their own sweet will, the four winds of heaven play at hide and seek over every foot of the premises, as no hedge or wind-brake has yet developed sufficiently for protection.

I warn all beginners that the cardinal virtue of patience, with ceaseless care, must be kept constantly in view, or success will not crown one effort. First of all, my interest went out to seedbeds and nursery stock. From a few sacks of oranges, seeds enough were procured to make an experiment.

The bed was constructed by simply inclosing the necessary space with narrow boards, to prevent washing. The natural soil was soaked to a good depth, and then pulverized. The seeds were planted in drilled lines, which were about two inches apart, the seeds almost touching. A light covering of earth was spread over them, and then an additional covering of sand, about one inch in depth; this holds the moisture and prevents the soil from baking. The beds should never be allowed to dry, as this is injurious, if not fatal, to the germs. For two months, I consider it necessary to keep them in this condition.

My experience taught me this was not the wisest plan.

I should now advise first plowing or spading the soil from 15 to 18 inches in depth. When thoroughly pulverized, plant the seeds in drills six inches apart and the seeds not nearer than one inch; cover as before. Instead of sprinkling, allow the water to seep through the spaces between the lines of seeds. Never make the bed too slope enough to wash. By all means avoid the use of manure in the construction of seedbeds, as it breeds worms which are destructive to young plants.

However, when the seeds are well up, a dressing of well-rotted manure, applied in the spaces between the drills will be found advantageous. I have abandoned the idea of boards to inclose the bed, as I find the reflection of the sun from them burns the plants.

A light covering of cheese-cloth, fastened to standards about two feet or less above the ground, is a very great protection against the burning rays of the noon-sun; and can be removed when the plants are strong enough to resist the heat; and can be again utilized when there is danger of frost, and will afford ample protection.

I have seen some beds which gave promise of splendid growth suddenly show signs of disease; the leaves curling, turning yellow and after a time the plant would wither and die. This came of an injudicious selection of

soil, where the adobe laid too near the surface, or was permeated with alkali. Large trees will thrive under these conditions, but the struggle for life which the young plant makes is short, and it is seldom the victor. I have also seen a similar condition induced by a too generous supply of leaf mould and manure in the seed beds, which forced the tops, but gave no root. Orange seeds planted in May can stand without removal till the next spring.

The surest and best method for transplanting, is to soak the bed, and in this way the plants can be pulled up, without much injury to the rootlets. After cutting off the tap root, and all that are injured, pack the whole into a box of damp sand, of course, leaving the tops exposed—set the box into a cool, shaded place, where the sun's rays cannot reach them, and let them stand for three weeks, till the broken roots callus, and then transplant in nursery rows one by three feet apart. They will at once begin a vigorous growth, as they cannot do if transplanted immediately, and exposed to the heat of the sun.

I use fertilizers generously on my nursery stock, placing it in furrows on each side of the trees, but not nearer than six inches to them. In this furrow I irrigate, at least once a week, during the rainless season, but, of course, one should be guided, always, by the quality of soil, and its facilities for drainage. In my experience, this rule has applied admirably to oranges, guavas, grape fruit and loquats.

I have never found that too much cultivation could be given. I use for a cultivator the Garden Queen, and then, with the hoe, break and turn the soil around each separate tree, never allowing it to bake or harden after an irrigation.

In strawberries, I was richly rewarded for my efforts. In November of '90, I planted in rows eighteen inches by one foot apart 1,500 plants of a new seedling variety, which I christened Pride of Chula Vista. Twice a week the fruit was gathered, and immediately after each gathering, I soaked the ground thoroughly, never allowing the bed to dry entirely. The ground was never cultivated. When weeds were to be removed they were pulled up. This fruit was large, bright red, delicious in flavor and the aroma indescribable. We measured berries seven and one-fourth inches in circumference. From February 1st to September 1st there was an abundance of fruit, but I then allowed runners to start, and from this small beginning there are now about 30,000 plants.

Budding comes legitimately under the head of "woman's work." So much might he said here, that I scarcely feel able to touch upon the subject. I cannot refrain from a few practical hints, however. Buds should be taken from the new growth, after it has hardened and before the tip of the branch shows signs of new growth. After the leaves are trimmed away, the twigs should be rolled in a wet cloth and hurried for a week or ten days. Any not wisely selected will then wither and show signs of immaturity in time to prevent a loss of labor in planting them; also, the leaf-stem will drop readily. Such buds knit more readily than fresh ones. If one desires to store them, they can then be sealed in a glass, can or bottle and kept in a dark place for months before using them. Much is said in favor of dormant buds, but, unless the tree is growing the bud will die. To secure an even growth, I prefer spring budding. After the bud is well started, if the parent stem is bent down, and held to the ground by a forked stick, bent at a sharp right angle, just above the bud, but not broken, all the strength will be taken by the bud, and double results will be observed.

I have felt great interest of late in root graft, but am totally without experience.

If only our days could be lengthened into 36 hours, and strength given us to "do with our might what our hands find to do," by sowing our seeds, transplanting, grafting, budding, pruning and gathering, what homes of beauty and abundance would be ours—where the year is a ceaseless cycle of fruit and flowers. For, especially in these lines, a woman's quick eye, deft fingers and love of the beautiful, leads her to work. But alas for the short days, from the peep to the sleep of sun!

"For when one task is finished, something's found,  
Awaiting a beginning, the year around."

Whether it be  
To draw the tea,  
Or bake the bread,  
Or make the bed,  
Or ply the broom,  
Or dust the room.

And it will be so till we are ushered into the haven of rest, where the things of time and sense are not.

Chula Vista, Cal.

DANGER EVERYWHERE.—Scientific and medical investigation seems to prove that the human family is literally surrounded with danger from every direction. Not only the air we breathe, the water we drink, the food we consume, but even our very pets, as well, are all fruitful sources of disease and death. The latest reports from eminent French authority estimate that cats are responsible for 30 per cent of the cases of common contagious diseases.

"HYPNOTISM is a great thing. I can hypnotize any one, and what I desire the subject to do he does." "See here Professor," said the little tailor, "I'll give you 10 per cent on all the collections you can hypnotize out of my customers."

### A Taste for Reading.

[Written for the RURAL PRESS by MAUDE S. PRASLER.]

Variety of work requires variety of recreation. Many occupations engage the mind while the body is inactive. Those who have such occupation should seek recreation in muscular exercises. Other employments require the use of the muscles more than the brain. Persons engaged in such employments should, during their hours of recreation, exercise their minds. One source always available is good reading matter.

The taste for good reading is usually acquired. It is the result of education, of patient training. We have no right to demand that a child love good books unless he has been effectually aided to this liking by teachers or parents. We sometimes hear people attribute "the lack of love for good reading to a natural weakness or depravity of the child, when it is really the weakness or neglect of those whose business it was to establish the habit and create the taste for good reading.

A child must learn to love good reading by practice in good reading. There are many ways in which he can be made or tempted to read good books until he does enjoy them.

The best way to create a love for books is to begin early to know them; there is so much in force of habit. There should be in every home as many good books as it is possible to procure, and each one should be to the little children as an old family friend, whom they might love first for their parents' sake, and later, when they have grown to know them, for their own sake.

Reading should never be made a task. The best in books, as in people, is found only when we cultivate them with loving sympathy. The books of Dickens, with their pleadings for civil reform; of Thackeray, with their revelations of high, noble life; of Charlotte Bronte, with their plea for the equality of man and woman; and those of George Eliot, our greatest realist, will live because they have each a great purpose and a pure style, for a great purpose alone is not sufficient.

To cultivate in a child a love for the best books is to strengthen character, to develop intellect and to nourish and beautify the soul. Young children may be gradually led up to an appreciation of higher literature, by the means of such steps as are afforded by the few really good children's magazines and periodicals. Most of these are illustrated, obtaining a child's eye at once, and rousing his interest by the curiosity he is sure to feel about the meaning of the pictures.

It would be impossible to lay down any fixed course for one to pursue in training a child's taste for good reading; equally impracticable to estimate the great importance of so directing the inclination.

### The World's Fair.

The women's building at the World's Fair, will be built from designs prepared by Miss Sophia G. Hayden, of Boston. A prize competition for designs was invited, and Miss Hayden carried off the first prize of \$1,000, over 12 others who entered the contest. Miss Lois L. Howe, of Boston, was awarded the second prize of \$500, and Miss Laura Hay, of Chicago, the third of \$250. Mrs. Potter Palmer, President of the Board of Lady Managers made the awards, after the different designs had been carefully examined and dissonned by Chief of Construction Burnham, and other members of the Board of Architects.

Miss Hayden's designs provide for a building 200 by 400 feet in dimensions, of Italian renaissance style, with colonades broken by center and end pavilions. It will be constructed chiefly of iron and steel, and show but little ornamentation except at the main entrance. It will stand on one of the most conspicuous sites in Jackson park, being opposite the eastern end of Midway Plaisance, and close to the main lagoon. The building will cost \$200,000. By reason of the use to which it will be put, the woman's building will certainly be one of the most notable structures at the Exposition. As soon as Miss Hayden's design was selected, Chief of Construction Burnham, telegraphed to her to come to Chicago at once, and elaborate it so that specifications can be prepared for the erection of the building: She will receive her expenses and be paid for her work while in Chicago. Miss Hayden graduated with honors from a four years course at the Massachusetts Institute of Technology, and has since done some excellent work in the employ of Boston architects.

A BARRISTER, who is shortly going to enter the holy estate of matrimony was seen scribbling on his brief the other day in Court. Later in the day his clerk, happening to glance at the writing read these old lines—"Fee simple or a simple fee, And all the fees entail, Are nothing when compared to thee, Thou best of fees—female."

HE. (ardently.)—I love you truly, Miss Priggly, more than words can tell. May I hope that my love is returned?

SHE.—I can't—

HE.—Oh, well, perhaps you don't like me as well as I like you. You see I am more easily suited than you are.



Preparing for Baby.

Among the mysteries for a little new-comer, nothing is daintier than the baby basket, with its contents ready for the first toilette.

Get a common wicker basket with a cover. Give it two or three coats of enamel paint, cream color would be a pretty shade, using blue silk for the lining. Thinly pad the inside of the basket, then line it nicely with blue silk (or sateen). Cover with plain muslin gathered prettily in puffs, letting a ruffle of rich lace fall over the inside of the basket. The basket being covered and furnished with two inside pockets should then be filled with all the articles necessary for the first dressing. A piece of narrow tape, a small bottle of vaselline, a number of small squares of soft linen, for the mouth cleansing, a piece of soft silk sponge, square of pure castile soap. These articles will all be required before the clothes, and should have a prominent place in the basket; for the dressing, on top is found a strip of soft flannel, torn from a piece, and turned over only on the edges, for the band; the little shirt of hand-knit wool, two diapers of old soft linen, the pinning blanket, flannel petticoat and the slip, and a square of flannel or a knit blanket to wrap around the little one when it is carried about. A nice home made baby powder is of cornstarch, to which a small quantity of pulverized orris root is added; this is the purest and best. A case to hold safety pins is made as follows: A strip of china silk nine inches long and five wide, must have an inner lining of crinoline to give it the required stiffness, and another lining of some pretty contrasting shade of silk. Leaves cut out of white flannel, and buttonholed with silk, should be fastened by their backs to the inside of this strip about three inches from the end. This should be the back of the case which should be bent over here, and have a bow of baby ribbon on the outside. The crinoline will keep it in the desired shape. Three inches farther, the strip should be turned over again, and the remainder left to form a part similar to the flap of a pocket hook. An apron made of cotton flannel with the furry side out is nice for the nurse or mother to put on, as the little one when taken from the bath can be rolled up in it, and answers at the same time the purpose of a soft towel. For wiping of head and face an old soft white silk handkerchief is a good thing. Little wrappers for baby to wear after the bath in the morning can be easily made at home, costing but a trifle. Cut them out of cheese cloth, princess shape. A layer of wadding should be tacked between two of cheese cloth, and fastened at intervals of a few inches by knots of worsted, as in a comfortable. The princess pattern is then laid on and the wrapper cut out, the seams felled on the inside and the edges finished by a buttonhole stitch of the worsted. A pretty robe for the baby carriage can be made from dotted white silk. The dots should be worked with a solid over and over stitch to resemble the centre of a daisy, using yellow fillo-floss for the working. Now make petals of white silk, and lo! the dots are transformed into beautiful daisies. The petals are made of one long double stitch, caught down at the end with a thick strand of white fillo-floss. If wished, the basket can be mounted on three wooden standards, after the fashion of the gipsy tables which are made from broom handles. Of course the standards are enamelled to match the color of basket. Add lastly, and for a finish, a large bow of wide blue ribbon, to the top of the cover. Ladies who work for Exchanges can take old furniture and after sand-papering thoroughly add two or three coats of enamel paint; then upholster with plush or brocades. Or use the new furniture before it is painted at all.—*Eva M. Niles in Transcript Monthly.*

Chaff.

POMONA Times: Gall is gall, but when a set of men try to patent the moonlight in which to fight scalebugs, they develop an immensity of oheck which is rather ahead of the usual style of things.

THE only time the average woman never talks back is when she accepts your seat in a street car.

"WHEN you were stealing the cake, my young friend, what thought did you have?" enquired a friend. "I thought nobody was looking," replied little Johnnie.

ROBINSON bates his mother-in-law cordially, and mamma-in-law returns the compliment. "Confess that you wish me 100 fathoms under ground!" she said to him the other day. "Oh no six feet would be quite enough," gloomily returned Robinson.

MISTRESS—"Mary, what are you doing with that clock?" Mary, (with the servants' bedroom clock under her arm)—Please, mum, O'm takin' it to the watchmaker's. It's all out av order, mum. I very morning at foive o'clock it goes all to paces, and makes such a racket Ol can't elape.

BLACK.—So you've been abroad. How did you like Ireland.

WHITE.—Oh you wouldn't know it from some parts of America.

JUDGE—"Prisoner, are you married?" Prisoner—"No, yer Honor; those scratches on my face came from stumbling over a barbed wire fence in the dark."

YOUNG FOLKS' COLUMN.

Myra's Revenge.

(Written by MARTHA T. TYLER.)

Myra Miller did not like to visit her Aunt Wedderkin, but sometimes she was obliged to do so. Her objections to her aunt were innumerable, but the principal difficulty lay in the fact that Mrs. Wedderkin expected children always to behave exactly as grown people behaved and to like only what was exactly good for them.

Myra was a warm-hearted, impulsive child with a great fund of mischief at command, and a quick little temper of her own, so that Aunt Wedderkin's peculiarities were a source of much annoyance to her.

It is true that the widow was really fond of Myra and desired to make the little girl happy, but perhaps her nature was such that she had never been a child herself, or she had forgotten all about that period of her own life, for whenever she and her niece were together, they invariably succeeded in making each other wretched. Myra was always at her naughtiest with Aunt Wedderkin, and Aunt Wedderkin, in her anxiety to have the child become the pink of propriety, exaggerated everything she did that was not precisely in accordance with the lady's ideas of decorum.

The Millers lived in the city. They had a sweet cottage home surrounded by a gay little garden, and as a rule there were no happier children than Myra and her baby sister.

Mr. Miller's circumstances were only moderate, and it was natural that his rich widowed aunt should take an interest in his family.

Mrs. Wedderkin had a large, comfortable place on the outskirts of a country town, and once a year in the summer time, the reluctant Myra was sent to spend several weeks with her.

Myra loved the country. She liked to run about under the broad shade of the oak trees, or to roll on the grass, and it would have delighted her to assist Hannah, the neat dairy-maid, in churning the cream, or to have ridden in the wagon with the butter and eggs, when honest John drove these supplies to the village market, but none of these amusements were permitted at Aunt Wedderkin's.

It was not proper for little girls to move around too violently, and even if it had been otherwise allowable, it would have spoiled the smooth lawns to roll over them. As to the dairy, it made Mrs. Wedderkin nervous to see the child about. She would be sure to step into a bowl of milk or overturn the churn, and as to her niece's riding in the market wagon with the dairy produce—absocking!

So it was that Myra generally arrived at Aunt Wedderkin's oppressed by a sense of coming misery, and was returned home by her indignant relative in a state of dire disgrace.

Aunt Wedderkin's house was two stories high, and over the living rooms stretched a broad, dim garret, lighted only by one small, front window. It was a dusty, cobwebby place, this last, filled with odd pieces of time-worn furniture, old chests and a few empty picture frames.

The rest of the house was pleasant enough. Large, airy rooms, quaintly but handsomely furnished, where Myra thought she might have been very much contented but for Aunt Wedderkin.

Myra was a pretty child and it was not without satisfaction that her aunt noted her rosy cheeks and sparkling blue eyes on the morning of her arrival at the farmhouse, one day in June, but unfortunately for Aunt Wedderkin's peace of mind, and greatly to the delight of Myra, she had the prospect of a playmate during her visit this year, and it was that that made her color uncommonly brilliant and her eyes brighter than usual as she lifted her head to receive her aunt's kiss of welcome. She had seen as she came up the road in the buggy, a girl of her own age swinging on the gate of the place just below Aunt Wedderkin's. An old couple had lived there heretofore, but as Myra discovered afterward the property had been sold to the father of the little lady on the gate. There were also two small boys among the new comers, and as the Wilsons were really nice people, Aunt Wedderkin could not object to an association between the children, except upon general principles. She seemed to think it not at all natural that young people should desire other than grown up company.

An intimacy soon existed between Myra and her little neighbors, and as she did not venture without special permission to bring a pair of mischievous boys within the sacred precincts of her aunt's garden, she was absent herself most of the time, and in this way gave the old lady much less trouble than usual. No wonder that she found the Wilsons' home pleasanter than Aunt Wedderkin's, for Mrs. Wilson was an amiable, indulgent parent, and Sallie and the boys did very much as they pleased.

"Myra," said Sallie, one morning when the quartet had assembled under the large elm tree in the Wilson's front yard: "Let's get up a picnic."

"I have never been to a picnic," answered Myra.

"I have," said Sallie, "and its lot's of fun. You have a big basket, you know, packed with goodies, and you find a place way off in the

woods somewhere, and then you eat everything up that's in the basket."

"Aunt Wedderkin wouldn't let me," mused Myra. "She would say it was all nonsense to take your meals in the woods when you might have them more comfortably at home."

"But it's not a regular meal," explained Sallie, "it's pies and cake and candy and all that—"

"And pickles and—chewing gum?" queried Myra. "Well, I have some money, and the boys can buy them all at the store, and we won't ask Aunt Wedderkin anything about it—but it will be naughty," she added, with a sudden qualm of conscience.

However, the boys were despatched to the village store, where they invested in half a pound of peppermint drops, a dozen hard ginger bread horses, a jar of pickles, and an apple pie. Sallie found an old basket into which she packed the sweetmeats, and by ten o'clock the picnickers were off for the woods.

When Myra failed to return for dinner at three in the afternoon, Mrs. Wedderkin began to be uneasy and sent Hannah over to the Wilsons' to make inquiry. The girl returned looking a little bit frightened. Miss Myra and the other children were not to be found. Mr. Wilson had gone out in the wagon to look for them. They had been seen by one of the neighbors walking in the direction of the woods a few hours before. Mrs. Wilson had not informed Mrs. Wedderkin, because she thought it would alarm her needlessly. Mr. Wilson would be sure to find the children.

But Aunt Wedderkin was not to be so easily quieted.

"Was there ever such a naughty child!" she exclaimed, "and what will my nephew say should anything happen to her? I will punish her severely when she is found; but suppose she should not be found," and so on, until the poor old lady had worked herself up into a fever of excitement.

Meantime the children wandered a long distance from home. The morning was so clear and lovely and the woods so cool and monotonous that they did not realize how far they had come and how tired they were until they began to be hungry.

"Don't you think it's time for the picnic?" asked Myra at last.

The others thought they had now arrived at a good stopping place, so they all sat down on the grass and Sallie opened the basket.

Myra was surprised to find that the sweeties were not half so nice as she expected them to be, in spite of her appetite, and would have given all of her share for an equal supply of Aunt Wedderkin's beautiful bread and butter and a glass of milk. Oh how thirsty she was! and there was not a drop of water to be had. If all picnics were like this, she thought she had enough of them. Sallie probably reasoned the same way, for when they had rested awhile she proposed in rather a faint voice that, as the lunch was disposed of, perhaps they had better go home.

This, however, was easier said than done. The trees all looked so much alike, it was impossible to decide which direction to take, and after moving about aimlessly for an hour, Myra declared she was too tired to go a step farther, and all four sat down again in despair.

It was about sunset when Mr. Wilson at last discovered the half-famished and wholly frightened group. He crowded them into the wagon without a word, and in a short while Myra was delivered into the hands of her exasperated relative. Mrs. Wedderkin, however, saw that it was no time to scold the child. She merely said, "Myra, I shall punish you to-morrow," and hurried her charge off to supper and to bed.

Next morning Myra and the old lady breakfasted together in profound silence. As soon as admissible, the little girl put on her sunbonnet and shawl as usual, and was hastening out of the house, hoping to escape the execution of Aunt Wedderkin's quondam threat, when that lady sternly ordered her to stop.

Grasping the small culprit by the arm, Mrs. Wedderkin pulled her along the hall up two flights of stairs into the dismal garret.

"Here," she said, "you are to remain all day. You will have time to reflect upon your conduct of yesterday, and I hope you will make up your mind to be less willful in future. Hannah will bring you some bread and water at dinner time," and she closed the door after her, turning the key in the lock.

Myra was angry. Never before had she suffered such indignity. She knew she had been naughty, and she was sorry for it, and would have said so, if Aunt Wedderkin had looked less stiff and unrelenting; but to be fed upon bread and water! It was disgraceful. She would do something worse than she had ever done yet.

As her eyes became accustomed to the twilight pervading the garret, Myra began to distinguish the different objects around her. On a pile of boxes at one end she spied the corner of a small pillow, and a brilliant idea seized her. She would frighten Aunt Wedderkin.

Climbing upon an old chair, she reached for the pillow, and having descended with it in her arms, proceeded to divest herself of her white bonnet, her red shawl and her brown dress.

"There!" she exclaimed triumphantly, "I will put my clothes on the pillow and push it out of the window. Aunt Wedderkin always sits on the front porch this time of day and when she sees it fall she will think I have thrown myself out of the window."

"John," called Mrs. Wedderkin from her

corner of the porch, "doesn't that lawn need cutting again?"

"Well, ma'am," answered John—"O Lord, ma'am, what's that?"

Mrs. Wedderkin caught a glimpse of white and a flutter of red and brown, and in another instant the sham Myra lay on the lawn limp and motionless.

Mrs. Wedderkin nearly fainted. John ran up to the fallen object, looked at it narrowly for a moment and then turned it over with his foot.

"Some of that child's trickeries!" he ejaculated, with a gasp of relief. "It's nothing at all, ma'am," he explained to the terrified Mrs. Wedderkin, "there's nobody in the clothes."

When Myra's aunt was brought to an understanding of the situation, she declared that the girl should be sent home before the close of another day.

"For I am actually afraid to punish her further," she said to herself, "no telling what she might not do next."

So Myra's little trunk was packed forthwith and she was forwarded to her parents on the afternoon train. "I can no longer be responsible for her," wrote Mrs. Wedderkin to her nephew.

DOMESTIC ECONOMY

BAKED PUDDING FOR INVALIDS.—One pint of milk, three eggs, sugar to the taste, two tablespoonfuls of flour. Beat the eggs, add the sugar, then the flour, and stir in the milk gradually. Butter a pan, pour in the pudding and bake it.

FISH CROQUETTES.—Any cold cooked fish, chopped fine and mixed with one-third as much hot mashed potato; moisten with a little cream or melted butter, make into balls, roll in beaten eggs, then in crumbs, and fry in hot fat, using a wire basket if you have it.

PUDDING SAUCE.—Mix two tablespoonfuls of corn flour with a dessert-spoonful of cold milk, and stir this into half a pint of boiling milk previously sweetened to taste, and stir it all over the fire till it thickens then flavor to taste with either cinnamon, nutmeg, vanilla or a glass of wine.

EGG DRESSING FOR SALAD.—Three eggs, two tablespoonfuls of mustard, two tablespoonfuls of oil or melted butter, one tablespoonful of sugar, one teaspoonful of salt, one teaspoonful of white pepper, one-half cupful of cream, one-half cupful of vinegar. Cook all to scald, add the oil slowly afterward, and pour over any chopped salad.

RICE CUP PUDDING.—Pick and wash a tea-cupful of rice and boil it in a quart of milk till it is very thick and dry; add to this while it is hot, a pint of rich milk or cream and two ounces of butter. When it is sufficiently cool, add three eggs, well beaten, and sugar to taste. Butter your cups, pour in the mixture, and bake in a moderate oven. Grate nutmeg over the top and serve them with cream.

SPONGE CAKE.—Five eggs, half a pound of loaf sugar, the grated rind and juice of one lemon, a quarter of a pound of flour. Separate the yolks from the whites. Beat the yolks and sugar together until they are very light, then add the whites, after they have been whisked to a dry froth, alternately with the flour. Stir in the lemon, put the mixture in small pans, sift sugar over them and bake them.

LEMON ROLLS.—Take three pounds of flour, one pound of butter, one pound of fine sugar, six eggs, half a pint of milk, quarter ounce of ammonia, and sufficient oil of lemon to flavor; make these ingredients into a dough; roll it out into long, round strips, and cut crosswise, slantingly into diamond shapes; scallop the tops with the back of a knife; bake on greased tins in a hot oven.

APPLE JACK.—Make the same as apple pie, leaving out the sugar and spice; when done take the upper crust from the under one, spreading half the apple on the inside of each crust; sprinkle a handful of sugar and put small pieces of butter on the apple, and lay the upper crust, apple side up, on the under one. Eat while warm, as it is not good when cold.

OMELETTE SOUFFLE.—Break six eggs separately; beat the yolks of four, one teaspoonful of flour, three tablespoonfuls of powdered sugar, a pinch of salt, and flavoring together; beat the whites till stiff; mix all lightly; pour into buttered dish and place in a hot oven. It is done when risen and lightly brown. Roll out on a hot dish, sprinkle with powdered sugar and serve.

LEMON PUDDING.—Pour a quart of boiling milk over 1½ pints of bread crumbs. Put the mixture into a buttered pudding dish, stir in a teaspoonful of salt, cover closely with a plate and let it stand half an hour. At the end of that time, heat into it three eggs and a teaspoonful of lemon extract. Beat it until it is perfectly smooth, and bake it in a hot oven about three-quarters of an hour.

CREAMED ONIONS.—Put a dozen onions in a pan of cool water and take off their skins. Put them in a saucepan of boiling water with a teaspoonful of salt, and boil them until tender. In the meantime melt in a small saucepan a tablespoonful of butter, add a tablespoonful of flour, and when it froths stir in half a pint of milk, stirring until it boils; now drain the onions, pour this sauce over them, and set them where they will only simmer gently until dinner is ready.



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## SAN FRANCISCO:

Saturday, April 18, 1891.

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Harvesting Machinery—Truman, Hooker & Co.  
Harvesting Machinery—Frank Brothers.  
Threshers—Minnesota Thresher Mfg. Co., Oakland.  
Baling Presses—J. F. Hill, Sacramento.  
Mowers—Stanton, Thompson & Co., Sacramento.  
Lawn Mowers—Wiester & Co.  
Grain Saver—J. E. Beach, Routiers.  
Stock Scales—C. A. Lindemao.  
Budding—H. E. V. Pickstone, Santa Clara.  
Norman Stallion—Thalman's Ranch, Chico.

See Advertising Columns.

## The Week.

It is the late rains that make the crop, and they are doing their work well this year. They do not reach far enough up the San Joaquin valley to insure all sections, but they have done better than usual, even in this regard. The Lower San Joaquin, the Sacramento valley and the coast regions generally have been fully moistened, and the warmer weather is bringing forward a splendid growth. It is, of course, too early to describe results, but it is safe to say that so far things are going well, and the outlook is promising.

President Harrison and his group of relatives and friends will find California in its most regal garb. They will return with new ideas of floral wealth if not of coarser pelf. From

their car-windows they will behold the valleys carpeted with the most gorgeous bloom, and at their stopping-places they will be well-nigh suffocated with garden beauties. They will find California beautiful and Californians prosperous and happy.

## The President's Visit.

Only once before has a President of the United States, while still clothed with the insignia of that high position, reached our distance from the National Capital. We have had visits from ex-Presidents and have shown them honors worthy of their public services. President Hayes alone found his way to California while still in office. President Harrison will be the first of all the Presidents to visit the States of Oregon and Washington.

It is but natural that the coming of the chief officer of the republic to our shore should awaken the keenest interest and arouse enthusiasm. Hero worship has prevailed since the beginnings of the race, but in these later days we have come to characterize our deference to those in authority with a wider significance than pertains merely to devotion to the person of the sovereign. We rally to welcome the President as a worthy and honorable citizen, but beyond that our wealth of loyalty and devotion is poured out not upon the man but upon the office which he graces—the headship of our beloved nation. Let not, then, there be any disposition to glorify the coming of President Harrison for fear of sharing the abject devotion which pleased the vanity of the despot. We shall honor Harrison as the embodiment of the American idea and the representative of American greatness. As we believe in that idea and as our patriotism rises into fervor as we contemplate the grandeur of our nation, we cannot refrain from honor to our visiting President. It is but fitting, then, that we show him welcome, hospitality and the fullest goodwill. It is proper that all thought of partisanship should be banished from the popular mind. We honor our institutions and ourselves and we show to the world our faith in them when, as dwellers upon the far-away Pacific, we bestow the highest civic honors upon the visiting chief executive of the nation and demonstrate the fact that though 3000 miles from the nation's heart, the patriotic current is warm and strong and powerful for national unity and harmony.

Various ways will be adopted for signaling California's welcome to President and Mrs. Harrison. At all stopping places, there will be greetings of the most enthusiastic character. In the larger towns there will be parades and receptions. No doubt many unique features will be developed by the local committees. The project proposed in Los Angeles of marshalling the school children in two lines a mile in length, flower-laden, and ready to greet the President, as he passes by, is a most happy one. The City Superintendent of Schools commends the plan.

The sight of the President would surely inspire the children with loyalty. The welcome they could and would give him could but be highly pleasing to him. Let the 7500 children of the public schools be drawn up in two lines, the boys on one side and the girls on the other side of some prominent street, and the President's carriage driven between the lines. From our wealth of flowers each pupil could be supplied with a handful, which might be strewn in front of his carriage on his approach.

This will indeed be a notable welcome, and the sight of such a rising generation will be as forcible a prophecy as could be made of the future of the Pacific Coast. Everywhere let the children see the President, and let their young hearts glow with patriotic ardor. They can learn no better lesson.

The President's party is made up as follows: President and Mrs. Harrison, Mrs. McKee, Mrs. Dimmick, Postmaster-General Wanamaker, Mr. and Mrs. Russell Harrison, Private Secretary Halford, Mr. and Mrs. George W. Boyd, Mr. Tibbett, the President's stenographer, and several representatives of Eastern newspapers who will accompany the party. Hon. J. M. Rusk, Secretary of Agriculture, was at first announced as among the visitors, but he will not come west of Texas, which will be regretted by our agriculturists.

The special train bringing the party is expected to touch California soil at Fort Yuma in the morning of Wednesday, April 22d. It is probable that Governor Markham, Senator Felton and other officials will meet the Presi-

dent at the State line. The following is the itinerary of the California visit:

Arrive at Los Angeles Wednesday, April 22d, at 3 P. M.; arrive at San Diego Thursday, April 23d, at 7:30 A. M.; arrive at Pasadena Thursday, April 23d, at 4:30 P. M.

Leave Los Angeles Friday, April 24th, at 10 A. M.; arrive at Santa Barbara Friday, April 24th, at 2 P. M.

Leave Santa Barbara Friday, April 24th, at 12 o'clock midnight; arrive at San Francisco Saturday, April 25th, at 7:45 P. M.

Sunday, Monday and Tuesday in San Francisco. Leave San Francisco Wednesday, April 29th, at 9 A. M. for Palo Alto.

Leave Palo Alto on evening of Wednesday, April 29th, stop at San Jose and then run through to Santa Cruz.

Leave Santa Cruz Thursday, April 30th, at noon for Monterey; Thursday afternoon and Friday forenoon at Monterey; arrive in Oakland (via San Jose and Niles) Friday afternoon.

Saturday and Sunday in San Francisco.

Leave San Francisco Monday, May 4th, at 2 A. M.; arrive at Sacramento Monday, May 4th, at 6:30 A. M.

Leave Sacramento Monday, May 4th, at 10 A. M., for Portland.

Great preparations are being made for the reception and entertainment of the presidential party in San Francisco. As stated above they will arrive on Saturday and will pass a quiet Sunday.

On Monday there will be a reception to the Governor and staff officers, municipal officers, army and navy officers, consuls, members of the Chamber of Commerce, etc. In the afternoon, from 2 to 5 o'clock, the President will drive through the Park to the Cliff House.

On Tuesday he will participate in an excursion on the bay and visit harbor fortifications. He will be tendered a banquet on Saturday evening, May 2d, after his return from Monterey.

The President's visit to Palo Alto will be for the purpose of inspecting the Stanford University. There will be no ceremonies, as has been stated. The cornerstone of the institution was laid long ago, and the dedication will not take place until October.

Benjamin Harrison, of whom a good portrait appears upon the first page of this issue, was born at North Bend, Hamilton county, Ohio, August 20, 1833. His father was John Scott Harrison, who served his district two terms in Congress. His grandfather was that famous leader and general, who, after a life of brilliant and distinguished service in the forum and the field, was elected President of the United States, after the most exciting campaign of 1840. His great-grandfather was one of the heroes of the Revolution, Governor of Virginia, and a signer of the Declaration of Independence. One of his ancestors was a general of the Commonwealth of England, before Cromwell's usurpation, and whose unflinching Republicanism cost him his life in the early days of the Restoration. His immediate descendants came to America and founded the family in this country.

Benjamin Harrison received a classical education, and is a graduate of Miami University, Oxford. Immediately after graduation, he commenced the study of law at Cincinnati, Ohio. In 1853 he was married, and in 1854 he established himself at Indianapolis, his present home. On the breaking out of the Rebellion, he left home, a successful practice, and all that makes life pleasant, in response to his country's call for her defense. The same diligent application that contributed to his success in peace enabled him to succeed in war, and the proclamation of peace found him wearing the stars of a general. In 1881 he was elected to the United States Senate, serving out his full term. In 1884 he was prominently canvassed as a Presidential candidate, and in 1888 was nominated and elected President, taking the oath of office March 4, 1889.

**ENFORCING THE PEST LAW.**—The horticultural authorities in Los Angeles are going ahead under the new law, already published in the BURAL. The Los Angeles Times says: Inspector Richardson has started in to rid all the trees hereabouts of the scale pest. He is at present engaged at the Hewitt tract on the east side of Galena avenue, and will continue operations until the whole town has been covered. After taking the necessary steps to discover the owner of neglected orchards, if unsuccessful, the work will be done at the expense of the county, which, in turn, will become a lien on the property. The county horticultural commissioners will be in town on Thursday to see what progress is being made. There is much of this work to do in Los Angeles because so much orchard property was cut up into lots and sold to absentee owners.

## Revival of the Cattle Interest.

We have had several articles looking toward the revival of the cattle interest, which we believe to be forthcoming. No doubt many readers who have in mind the wretchedly low prices they have recently secured for beef cattle and for fine young thoroughbred breeding animals think it is high time that there should be a change if they are to keep soul and body together and their enterprises afloat. So, indeed, it is, and we believe they will not be disappointed in the forecast for better days. We have given full statistical authority looking in this direction. The *Breeders' Gazette* of Chicago now sees unmistakable evidence of anticipated shortage in the operation of the great slaughterers of that city who are making enormous purchases for fear of being squeezed in a shortage which they foresee. They have, it is said, bought all the cattle at the Canadian distilleries, and have bought over 80,000 head of cattle in the pan-handle for upward of \$2,500,000. Upon these statements, the *Gazette* thus remarks:

If there are any competent witnesses on the subject of the present cattle supply of the country, they are certainly the slaughterers of Chicago, who for so long a time have had the market in their remorseless grasp. The ramifications of their systems extend the country over, and they are in possession of greater facilities for gathering information on this subject than any one else, the Government not excepted, for it is their business to keep posted. When they thus hoist the signal of distress it surely is time for the most skeptical and the most conservative to bring themselves to a realization of the situation. We have reached the turn in the road.

The experience of the past few years unmistakably teaches the advantage of producing better beef animals, and with present low prices for thoroughbreds, such blood is available to all. We have emphasized this point before, but the following from the *Gazette* will serve as another lesson from the same text:

With the lessons of the past few years as to the wide range in values in a single day's market before our cattle-breeders, it would scarcely seem necessary to argue the folly of a return to the propagation of inferior herds. Surely the appeal to the pocket-book has been convincing enough to deter any intelligent man from again taking up with an inferior class of cattle, with the expectation of deriving any satisfaction or profit from their handling. Much of the scrub stock has gone through the packlog-house during the past three years; let us sincerely hope that what remains will be given the best advantage to redeem itself—and that can only be afforded by the services of herds of the improved breeds. It is not within the possibilities that the prices of pure-bred cattle should remain at their present point while the prices for beef cattle continue to mount skyward. The one will of necessity bear the other with it in its upward flight.

There is no time to be lost in getting possession of good blood. When values are at rock bottom, their course is invariably upward. Do not lose the chance to get good blood now and use it for all it is worth on common cows. Do not allow auctions to be held without attendance and permit fine young bulls to be sold, as they have recently been in this city, at little more than beef value. The man who stocks a good range now and handles good blood in a practical and sensible way is morally certain to be largely profited by the enterprise.

**REPORTS OF THE BOARD OF FORESTRY.**—The last two reports of the California State Board of Forestry have contained much remarkable information, not only about forestry work, but especially with reference to classification and description of our native California trees. These publications have not in all cases at least reached those who are likely to be most interested and benefited by them, and we are glad to announce that copies can now be had by applicants, as will be specified below. The Second Biennial Report describes especially the "Prices of the Pacific Slope," with 24 illustrations, and of this a few copies are still to be had. The Third Biennial Report, recently published, contains a monograph with 30 illustrations of the cone-bearing trees of the Northwest, especially of California. This work in both reports is by Prof. J. G. Lemmon, the well-known botanist, and copies of the documents can be had by application to him at 1015 Clay street, Oakland, sending ten cents for each report to cover expenses. These reports will soon become rare and difficult to obtain.

**A SAD AFFLICTION.**—The many friends of J. De Barth Shorb of San Gabriel will sincerely sympathize with him in a most distressing bereavement. His youngest son was killed by a vicious dog last week. It is a case in which words cannot express the feelings which the event inspires.



## The Orange Carnival in Chicago.

Our enterprising citizens of Southern California have made a grand strike by their transfer of the chief features of the recent Los Angeles Citrus Fair to Chicago. The telegraph wires are laden with accounts of the success of the opening which occurred on Monday evening of this week. Estimates of numbers in attendance vary from 15,000 to 25,000. There were in any event so many thronging the great pavilion building, that the formal opening exercises had to be in part abandoned.

That the affair is really a marvelous success is evidenced by the reports made by the local papers. The *Daily News* in its account says:

"Twenty-two thousand people feasted their eyes upon the Southern California orange display. It was something new—a fresh amusement for Chicago, and it scored a hit. The 500,000 oranges which have been deftly grouped, arranged and constructed into forms and structures never before seen in this city, heaped on the delightful throng, and incidentally, while the Second Regiment band played its sweetest, called attention to the glorious climate of California."

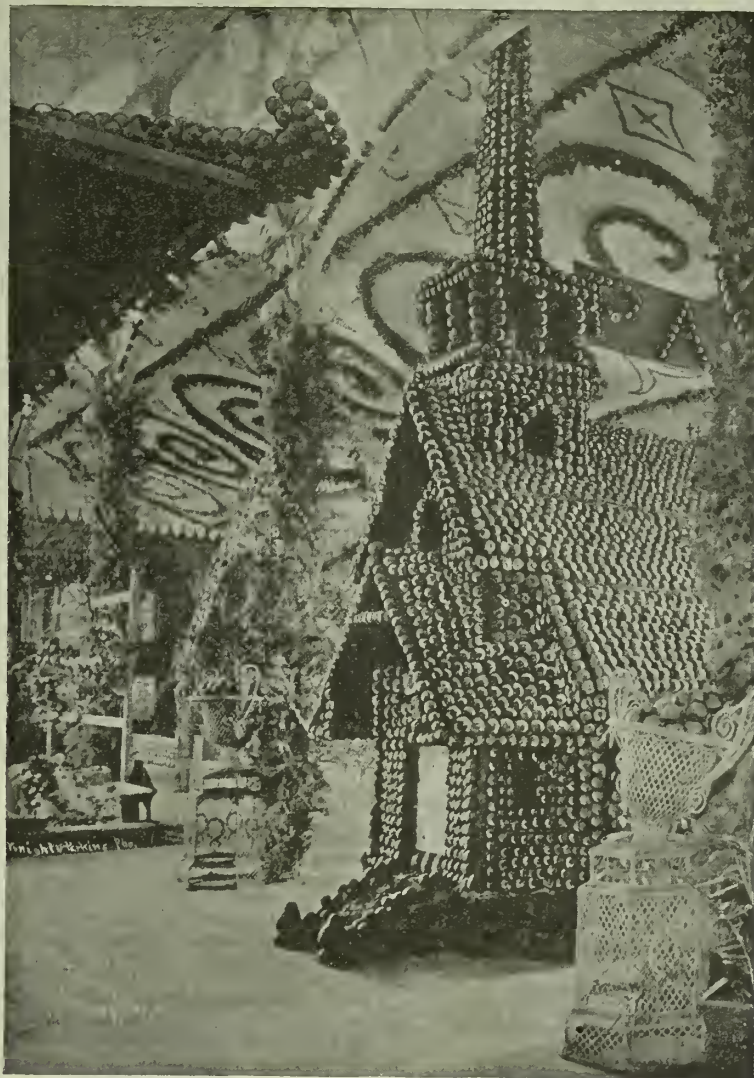
The telegrams contain interesting accounts of the opening exercises, which had to be held in an ante-room to get out of the way of the crowd. President Jackson made an address recounting the days of the Argonauts, and contrasting the California of '49 with California of to-day, with its great resources and bewildering beauties.

He was appropriately answered by J. W. Cook of Glendora, who ascribed the State's greatness to the courage, patience, fortitude and foresight of the pioneer. Immediately after this Peter Studebaker, the head of the great Studebaker Manufacturing Company, who came up from South Bend, Ind., expressly to be present at the opening of the carnival, made an address in reception to as many as could crowd into the room, telling in a droll way his experience as a pioneer.

He told how the first wagon he ever made was sent to California across the plains, he giving the wagon to the captain of the train for the privilege of joining the party in the capacity of a hull-whacker; how he landed in the mining regions with \$65, of which he was promptly relieved by hunko sharpers, and how the lesson then learned served to lay the foundation of his prosperity. Finally, he congratulated the Californians upon the magnificent display they had made. State Senator Ballou and others also made speeches, and the carnival commenced under remarkably favorable circumstances.

Another feature of the evening was the presentation to the managers of the show of a beautiful floral piece by the Chicago California Fruit Buyers' Association. The piece is six feet in diameter and four feet high, and contains over 3000 roses. The convex center forms a stem end of an orange, orange-colored calendulas being set around the stem. The rim of the orange is of Marechal Niel roses. The center is completely girdled by a belt of roses ending in a huckle and projecting strap of red and white carnations. In the center of the belt are the words, "The Orange Belt of California." Above and below the inscription are bridal roses of a light cream tint, and the trimming of the entire piece is American beauties, ferns, lilies and smilax. It cost \$500. During the continuation of the carnival it will be kept in order at the expense of the donors.

The general display is the most elaborate and perfect of its kind ever seen. Starting at the



PALERMO'S EXHIBIT AT THE MARYSVILLE CITRUS FAIR.

door the visitor sees a glorious orange 37 feet in circumference made up of thousands of smaller fruit. Behind it is the rest of the orange county products in the form of hanks and pyramids of limes, lemons and oranges with a car-wheel, indicating that all are sold in car-load lots. To the left is the additional display made by Cucamonga of oil, wine and other things.

Then comes the beautiful arch, 46 feet in span, of Redlands, San Bernardino county, representing in its background the Bear Valley dam. Next is an exhibit from Ontario of a car composed of oranges. The upper San Gabriel valley with separate exhibits from its three towns—Glendora, Covina and Azusa—shows a model of Cleopatra's Needle and fruit enough to give 73 small boys colic every half hour for ten days. An interesting feature of the exhibit is the courthouse of Los Angeles standing upon an eminence and built, except the clock, of mandarin oranges and limes.

The bay and harbor of San Diego, with Point Loma, are represented, gulches and all, in the gold-yellow fruit, with orange and lemon laden

ships, wharves and piers. The exhibit of various products of that glorious climate follow.

A beautiful model of the old mission of the Franciscan monks at San Gabriel stands at one side of the entrance, with steps, ruined walls and the old Spanish belfry carefully portrayed. In the center are architectural designs not less pretentious and impressive.

Duarte has a great mosque, crescent-topped, admitting a score of persons beneath its bulging minaret, while to the north is the great obelisk of Pasadena. This alone required 24,000 oranges of assorted kinds, Navels, St. Michaels, Malta Bloods and Mediterranean Sweets, the choicest of all the Golden coast products. Nearly 200 boxes made up 38 feet of solid oranges, with palms and pampas plumes atop, bringing the total height of the column to 50 feet.

The Santa Barbara exhibit was in hard luck. The first night out, before it had crossed the mountains, the train tumbled down an embankment and left nothing but fragments. A new lot of fruit was forwarded and the original idea of a beautiful tropical garden carried out.

At the entrance to this garden, stand two great fan palms.

Behind them are strawberry gnava of Japan in full fruit, from which comes the famous jelly, and the banana, both in fruit and flower. Custard apples, Cherymoya, Egyptian papyrus, giant bamboo, etc.

Then there are two date palms containing six bunches of fruit, weighing from 60 to 80 pounds apiece, a branch from a lemon tree, 11 feet long, all grown in four months. All this with raisins and olive, citron, lemon and orange trees in both blossom and fruit, will hardly give a complete idea of the finest exhibit ever made.

Among the Californians interested in the exhibit are Dr. Wilder, president of the Woman's Annex of Los Angeles Chamber of Commerce; C. M. Wells, president of the Fruit Growers' Association and of the Los Angeles Chamber of Commerce; H. Jay Hanchette, secretary of the Chamber; J. W. Cook, supervisor of Los Angeles county; Frank Wiggins, his assistant; M. H. Wright, Barney Williams, J. W. Banberry, Pasadena; L. S. Bridge, J. D. West, Glendora; G. D. Bunch, L. L. Bequette, Rivera; C. L. Loud, Pomona; W. Friend, Ontario; H. H. Sinclair, Redlands; H. O. Fosdick, Tustin; C. L. Lloyd, Santa Barbara; A. C. Weeks, Alhambra; L. E. Allen, San Diego; R. H. Young, editor San Diego *Great Southwest*.

## Restoration of San Gabriel Citrus Orchards.

We have had many statements of the grand work done in the Southern California citrus orchards by the Anstrallan ladybng (*Vedalia cardinalis*) in clearing out the ruinous cottony cushion scale (*Icerya purchasi*). The following explicit statement we take from a letter dated April 6, 1891, from A. Scott Chapman to Prof. Hilgard:

The San Gabriel citrus orchards have pulled out of the mire and everything looks hopeful. I have 150 lemon trees, which, in the summer of 1889, yielded no fruit at all and the trees were dying. During the summer of 1890 the scale was cleared out and I have sold fruit as follows: July, \$9; August, \$52.43; September, \$141; February, 1891, \$108; to-day (April 6th) I make a shipment of 152 boxes and have as many more just gathered in the packing-house, and the trees are in splendid shape.

My father, A. B. Chapman, comes out even better on five acres of fruit huddled on Tahiti lime stock. He calls the fruit the "Central American orange." Last year he did not harvest a single box and this year he has gathered about 4000 boxes and has no bugs. He has used superphosphate and nitrate of soda as fertilizers.

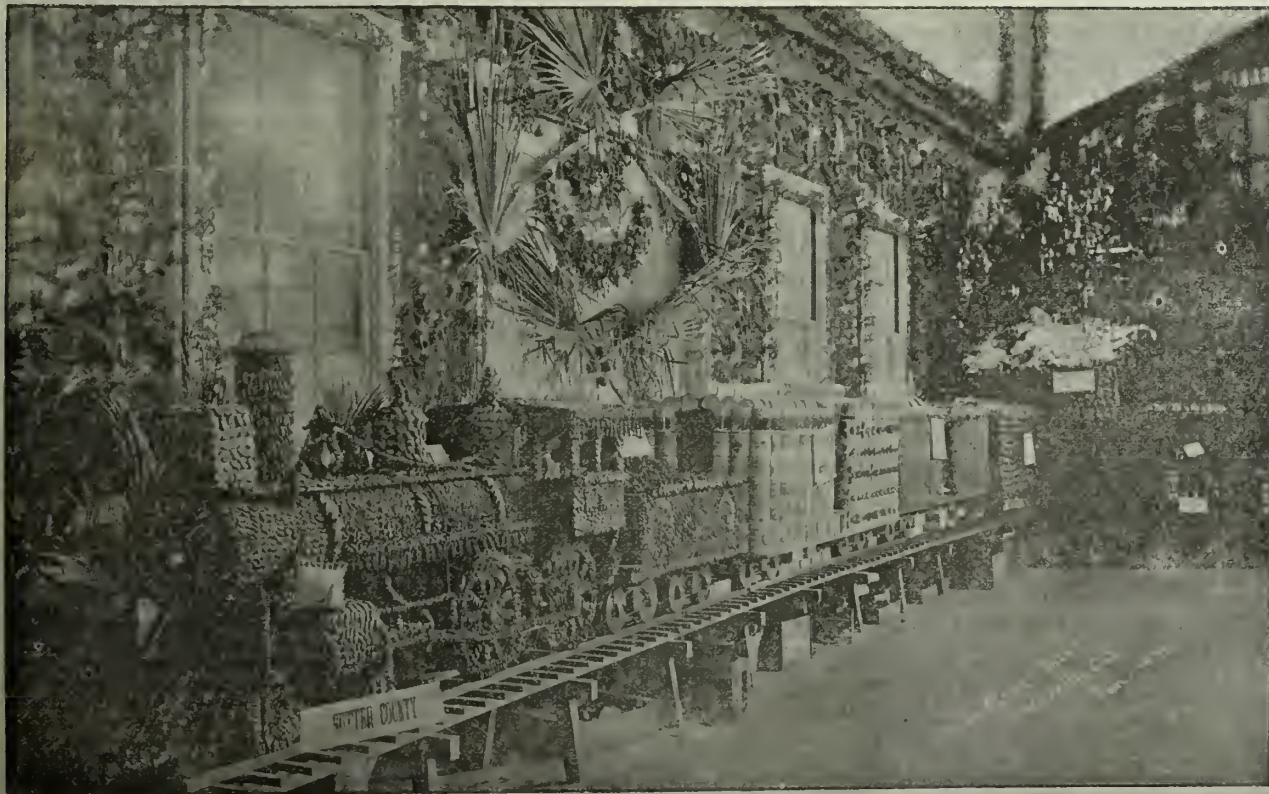
This is a signal triumph for economic entomology. The fate of the cottony cushion scale has been sealed. Now we want parasitic or predaceous insects which will handle all the other scales which infest our fruit trees. As we have already stated, the State has set apart \$5000 to carry on the search for them. May it prove successful.

## Echoes from the Marysville Fair.

The account of the grand triumph of the Southern citrus fruit-growers at Chicago calls to mind again the grand display made by the Northern citrus fruit-growers at Marysville, of which full descriptions were given at the time, but were not accompanied by pictorial illustration. Upon this page may be seen two of the most unique designs at the Marysville fair. The pretty little church with its steeple 20 feet high was made by the representatives of Palermo, modeling their exhibit after the place of worship in that colony and using 8500 oranges in its construction.

The other picture represents the Sutter County Fruit Co.'s train, which stretched for nearly 50 feet along the southern wall of the pavilion and consisted of locomotive, tender, and three cars. The locomotive was elaborately plated with dried fruits, the boiler appearing in pitted plums, the dome and sand-box of peaches and white figs, the smoke-stack of black figs, the pilot of raisins, etc. At night it carries a *bona fide* electric headlight. The oah and tender were finished in similar fashion and the latter were heaped with French prunes instead of coal. The three cars typified the canning, the drying and the citrus seasons, the first being freighted with oans, the second with dried fruits in great variety and the third with oranges.

SEIZURE OF FRAUDULENT MILK.—The Health Officer is seizing and condemning "Elephant brand of condensed milk." The alleged condensed milk, upon examination by the Health Officer, was found to be a preparation of terra alba (white clay) and other deleterious substances, in appearance very much resembling axle grease. The seized "milk" has been selling in the market at 10 cents a can, which fact alone Health Officer Keeney considers sufficient to prove it a fraud. Good condensed milk, he says, cannot be made for less than 15 cents a can, while the best quality sells for about 20 cents.



THE SUTTER COUNTY FRUIT COMPANY'S FRUIT TRAIN.



## AGRICULTURAL NOTES.

## CALIFORNIA.

## Butte.

**SALES OF NEW CROP WHEAT.**—Chico *Enterprise*, April 8: The outlook for the wheat crop is good, and if the weather continues favorable, there will be an immense yield. The old crop has not been so completely cleaned out of first hands for many years, and old milling wheat is becoming very scarce and commands a high figure. Already our local grain dealers are in the market for the new crop, and some sales have been made for July, August and September delivery at \$1.30 per cental.

**BELIEVES IN THOROUGH DRAINAGE.**—Biggs *Argus*, April 9: James Baynon, one of the best-fixed farmers on the adobe west of town, is about to purchase a 14-horse ditcher and excavator with which to excavate drainage ditches on his 1400-acre farm. The machine is to have an elevator which carries the dirt from the ditch and deposits it on the side, thereby making a levee on either side. Mr. Baynon sees the necessity of thorough drainage to make his land productive.

**REDLANDS FOR FRUIT AND ALFALFA.**—*Argus*, April 9: Daniel Streeter, who owns a section of land about eight miles northeast of town, which consists of red sandy loam, has just finished setting out 22 acres to White Adriatic figs. He planted a few trees on this land some years ago, and they grew so well and produced such fine fruit that he concluded to plant extensively. He is now preparing 75 acres of similar land adjoining the fig orchard, which he will plant next year to prunes, almonds and grapes. On this same place Mr. Streeter has six acres in alfalfa, which is doing fine, some of the roots of the clover having penetrated to a depth of 15 feet. The fine stand and beautiful growth made by this patch, which has never been irrigated, has convinced the owner of the excellency of the soil for alfalfa growing, and he is cultivating a 100-acre field which he will plant next February.

**RIVER PLANTING NEAR PALERMO.**—*Progress*, April 11: West from Palermo, at the river, W. R. Strong Company has planted 200 acres in various kinds of deciduous fruits, and T. B. Hutchins and Philip Hefner have likewise planted several hundred acres of deciduous trees. Several hundred acres of potatoes have also been put in on the river-bottom land.

**LARGE ORANGE GROVES.**—Palermo, April 11: The largest grove of oranges yet planted in the world and owned by any one man is, we understand, one owned by Seth Richards of Pomona, Southern California, according to the *Pomona Register*, and is wholly planted to Navel oranges and contains a little over 400 acres. According to the *Ontario Observer*, a still larger one is being planted this year at that place and will contain 700 acres. The *Progress* says: Major McLaughlin of Oroville is now preparing to set 147 acres in oranges at Thermalito. We already have at Palermo the Hearst & Taylor orchard of 245 acres, and the Daly & Sargeant orchard of 126 acres. Droscher & Hickmott have, adjoining Palermo, 100 acres in one tract, and are preparing to add more to it this year.

**PALERMO OLIVE OIL CO. INCORPORATES.**—Palermo *Progress*, April 11: A project for an olive-oil factory has been worked up and was consummated this week by the incorporation of the Palermo Olive Oil Company. Palermo has become the center of a large orange and olive growing country, and in the case of the olives, it is certain that no better and more favorable part of California can be found for the production of a first-grade article of commerce, grown from flourishing healthy trees, in no way liable to scab, and other pests on the coast. The acreage is already large, and preparations are on foot for increasing it very extensively in the next few years.

## Contra Costa.

**TREE-PLANTING IN CONTRA COSTA.**—Danville *Cor. Gazette*, April 11: Orchardists had very nearly a perfect winter for setting out trees, and the result is that nearly every tree planted this winter is now starting out a very thrifty growth of young leaves. As one of our neighbors remarked a few days ago, "last winter was the worst we ever experienced in California, and this one has been the best out of about 35."

## Fresno.

**TREE AND VINE PLANTING AT REEDLEY.**—*Exponent*, April 8: A. B. Clark has set out 100 acres of Muscatel raisin grapes, and will set out 120 acres more. The California Fruit and Wine Land Company's vineyard has set out 50 acres to olives this season. It took 5000 young trees at a cost of \$1.00 each to go over the 50 acres. At the Carmelita vineyard, 160 acres have been set out to vines and trees, as follows: raisin grapes, 80 acres; Bartlett pears, 20 acres; peaches, 10 acres; apricots, 10 acres; oranges, 20 acres. In addition to this the vineyard is rooting 60,000 seedless Sultana cuttings. A. T. Simpson has set out 25 acres to Muscatel raisin grapes. The new vineyard, which has over 12,500 vines, is in colony lot 42.

## Kern.

**FOXTAIL DISAPPEARING.**—Bakersfield *Californian*: It is reported that the foxtail which has been so annoying in the first crop of alfalfa is turning into cheat. One farmer who last year burned over 200 acres of alfalfa in order to destroy the foxtail, says that this season there is hardly a spear of foxtail, and he in-

tends to save the first cutting, as cheat does no harm.

**TREE PLANTING NEAR BAKERSFIELD.**—T. M. Sweet in Fresno *Expositor*, April 10: At Poso the Delta Fruit Company is planting 160 acres with raisin grapevines, and has another 160 upon which a good crop of barley is growing. An orchard will be planted on its grain land next winter. The Golden State Fruit Company, which has 160 acres near Poso, has finished planting it in fruit, while many smaller tracts have been improved by settlers. A decidedly notable addition to the long list of permanent investors in Kern county lands is the Earl of Gosford, a member of the British House of Lords and the head of one of the oldest and best-known families in England. This gentleman has purchased an entire section (640 acres) of land a short distance from Bakersfield, and he is having a part of it planted with grapevines, peaches and pears. It is his intention to plant the entire section, and no pains will be spared in bringing it to the highest stage of development.

## Merced.

**AN EASTERN COLONY.**—*Star*: A syndicate of farmers from Illinois has purchased the entire Dean colony, consisting of 300 twenty-acre tracts. The colony is located about three miles west of Merced, and is adapted to the culture of figs, prunes and raisins. Every 20-acre tract will be occupied by a family. The people are all Americans and Presbyterian. A number of them have already arrived, and the work of improvement will begin at once. The colonists who buy pay \$50 per acre for land, inclusive of water-rights.

## Monterey.

**RAINS IN SALINAS VALLEY.**—*Salinas Index*, April 9: To set at rest all apprehensions regarding crops, in the middle of the afternoon of Monday, the gentle rain began to come down. The storm was timely and will help the grain to stool and cover the ground and hold the moisture already in the soil, and also what may reasonably be expected to fall later on.

## Napa.

**GRAIN CROP IN NAPA.**—*Register*, April 10: The members of the Board of Supervisors, which is this week in session, all give encouraging reports of the crop, both fruit and grain, in their respective districts.

**FRUIT CROPS IN NAPA.**—*Register*, April 10: Horticultural Officer M. F. Inman of St. Helena was in town Tuesday. He says fruit prospects throughout Napa valley were never better. Timely showers have supplemented the work of the orchardists, and there is little fear entertained of damaging frosts. Peach trees were never in freer or firmer condition than now. They are entirely free from the "sap blight," which sometimes affects them, and are loaded with the promise of a big yield. Almonds are out of harm's way. In many cases they are already as large as robins' eggs and the foliage of the trees completely covers them. Nature has performed a good service for the prune-grower in sending storms to thin out somewhat the fruit upon his trees. Never were branches more heavily loaded, and, unless the unexpected intervenes, the prune crop throughout Napa county will this season be immense. Grapes are somewhat later than usual, but those vineyards that have been cared for and are free from phylloxera are in splendid condition, and the vintner has every reason to be happy.

## Orange.

**LARGEST CULTIVATED WALNUT GROVE IN THE WORLD.**—*Anaheim Gazette*: The 700-acre walnut grove south of town belonging to Messrs. Jones, Culton, Minor and Fowler is the largest in the world.

## Placer.

**LARGE CROP OF FRUIT AT NEWCASTLE.**—April 13: The indications are that the fruit crop at Newcastle this year will be the largest ever known there. Advices from every quarter indicate that all varieties of fruit will mature in abundance, and that a large percentage of the fruit now upon the trees will have to be thinned out to prevent the trees from breaking down. The Southern Pacific Co. is already preparing to handle the heavy shipments of fruit which will be made from this point.

## San Benito.

**CROPS IN SAN BENITO.**—*Hollister Advance*, April 10: The heavy rains of Monday and Tuesday have assured a heavy crop in this county. Farmers, merchants, stockraisers and business men are jubilant over the prospects. From all points of the county come the same glorious tidings, and the harvest of 1891 will be the heaviest for years past. Even the late-sown grain is assured. The acreage sown this year is computed to be about three times as large as last year, and the yield per acre will be about double.

## Sacramento.

**NEXT SEASON'S HOP SALE.**—*Record Union*, April 9: "Here is a pointer on hops. Henry and W. E. Gerber have contracted with a hop firm to grow and deliver 30,000 pounds of hops this summer, and the hop firm agrees to pay 17 cents a pound therefor."

**FLORIN FRUIT-GROWERS IN CONVENTION.**—*Record Union*, April 7: There was a very large assemblage of fruit-growers at Florin. The Manager of the Fruit-Growers' Association, David Reese, made his report which showed that during the year \$8000 came back to the strawberry-growers, they having shipped their berries by carloads eastward, and received very satisfactory prices for the same. Seventy cars of grapes were shipped to every important city

of national note east of the Rocky mountains, going as far as Boston and New York. One grower by way of experiment, shipped several crates of Tokay grapes to London, England, thus proving that Florin grapes are, as has been claimed for them, perfection for shipping. The grape receipts were reported to be about \$50,000 for last year.

## San Diego.

**TREE PLANTING AT ESCONDIDO.**—*Times*, April 9: S. P. Abell informs us that there were no less than 150,000 fruit trees set out in and around Escondido this season. He is one of the county inspectors, and consequently speaks by the book.

## San Joaquin.

**CONVERTING ALKALI SPOTS INTO FERTILE SOIL.**—*Stockton Mail*, April 7: There is an effective expedient on the farms of C. W. Bidwell to redeem alkali spots. Galvanized iron pipes, well perforated, are sunk through the hardpan in the lowest depressions of the alkali land. The pipes run down into the quicksand or gravel, as the case may be, underlying the hardpan. As is well known, water is a good absorbent of alkali, and consequently the rains of winter take up the alkali, and when the water drains off down the pipe into the gravel, it takes, of course, the alkali with it. In this way, spots that once would support no growth whatever—not even salt-grass—have been converted into the most fertile soil. It is, of course, impracticable to work the scheme in land where the stratum of gravel is very deep. In some tracts, the blue clay is 40 feet thick. The work of boring holes and sinking pipe in such places would cost more than the spots redeemed would be worth.

## San Luis Obispo.

**SAN LUIS OBISPO CROP NOTES.**—R. T. Fanset, six miles east of Paso Robles, brought in a sample of wheat and barley that measured nearly five feet in height, grown this season. He says he has about 200 acres of the same kind with as big a growth. The wheat and barley both are well headed for this time of the season. Our Stimmier *Cor.* says crops look fine and the farmers are busy summer-fallowing and other planting gardens. Some fruit trees have been planted, but our country is new and we are slow in starting orchards.—*Paso Robles Moon*.

## Santa Barbara.

**CROP PROSPECTS AT SANTA MARIA.**—*Times*, April 11: The recent rains have put broad smiles upon our farmers and citizens in general. Our valley never looked more attractive than at the present time. Its apricot and peach orchards are out in full bloom, while the earlier varieties are already laden with fruit. Its grain-fields display every sign of a bountiful harvest.

## Shasta.

**CROPS AT MILLVILLE.**—*Cor. Redding Democrat*, April 8: The farmers are all jubilant over the prospect for harvesting one of the biggest crops ever raised on the east side. This crop ought to make times better next summer. Mr. Hereford & Sons have every acre of their fine farm sown to grain. Benj. Atkins has about 200 acres in on the D. T. Shearlin place; the Webb boys have about 100 acres in. Hoff man of South Cow creek will plant his place in corn and artichokes. Wagoner and all the rest on the creek have fine-looking crops.

**WHEAT CROPS IN PARADISE VALLEY.**—*Anerson Enterprise*, April 9: Wesley Harris and Mr. Hampton, Ohann Creek, Paradise valley, agree that growing grain never looked healthier or more prosperous in that valley than at present, and there is fully two times the area of any single season before.

## Solano.

**PROFITS FROM AUXILIARY FARMING.**—*Dixon Tribune*: Of late years there has been a marked increase in the amount of eggs, butter and poultry marketed by farmers in this community. This increase seems to be principally among the farmers who till from 160 to 320 acres, and the result is that many of them are beginning to realize that a close attention to these small matters is the surest road to success. One of them recently remarked that his farm about paid his running expenses, and that nearly the only profit about the business was derived from the sale of poultry, butter and eggs.

**TO BOOM SOLANO COUNTY.**—*Vacaville Enterprise*, April 11: For the purpose of presenting the value of Solano county as a fruit producing section, Assessor Schirmer has prepared a blank for fruit-growers to sign, giving the number of trees and vines of all varieties, bearing and non-bearing, and also the acreage devoted to each.

## Sonoma.

**APPLE ORCHARD AT STEWART'S POINT.**—*Petaluma Argus*, April 11: An apple orchard of 10,000 trees is to be planted near Stewart's Point by Wetmore Bros. of San Francisco. The *Argus* has predicted that the best shipping apples would eventually be grown near the coast.

**EARLY CHERRIES.**—*Argus*, April 11: A friend left at the *Argus* office several oliviers of Tartarian cherries finely developed. The crop has the appearance of being one of the largest for several years past.

## Stanislaus.

**SAN JOAQUIN VALLEY CROP PROSPECTS.**—*Cor. Santa Rosa Republican*: There is every reason to believe that the crops in the San Joaquin valley are in a most promising condition. As far south as Tulare, the grain is magnificent. Sum-

mer-fallow is waist high and is beginning to head. Winter sown grain is not far advanced, but it, too, looks healthy and has the ground well covered. Trees and vines are in blossom and in leaf, and everything in the agricultural line betokens plenty and prosperity. At Merced, the business men feel confident and say the outlook was never more cheerful. The large sheep-ranges are giving way to the small fruit-farm and the country school house. Stanislaus is the great wheat county of the State. In San Joaquin county from Tracy, Byron, Lathrop, Rippon and Stockton one can see great fields of waving grain all of which is looking well. Contra Costa county, too, is well sown. There is an immense acreage, all of which is full of promise. Take it all in all the grain crop of the San Joaquin valley is looking well.

## Sutter.

**GRAIN CROPS IN SUTTER.**—*Independent*, April 10: Sunday we rode out among the grain-fields and found a majority of them needing rain. The earlier sown summer-fallow had made a fair growth and maintained a healthy color, but later fields showed a tardy growth and lack of surface moisture. In many places the ground was badly crusted on top, which would have soon begun to pinch the plants. The rain since Sunday is very timely, and if followed by warm weather, wheat and barley will make a rapid growth. We believe that the acreage sown to grain in this county this year is fully 25 per cent above the average, and we now see no reason why the yield per acre should not be up to the average.

## Tulare.

**MORE ABOUT FROST DAMAGE.**—*Times*, April 9: There has been several heavy frosts within the last two weeks and orchardists appear divided in opinion as to its effect on fruit. No doubt apricots have been damaged, though a gentleman of Traver, on Saturday last, informed the *Times* that just enough of his apricots were killed to save him the trouble of thinning the fruit on the trees at a later date.

**LARGE HAY CROP—BEST ALL GONE.**—*Times*, April 9: The hay crop harvested last season was so abundant, and far beyond the needs of home consumption, that it was predicted prices would rule low for that article. While prices have not been exceedingly high to date, good profits have been realized and the crop has been disposed of. Fresno has purchased largely in this county, and in fact has taken the surplus, until now there is little to be had in car-load lots. To-day Fresno is shipping hay from Livermore, and had our crop been one-third larger than it was last season, no doubt Fresno would have taken what was to be spared.

**PRESENT STATUS OF A LARGE BODY OF LAND IN KERN.**—*Visalia Times*, April 9: A number of people who filed on Kern county lands, claiming them as desert, do not appear to understand the present condition of those lands. Those filed on in 1877 were soon after expended and remained in that condition until the beginning of the present year, when they were restored, and are now subject to reclamation and proof—that is, those who originally filed desert entries on these lands now have something over two years in which to put water on their claims, after which they can make proof and in time receive patents for their land. There are few pieces of this land on which contests have not been filed, but this will not hinder the original claimant from obtaining the land in case he has complied with all the provisions of the Desert Land law. Of course these contests will have to be heard before the Register and Receiver of the Land Office in this city, and this will add to the cost.

**SPRAYING BUGS AT GRANGEVILLE.**—*Cor. Visalia Register*, April 10: A few of our vineyards are bothered with a little black bug eating the leaves. The remedy being used is Paris green dissolved in water, one pound of Paris green to 180 gallons of water. It is applied with a spray pump or a sprinkling can. The bug has a gray stripe down its back.

## Ventura.

**TREE PLANTING AT SATACOOY.**—*Cor. Los Angeles Express*, April 9: Thousands upon thousands of fruit trees have been planted in and around here during the past winter, largely walnuts of the soft shell variety. The country, from one end of the valley to the other, will soon be one solid fruit orchard. From Camulos to the sea the prolific lands are being planted to apples, oranges, lemons, apricots, walnuts, and such other fruits as each section is best adapted to.

**VENTURA COUNTY BEAN CROP.**—The prospect was never better in this vicinity and throughout the whole valley for a fine bean crop. The rains coming late prevented weeds from starting, the land has been easily worked and farmers are happy, as well they may be.

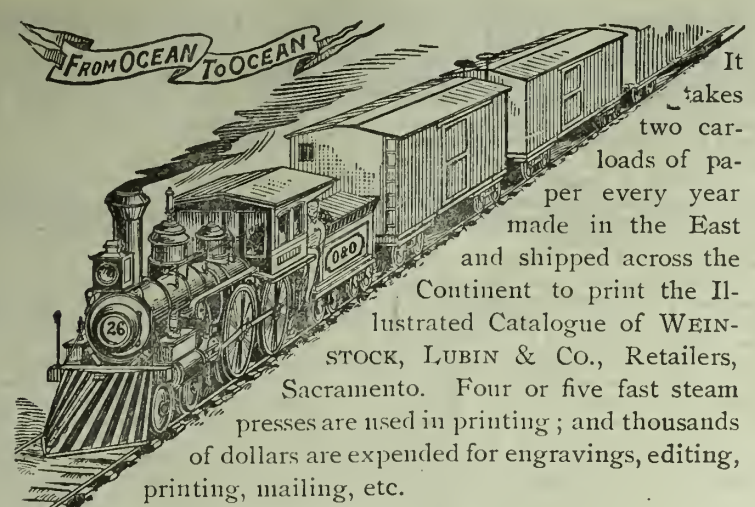
## Yuba.

**GRAIN CROP PROSPECTS IN YUBA.**—*Wheatland Four Corners*, April 11: That so many grain ranchers are purchasing improved harvesters is an indication that the 1891 crop has fair prospects. In fact, the grain is looking extra fine, and a farmer remarked to us the other day that it would be nothing less than a miracle if the crop turned out poorly.

## NEVADA.

**CATTLE IN GOOD CONDITION.**—*Central Nevada*: Cattle throughout this section are in better condition this spring than for the past six years, and trainloads are being shipped from Iron Point to market.





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# STANDARD MOWER

ONE MAN AND TEAM instead of two.  
TWENTY ACRES A DAY instead of ten.

## CUTTER BAR

has no nuts or obstructions on top, the obliquely

## RECESSED GUARDS

bolt to finger bar with nuts on under side, leaving upper side of cutter bar perfectly smooth surface.

MAIN WHEELS made interchangeable — one wheel fits either side of mower.

## NO SIDE DRAFT

as CUTTER BAR is carried entirely on Main Wheels.

7-FOOT mower will do as much with one team as two 4-foot machines, SAVING half the corners.

THE FOOT LIFT raises cutter bar with perfect ease without the aid of hand lever, the first ever made. EASILY TILTED.

THE STANDARD MOWER can be entirely taken apart and put together again by the farmer with a common wrench. SEND FOR SPECIAL CIRCULAR.

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Having arranged with a leading American firm for the manufacture of our machinery, we are prepared to build complete plants and furnish skilled labor to operate them when desired. We are the builders of the Alvarado, Cal., Sugar Works, and the Utah Sugar Co.'s Works, now in course of construction. We guarantee our work. Correspondence solicited.

## The Celebrated Chapman-Climax Spray Pump

is still ahead of all competitors, and is the most popular spraying machine in the market. THE CLIMAX NO. 1, represented by this cut, is the cheapest reliable sprayer made, and its economy in the amount of wash required for a given amount of work will save its cost in a few days' operation. IMPROVED CLIMAX NO. 2 is a large double pump, made entirely of brass, and equipped complete with two lines of hose, four improved Pacific Cyclone Spray Tips, extensions, shut-off valves, etc. Guaranteed the safest, most satisfactory, and, in the end, the cheapest large spraying outfit in existence. Correspondence solicited. Address all communications to

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Perfect removal of scales guaranteed and invigoration of Trees without possibility of injury. Now is the time to apply. This is the best wash yet produced for all kinds of fruit trees and shrubs. It removes scale from deciduous, citrus or ornamental trees without injury. One application every year is all that is required. From hundreds of testimonials we print the following:

WALNUT GROVE, February 14th, 1891.—MR. C. J. WOODBURY, 123 California Street, San Francisco, Cal.—Dear Sir: I have been using the Rosin Tree Cleanser, as put up by you, for the past two years, and find my trees almost free from scale. It does its work more thoroughly and is less trouble to work than any wash I have ever used. I have tried most all the washes that have ever been compounded. Yours respectfully, L. D. GREEN.

Directions (most simple, easy of application) sent with each shipment. This wash is guaranteed not to harm the leaf, buds or in any way keep them from forming.

Please observe the price. Put up in cases, 45 pounds in each can, two cans in a case, two cents per pound; in barrels, 1 3-4 cents per pound; by the ton, 1 1-2 cents per pound. Weight, nine pounds to the gallon. To one gallon add seven gallons water, result eight gallons ready for use, at a cost of thirteen and one-half cents. Correspondence solicited.

Harvest Oil for Farm Machines, guaranteed anti-gumming, superior to Castor, 50 cents per gallon. ADDRESS

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## ENTOMOLOGICAL.

## A Notable Address by Prof. Riley

We intended sooner to have alluded to the address made by Prof. C. V. Riley, U. S. Entomologist at the last meeting of the Association of Economic Entomologists in Washington, but the pressure of entomological information has deferred reference to the broader field in which Prof. Riley labors. We shall now select from the address alluded to, certain portions which seem of greatest interest on this coast.

## Scale Insects.

The hydrocyanic acid gas treatment against scale insects is becoming more and more common in California, and has, to a certain extent, superseded the use of washes, especially against the Red Scale (*Aspidiotus aurantii*). This is largely due to the fact that recent experiments, carried on through Mr. Ocquille, have resulted in a great cheapening of the process. The expense has been reduced one-third, and the bulky machinery mentioned in my report for 1887 has been, for the most part, dispensed with. It has also been found that the use of the process at night is safer and more beneficial, in that it lessens the effect of the gas upon the foliage.

The repeated importation of scale insects from Florida into California has attracted much attention. The species concerned are principally the Purple Scale (*Mytilaspis citricola*), the Long Scale (*M. gloverii*), and the Chaff Scale (*Parlatoria pergandei*). The fact that these insects must have been repeatedly imported into the State in past years without obtaining a foothold has been used as an argument against a quarantine, and a great deal of discussion on the subject has been had in the California papers. From my own observations in the State I am convinced that where the proper conditions of shade and moisture obtain there is no reason why these scale insects should not get a foothold, but that they will probably die out in the hotter, drier, and less shaded localities. An agent who was sent to Pomona to investigate certain newly planted orange groves of Florida trees, found that while the trees were planted a year previously, and had been dipped according to custom there in a caustic solution, every tree examined by him bore a few specimens of the purple scale. The excitement on this subject in California has been fostered by the claims of rival nurserymen engaged either in the importation of Florida stock or dealing in varieties grown at home, and from such contrary claims from persons prejudiced by their business interests it is difficult to extract the truth. A rigid quarantine not absolutely prohibitive were wisest, for great injustice might be worked by absolutely prohibitive restrictions. Careful inspection and thorough treatment, if they could be guaranteed, would prove an effective safeguard, but it were unsafe to trust to them without a rigid quarantine.

I have commenced a series of experiments upon the black scale (*Lecanium oleae*), a species which, ordinarily occurring upon the olive, has long damaged citrus fruits in California. The horticulturist of the Wisconsin Station, Mr. E. S. Goff, has modified the Nixon pump by adding a tube so that kerosene may be drawn from one receptacle and a mixture of soap and water from another, thus forming a mechanical mixture in the act of spraying. This modification, at the request of Prof. Henry, I have had tried in this series of experiments, and although it is too early to state the results, it may be said that so little time and labor are required in preparing a stable emulsion that this mechanical substitute will probably not come into general use. In this connection, it may be observed that the formulae recommended by some of our most voluminous writers are very misleading and are calculated to produce only a mechanical mixture more or less unstable. The use of kerosene temporarily combined with water or soapsuds by mechanical means dates from many years back. It was a favorite remedy of my friend Thomas Meehan, who urged it in 1871 in the *Gardener's Monthly*. It was experimented with by others, and I used it successfully in 1872 against an undescribed Lecanium on Australian pine, as also against aphides on the place of Mr. Julius Pittman of St. Louis, and in 1874 and 1875 against the congregated young of the Rocky Mountain locust. But the true and stable kerosene emulsion, which now forms one of the most satisfactory and widely used insecticides, and which requires two parts of the oil to one of the emulsifying agent, violently churned until a stable, butter-like emulsion results, was the outgrowth of my efforts in the investigation of the cotton worm, the milk having been first suggested in 1878 by the late Dr. W. S. Barnard while working at Selma, Ala., and the most satisfactory formula in 1880, from experiments which I had continued over two years by Mr. H. G. Hubbard on orange trees.

## The Hop Fly or Louse.

One of the most interesting facts of the year has been the occurrence of the hop fly (*Phorodon humuli*) in the extreme Northwest, especially in Oregon and Washington, so soon after my note of warning as to the danger of its introduction to the hop-fields of that section, and the need of precautionary measures that might prevent such a calamity. The soil and climate

of Southern Oregon seem particularly adapted to the growth of the hop, as it is already the leading crop in Lane, Marion, Polk and other counties.

There can be no doubt about the species, because Mr. F. L. Washburn, the entomologist of the experiment station, has given it some attention, and I have also received specimens from him and from Mr. A. Todd of Eugene, Or., as also from Mr. Giles Farmln and Mr. G. M. Stratton of Puyallup, Wash.

Mr. Washburn, from the fact that it has been noticed that hops were sometimes not so much affected in the immediate vicinity of plum trees as some distance away, and from the further fact that some of the growers reported that they never saw the insect on the plum, indicates that there must be a different state of affairs in Oregon, so far as the life-cycle of the insect is concerned, from that which prevails in the Eastern States and in Europe. Absolute and experimental proof of facts obtained after long and persistent investigation should never be lightly questioned. It is by no means an uncommon experience that hop plants in the immediate vicinity of plum trees are not more affected than, or as much as, others at a distance, and this may depend on the direction of the wind or on local circumstances, or on the variety of plum, whether wild or cultivated. I have examined in vain certain cultivated plum trees for evidence of *Phorodon*, whereas I have invariably found it upon other varieties in the same vicinity. *Phorodon humuli*, in common with all other aphides, preferably chooses, when migrating, certain genial days, and often fills the air, flying great distances. In perfectly calm weather the migrants settle almost everywhere, but they are easily affected by the least breeze and are wafted in different directions. The invasion of a hop-yard may be from plum trees miles away to windward, and we may depend upon it that the species will migrate to and from *Prunus* in the Northwest as it does in the East.

## Phylloxera Experiments in California.

On the subject of direct remedies the value of the kerosene emulsion for this purpose has not been properly realized in France, because of the relatively high price of petroleum in her grape-growing Departments. A series of experiments which I made in 1883 showed conclusively its great value for this purpose, as it not only destroys the insect in all stages, but also stimulates root growth.

In this connection I have recently had a series of experiments made through Mr. A. H. Koebele's agency, in the Sonoma valley, California, to ascertain the effect upon the phylloxera of certain of the resin washes which proved so valuable when used against the fluted and other scale insects. The results have been quite encouraging and the experiments have already shown that in the use of those washes we have a valuable addition to the underground remedies. Soaps were made by the use of bicarbonate of soda, sal soda, and caustic soda, each mixed with resin. In the earlier experiments the earth was removed about the base of the vine to a depth of 6 inches and for a diameter of 4 feet. Ten gallons of the mixture were poured into each hole and found to penetrate from 12 to 16 inches or from 18 to 22 inches from the original surface of the ground. Most of the insects, as also the eggs, were destroyed to a depth of 16 inches. In the later experiments the holes were made only about 2 feet in diameter, and nearly, if not quite, the same results were obtained with half the amount, or 5 gallons of the mixture. The plan, which I have previously adopted for the application of insecticides to underground insects, of washing the mixture in with pure water was tried with good success. Soon after the first application 5 gallons of water were added, and 5 gallons more the following day. This would indicate that in the spring, when rains are frequent (occurring almost every day) in the Sonoma valley, only a small amount of the mixture need be applied, and the rains will do the rest, as examination has shown that up to a certain point each application of water intensifies and extends the action of the original insecticide. The best soap was made with bicarbonate of soda, but the results of that made with caustic soda are so little inferior, while the price is so much less, that the caustic soda and resin soap mixture is the one which I would recommend. The formula which was found preferable is as follows:

	Pounds.
Caustic soda (77 per cent) .....	5
Resin .....	40
Water to make 50 gallons.	

The soda should be dissolved over a fire in 4 gallons of water, then the resin should be added and dissolved. After this the required water can be added slowly, while boiling, to make the 50 gallons of the compound. To this water may be added at the rate of 9 gallons for 1, making 500 gallons of the dilute compound, sufficient for 100 large vines, at a cost of only 84 cents, or less than a cent a vine.

## Introduction of Parasites and Predaceous Species.

The success which has attended the introduction from Australia of *Vedalia cardinalis* has been phenomenal. Indeed, few who have not kept in knowledge of the reports and the actual condition of things can appreciate the remarkable character of the results, not only because of the brief period required therefor, but because of the thoroughness of the work of the little ladybird, and the moral and financial

benefit to orange-growers which have followed in its wake.

The striking success of the experiment has served to fix attention, not only of entomologists, but of fruit-growers and farmers, to this mode of dealing with injurious insects, and there is no question but that the cases in which the experiment may be more or less successfully repeated are numerous. Let us hope, therefore, that the moral effect will be as great as its practical effect in opening up means and ways in the future, as it should serve to remove the disposition to deride any expenditure having such results for its object.

During the year, I have endeavored to return the favors received from Australia and New Zealand, by sending there some of the natural enemies of the codlin moth, and from last accounts, though jeopardized by the action of the custom-house authorities, the experiment promised success, so far as a species of *Raphidia* from California is concerned. I have also endeavored to introduce some of the parasites which attack the Hessian fly in Europe, and which do not yet occur in this country. These efforts have been made by correspondence, for you will be surprised to learn that the restrictive clause in the appropriations to the Department of Agriculture for entomological work, which limits traveling expenses to the United States, is still maintained in the face of the Vedalia experience, where by the expenditure of \$1500, many millions were saved. The maintenance of this restrictive clause in the last appropriation bill, under these circumstances, is a travesty on legislation, and all the more remarkable because done by the Senate in opposition to the House, and the recommendations of both the Secretary and Assistant Secretary of Agriculture.

## The Field of Economic Entomology.

We have been able to but take a paragraph from an address which is one of the most notable papers of its kind ever produced. A full copy can be found in *Insect Life*, Vol. III, No. 5, which can no doubt be had by application to the Department of Agriculture at Washington. We give, however, the following general paragraph concerning economic entomology:

It is a field that some of us have cultivated for many years, and yet have only scratched the surface; and if I have ventured to suggest or admonish, it is with the feeling that my own labors in this field are ere long about to end and that I may not have another occasion. At no time in the history of the world has there, I trust, been gathered together such a body of devoted and capable workers in applied entomology. It marks an era in our calling, and looking back at the progress of the past 15 years, we may well ponder the possibilities of the next fifteen. They will be fruitful of grand results in proportion as we persistently and combatively pursue the yet unsolved problems and are not tempted to the immediate presentation of separate facts which are so innumerable and so easily observed that their very wealth becomes an element of weakness. Epoch-making discoveries result only from this power of following up unwaveringly any given problem or any fixed ideal. The kerosene emulsion, the cyclone nozzle, the history of *Phylloxera vastatrix*, of *Phorodon humuli*, of *Vedalia cardinalis*, are illustrations in point; and while we may not expect frequent results as striking or of as wide application as these, there is no end of important problems yet to be solved, and from the solution of which we may look for similar beneficial results. Applied entomology is often considered a sordid pursuit, but it only becomes so when the object is sordid. When pursued with unselfish enthusiasm born of the love of investigation and the light of benefiting our fellow-men it is inspiring, and there are few pursuits more deservedly so, considering the vast losses to our farmers from insect injury and the pressing need that the distressed husbandman has for every aid that can be given him. Our work is elevating in its sympathies for the struggles and suffering of others. Our standard should be high—the pursuit of knowledge for the advancement of agriculture.

**BLOCKS OF COMPRESSED WOOD AS A SUBSTITUTE FOR BRICKS.**—If we may believe German journals, brick and terra-cotta are no longer to stand alone as the best fire-resisting building materials. A new hotel, which has just been put up at Hamburg, is described as being built entirely of blocks of compressed wood as hard as iron, and by subjection to certain chemical processes rendered absolutely proof against both fire and the attacks of insects. If the claims of the inventor are well founded, he is clearly wasting time in the Fatherland, and should come over to us with his invention without delay and reap the reward of his labors. A process for making wood fire proof is just one of those things which American builders have been hankering after for some decades past.

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## About Obtaining Patents.

## Patents are Virtually Contracts.

The Patent Law provides that in case a patent, which is the evidence of the contract, is not executed in compliance with the requirements of the law, it may be annulled and rendered void. Hence it is of the greatest importance to every inventor that his patent or contract be skillfully and accurately drafted, in order that it may afford him complete protection for his invention during the life of his patent.

## How to Procure a Patent.

To avoid all needless delay, however, and secure patents at the earliest moment practicable, inventors will do well to forward a model, drawing or sketch, with a plain, full and comprehensive description of their invention (stating distinctly what the particular points of improvement are), with \$15 as a first installment of fees. If the improvement appears to us to be novel and patentable, the necessary papers for an application for a patent will be prepared immediately and forwarded to the inventor for his signature. When he receives the application and finds it duly prepared, he will carefully sign and return the same plainly addressed to us, with postal money order or express receipt for our own fee. The case will then be promptly filed by us in the Patent Office, and vigorously prosecuted to secure the best patent possible. (This course is the most expeditious and satisfactory, as no time is lost in transmitting correspondence relative to the preliminary steps.) When the patent is allowed, the inventor will be duly notified, and on sending the final Government fee of \$20 to us, we will order the issue of the patent, and forward the same as soon as it is secured from the Patent Office.

The payments are thus divided and made easy. We make no pretense of doing cheap work, in order to entice custom, nor do we afterward make additional charges to bring the bill up to a fair compensation. We do our work honestly and thoroughly, and we never give up a case so long as there is a chance of obtaining a patent. The Agency charge, including drawings, rarely exceeds \$40, and for this we do all we can without appealing the case.

## Models and Drawings.

Models are now seldom required by the Commissioner of Patents, and generally only in intricate cases. Perfect drawings of practical working machines are more satisfactory to the Patent Office than the old cumbersome system of storing up an immense bulk of countless models.

Drawings or sketches, sufficient to illustrate the invention clearly, with a description that will enable us to make a full set of perfect drawings for the Patent Office, is all that we require. A model will answer our purpose as well, however, in cases where the inventor can more easily furnish it.

## Secure a Good Patent.

The value and even the validity of a patent often depends on the character, clearness and sufficiency of its drawings. There are thousands of existing patents in which the improvements are but partially or poorly illustrated in the drawings. When an attempt is made to dispose of such patents, the vagueness and defects of the drawings often prejudice capitalists and manufacturers against the invention, while in reality it may be of great value, and would meet with ready sale had it been skillfully, completely and artistically portrayed. In all cases prepared by us, the drawings are made under our personal supervision, by skilled draftsmen in our constant employ, and every precaution is taken to have the invention fully and clearly shown by different views, so that the improvement will be readily understood by the Examiners in the Patent Office, and comprehended by the public when the patent is granted.

## Advantages to Inventors on the Pacific Coast.

The firm of DEWEY & Co. has edited and published the MINING AND SCIENTIFIC PRESS continuously since 1860—a period of 30 years. Few agents, who are still engaged in the business, have had so long-extended practice in patent soliciting. The members of the firm give personal attention to the applications entrusted to their care; and their familiarity with inventions and with local affairs in the Pacific States and Territories enables them to understand the wants of inventors on this coast more readily and thoroughly as we believe, than any other agents in America. Thus there is saved a great deal of the time which ordinarily, when distant agents are employed, is wasted in preliminary writing back and forth.

This happy continuation of long business experience together and wide connections has placed our firm in a position unquestionably most fortunate for affording inventors prompt and reliable advice, and the best facilities for securing their full patent rights with safety and dispatch at uniformly reasonable rates.

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## Caveats.

A Caveat is a confidential communication made to the Patent Office, and is therefore filed within its secret archives. The privilege secured under a caveat is that it entitles the inventor to receive notice, for a period of one year, of any application for a patent subsequently filed, which is adjudged to be novel and is likely to interfere with the invention described in the caveat, and the inventor is then required to complete his application for a patent within three months from the date of said notice. Caveat papers should be very carefully prepared. Our fee for the service varies from \$10 to \$20. The Government fee is \$10 additional.

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Inventors who have rejected cases (prepared either by themselves or for them by other agents) and desire to ascertain their prospects of success by further efforts, are invited to avail themselves of our unrivaled facilities for securing favorable results. We have been successful in securing Letters Patent in many previously abandoned cases. Our terms are always reasonable.

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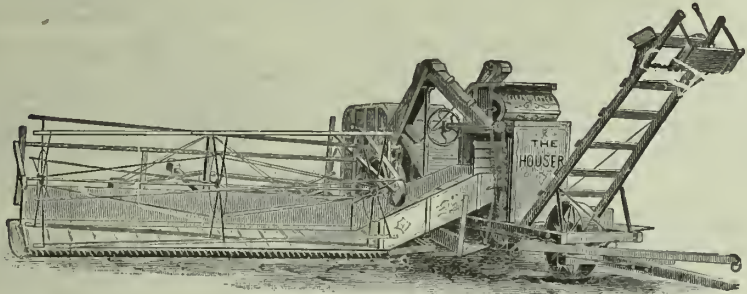
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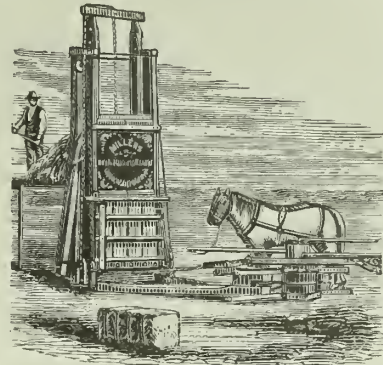
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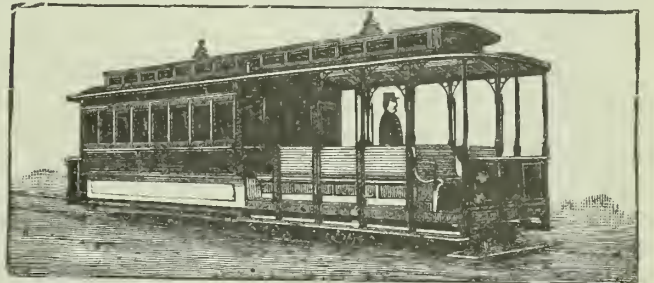
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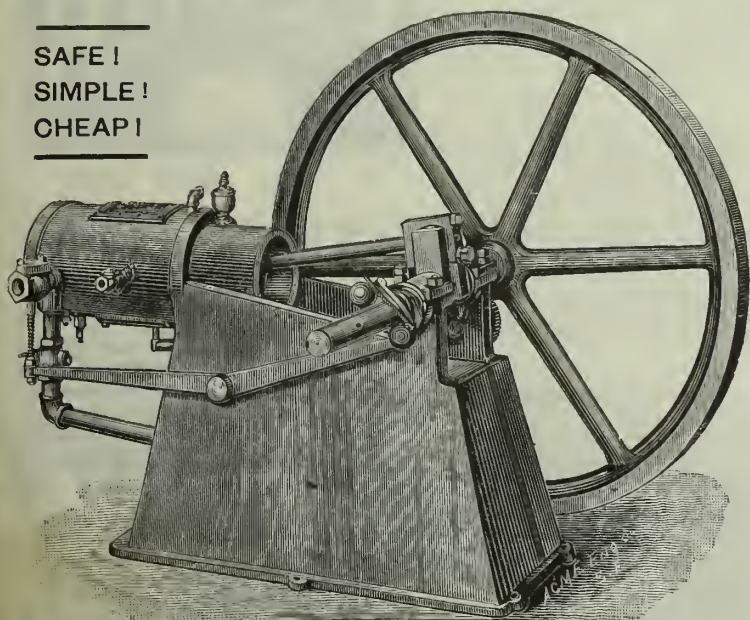
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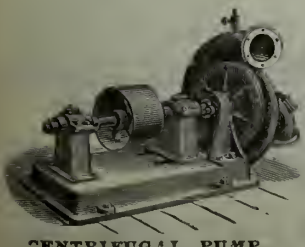
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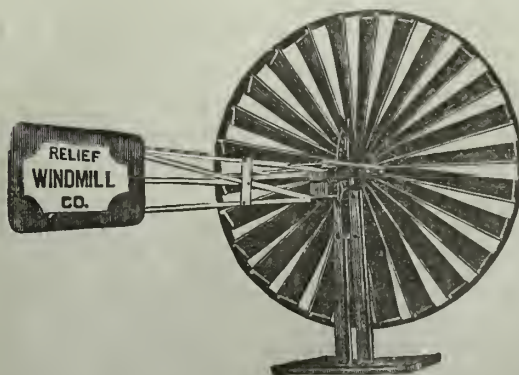
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## FLORIST AND GARDENER.

### The New Lawn.

[By EMORY E. SMITH before the California State Floral Society.]

The word "lawn" was derived from the old English "laund" or "lawnd," which was especially applied to untilled tracts of land lying between woods. Modernly, the word is applied to grass lands, large or small, which are kept especially for ornamental purposes. England may be termed the home of the lawn, because in her mild, moist climate, the sod formed is thick, and presents the year around verdure and luxuriance, which has been the despair of the gardener in other parts of the world. Some of the lawns in England are said to be 2000 years old and are yet in fair condition; but I am not able to vouch for the truth of the statement. In most parts of the United States, a good lawn is only retainable by the most continuous watchfulness and care. In the dry climate of California this is particularly true, the most thorough preparation and most constant watering and care being necessary to keep a smooth, green sod.

There is nothing in nature upon which the eye rests with more gratifying satisfaction than upon a well-kept plot of green grass. But few improvements have been made in lawn-making of late years; but, following the adornment of all things horticultural, lawn-making has recently taken a big stride, which bids fair to revolutionize existing methods, giving us finer and more enduring lawns, and placing them upon a par with those of England. The use of seeds and sods is done away with entirely, and "pedigree" grass roots from sterilized beds are planted. In a few months a strong sod is formed, which is entirely of one variety of grass, and is absolutely free from weeds of all kinds.

The method of procedure is as follows: A piece of thrifty sod which has proven adapted to the locality is taken up and closely scrutinized, every foreign root and plant being carefully removed. The grass roots are then divided into small pieces and are planted several inches distant from one another in beds three or four feet square, the surface soil of which has been sterilized by heating it in an oven or otherwise. In a few weeks the grass plants have grown together, forming a magnificent sod, the like of which cannot be imagined by one who has never seen it. The ground designed for the lawn is now prepared by deep plowing, or, if the place is small, spading, and is then carefully leveled and an application of chemical fertilizer is made.

In a few days the first crop of weeds will have made their appearance. These are raked or harrowed out, and likewise the second crop, which will soon follow.

Most of the weed seeds in the ground, having germinated, are done for. The lawn is now again stirred on the surface, smoothed and marked off. The sods from the sterilized beds are taken up and divided into small pieces, which are planted a few inches apart in regular order; if even eight or ten inches distant, they will quickly cover the intermediate spaces and will crowd out any weed or foreign growth that may start. Grass so treated seems to have imparted to it a vigor and luxuriance never seen in ordinary lawns, and it is very difficult for foreign growths of any kind to secure a foothold in a lawn so made.

Several of the Eastern Government Experimental Stations, as well as private parties, have successfully inaugurated what they choose to term "pedigree grass planting," and the superintendent of Central Park, New York, talks of replacing the immense lawns of that park with pedigree grass. He even proposes to devote a large greenhouse to the purpose of propagation, so that the work of preparation can go on without any intermission during the winter months.

### The Camellia.

[By MISS E. S. RYDER before the California State Floral Society.]

The Camellia, the appearance of which is familiar to us all, with its brilliant blossoms and shiny foliage, belongs to the natural order Ternstroemiaceae, and is a native of China and Japan, where it has been cultivated from time immemorial. It is also indigenous to the north of India. It was first imported into Europe from China by a Moravian Jesuit named Geo. Joseph Camellus, or Kamel, about the year 1739. He traveled in Asia and wrote of plants. In honor of him his name was given by Linnaeus to the shrub camellia.

The camellia is closely allied to the tea plant, and some horticulturists have been in favor of uniting them. One variety, the Camellia Sasanqua, known as Sasanqua Tea, is cultivated in China for its flowers, used in flavoring certain sorts of tea.

In its natural state the wild camellia has single red blossoms and that description of the plant is much used by gardeners as stock on which to graft the many fine varieties produced by florists in Europe and America through hybridizing. The single sorts are produced by seed. The plant is also propagated by cuttings and layers.

The best known and most general favorite is Camellia Japonica. The most hardy and one

of the most beautiful Camellias is the Reticulata, from which many others in cultivation are partly derived. One variety, the Camellia Oleifera, is extensively cultivated in the southern part of China for its seeds, from which an oil is extracted after boiling, similar to olive oil, used in food and domestic economy generally by the Chinese. The seeds of nearly all the species yield this oil.

The plant does not need heat, thriving best in a temperature a little above freezing point, but it cannot bear frost. Free access of air is of great importance, and a liberal supply of water, but not so much as to keep the soil soaked after the needs of the plant are supplied.

They are grown best in well-drained borders, under glass. An attempt to cultivate Camellias as window plants in pots generally results in disappointment, the roots not liking such close confinement, and there is apt to be too much heat or an excess of water, causing the buds to fall before opening. The best soil for Camellias is a loose mold composed of black loam, peat and sand.

### Malvaceae or Mallow Family.

[Read by EMIL KELLNER before the State Floral Society.]

Hibiscus, Rosemallow (ancient name of obscure origin)—Flowers showy, usually large, blooming in summer and autumn, and under glass oftener. An extensive genus comprising about 150 varieties, species of store and greenhouse plants, or hardy herbs, shrubs or trees, natives of the most part of tropical regions, but occurring also in temperate ones. Flowers variable in color, and usually showy leaves, variable, often partite.

#### Cultivation of Hibiscus.

Store or warm greenhouse species of Hibiscus succeed best either in large pots or when planted out under glass. A compost of peat and fibry loam not broken too finely, in about equal proportions, with the addition of a little charcoal and sand, will suit them admirably. Those grown for their flowers should be restricted and kept tolerably dry through the winter. In the spring, they require a little cutting in and starting in a brisk, moist heat; afterward applying plenty of heat and water throughout the summer.

Some of the species, which succeed in greenhouses all the summer, will require warmer quarters in winter. They are propagated from seed and by cuttings inserted in a close frame in spring. Some of the varieties of Hibiscus:

*H. Africanus*, from Africa; *H. Cameroni*, from Madagascar; *H. Elatus*, from West India; *H. Coccineus*, from Scarlet marshes of Florida and Georgia; *H. Huegelii quinquerolnerus*, Baron Huegel's fine spotted, from Swan river; *H. Marmoratus*, marbled; *H. Miliaris*, rose-colored, United States; *H. Ferox*, fierce, yellow, New Grenada; *H. moschentos*, white, with a purplish center, hardy; *H. pendiculatus*, deep rose-red greenhouse; *H. radiatus*, rayed, yellow petals; inner part deep crimson, store shrub India and China; *H. rosa sinensis*, Chinese rose, large, single; height, 10 to 15 feet; China and Japan store plant; *H. brilliantissimus*, very brilliant, 5 1/2 inches across, deep crimson; *H. Culleri*, Culleri, buff yellow with a crimson-scarlet base; *H. Cooperi*, Coopers, scarlet-plashed and blotched, with olive green, creamy white and crimson, and margined with a broad and irregular border of reddish carmine; *H. fulgidus*, shining flowers five inches broad, carmine scarlet; *H. miniatus semiplenus*, half double vermillion; *H. vivacious*, lively, brilliant crimson scarlet, five-inch flowers; *H. roseus*, rose, naturalized in marshy spots in France, hardy, which originated probably in the new world; *H. shizopetalus*, cut petaled, from Syria, brilliant orange-red, two-inch flowers; *H. zebrinus*, zebra-striped, 3 1/2 inches diameter, scarlet, edged with yellow; *H. speciosus*, showy, a synonym of coccineus; *H. splendens*, splendid, rose-colored, sometimes 6 to 7 inches long, 12 to 20 feet high, Australia; *H. syriacus*, Syrian, hardy deciduous shrub, of which there are a great many varieties; Rose of Sharon or Althea, *H. Aurantiaca*, large, double, orange-colored flowers; *H. Collieri*, buff yellow, with a crimson scarlet; *H. Denisonii*, nearly a pure white, slightly tinged with rose; a large single flower and very beautiful; *H. Lambertii*, single flowers of the richest crimson-scarlet; dark-crimson at the petals; very large and showy; *H. Miniatus semiplenus*, semi-double flowers of a brilliant vermillion scarlet; petals waved and recurved, the flowers noticeable for the absence of formality, but are very handsome; *H. Rubra* magnificent double variety; large, red flower; *H. Subviolaceus*, flowers enormous; semi-double; flowers clear carmine, tinted with violet. Probably the largest in the Hibiscus family, and a free bloomer.

In California, according to Prof. Green's "Flora Franciscana," there are native; *Hibiscus Dioscorides*, stout herbs, with large and showy axillary and solitary flowers; *Hibiscus Californicus*, flower yellowish-cream color, with dark-purple center; found from the lower San Joaquin river as far north as Butte county.

*Hibiscus Trionum* Bladder Ketmia or Flower of an hour; *Hibiscus esculentus*, Okra or Gumbo with yellow flowers resembling cotton flowers, a very healthy mucilaginous vegetable used in the South very much, and also grown in California.

The Abutilon also belongs to the malvaceae family; so does Gossypium herbaceum, common cotton of commerce, Gossypium barbadense,

Sea Island cotton and Gossypium arboreum, tree cotton.

In the Southern States a cotton field in bloom presents a beautiful appearance. The flower is like a yellow Hibiscus flower and changes from yellow to red and falls off, and forms the ball in which the cotton fiber is produced.

The cotton is the most valuable fiber plant of the United States. The State of Texas alone produces 1,000,000 of bales averaging from 500 to 600 lbs. valued at \$50,000,000. The seed of cotton is manufactured into oil which is used for cooking, painting, and also adulterating olive oils. The cottonseed meal after extracting the oil is used as a fertilizer and food for cattle in England and the United States. The value of a ton in Liverpool is about \$35.00. Cottonseed meal is also a fine fertilizer for flowers, or any thing else, as it contains a large amount of nitrogen. The Sea Island Cotton is mostly raised in the Islands of the Gulf of Mexico. The staple of the fiber is longer, about four times as long, as of common cotton.

Only a small amount of this is raised in the United States. Tree cotton is only raised for ornament.

### Fruit Outlook at the East.

A recent cold snap in northern Indiana, says the Cobden Ills., *Fruit Growers' Journal*, did great injury to peach buds in that section with slight injury to other fruits. Fruit outlook in Marissa, Ill., is good, though snow fell heavily there on March 12th. The fruit trees have commenced to bloom in Fruitland, Tenn., and but little injury has been done. In Austin, Ark., the prospects are excellent, but if it keeps cold, strawberries will be late. It is feared much damage has been done the crop in the vicinity of Dallas, Tex., the rain freezing as it fell on March 13th. From Walnut Hills, Ill., comes this: Fruit prospects at this place are very good at this writing. Strawberries went into winter in fine shape. Apples, peaches and cherries good, blackberries and raspberries not a full crop. In the locality of Villa Ridge, Ill., the black raspberry has suffered somewhat from the past winter, and the tops of many canes are winter killed. A correspondent from Decatur, Mo., says that reports from all parts of the peach belt in that State deny that the recent cold weather has materially injured the crop prospects. The buds did not mature sufficiently to be seriously damaged by the sudden change in temperature, and are so plentiful that, with a loss of one-half, there would yet be a larger yield than for many years. There was a heavy hail storm in Jackson, Miss., on March 7th, some of the stones being as large as marbles. Considerable injury was done the fruit crop and gardens. The continued wet weather discourages farmers very much, and under the most favorable conditions from now on, planting will be from two to four weeks late. A writer from New Orleans gives the following: The freeze on February 26 did considerable damage to the prospective fruit crops in this section. On Saturday afternoon large hail fell for a few minutes and Saturday night the rain fell in torrents for several hours, causing greater damage than had been done in many years. Last night there was another freeze, this time preceded by rain, which finished up the peach blossoms and very few peaches, if any, will be produced this season. Last year the peach crop was lost by a freeze on March 1. The above-noted facts will apply with equal force to a large number of market gardens along the line of the Illinois Central Railway within a hundred miles of New Orleans.

**WEALTH IN SEWAGE.**—The city of Worcester, Mass., has probably the best arrangement for an economical disposition of city sewage of any other city in the world. After considerable experiment the system is now considered as demonstrated to be an unequalled success. The sewage is collected in large tanks, and when the work of chemical precipitation has been accomplished, the effluent, which is discharged into the Blackstone river, is so pure that chemists say it might be drunk with safety. The system is in use in European cities and the general verdict there is that its efficiency is unquestioned and its administration economical.

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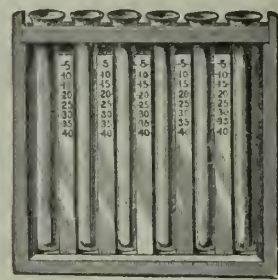
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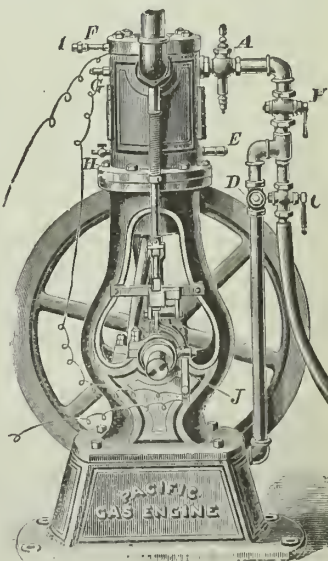
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## GOOD HEALTH.

## Cure for Catarrh.

EDITORS PRESS:—Thinking the enclosed recipe, which proved so valuable to a friend of mine, may be of use to some of your readers, I have copied it as she gave it to me:

"Take one part pulverized saltpeter and two parts pulverized sugar. Dissolve one-third teaspoonful in one-third small cup of water and syringe the nose three to five times a day, according to the severity of the case. Continue for weeks or months if necessary."

Said a lady to me: "I had catarrh in the head so I could scarcely breathe through my nose, and I tried this treatment for several months and it effected a complete cure." It is beneficial some-times in cases of *la grippe*.

National City. ROCK MAPLE.

**TO RELIEVE AN OVERWORKED BRAIN.**—A Swiss doctor says that many persons who extend their mental work well into the night, who during the evening follow attentively the program of a theater or concert, or who engage even-ings in the proceedings of societies or clubs, are awakened in the morning or in the night with headache (the *Sanitary Inspector*). He is particular to say that he does not refer to that headache which our Teutonic brethren designate *Katzenjammer*, that follows certain convivial indulgences. This headache affects many persons who are quite well otherwise, and is due in part to the previous excessive work of the brain, whereby an abnormal flow of blood to that organ is caused; in part to other causes, for example, too great heat of room, contamination of the air with carbonic acid, exhalations from human bodies, and tobacco smoke. For a long while the doctor was himself a sufferer from headache of this kind, but of late years has wholly protected himself from it by simple means. When he is obliged to continue his brain work into the evening, or to be out late nights in rooms not well ventilated, instead of going directly to bed, he takes a brisk walk for half an hour or an hour. While taking this tramp, he stops now and then and practices lung gymnastics by breathing in and out deeply a few times. When he then goes to bed, he sleeps soundly. Notwithstanding the shortening of the hours of sleep, he awakes with no trace of headache. There exists a clear and well-known physiological reason why this treatment should be effective.

**THE REAL CAUSE OF DEATH.**—The most common cause of death is fat and lime. Microbes are mere accessories in causing death. Take myself as a case in point. Once, when younger, I could lift my leg on a level with my head, writes a doctor in the *St. Louis Globe-Democrat*. It is an effort for me now to get it half that distance. Lime deposits are the cause of it. It is only a few days since that I performed a post-mortem on the remains of a distinguished journalist who died in this city at an advanced age. When I reached his heart I took my knife and on rubbing it over that organ it sounded as if it were being rubbed over a rough stone. The heart was fairly encased in lime. I have now under my care a distinguished literary man—a nonagenarian. He is going to die. (The patient has since died.) His death will be caused by abnormal deposits of lime. There is no mystery in death. It is as natural for man to die as to be born. We are born, we develop, we grow ("grow" is right) and we die. Is there anything strange about that? Man is like a tree. He lives his time, then withers, decays, dies. When we shall have learned everything we shall be wise enough to prolong the life of man, but by reason of the materials of which the body is composed he must die.

**CANCER AND SMOKING.**—Since the death of President Grant, a constant smoker, cancer of the tongue and cigar smoking have been closely associated in the public mind. Surgeons of experience find that the disease is far more frequent in persons who have been in the habit of smoking. The disease appears to be about six times more common in males than in females. The affection known as "smoker's patch" is common. It is a slightly raised oval area on the forepart of the tongue, a little to one side of the middle line, just where the end of the pipe rests, or where the stream of smoke from the pipe or cigar impinges on the surface of the tongue. The patch is usually red, but it may be bluish or pearly white. It lasts for years, but tends to spread over the surface of the tongue if the irritation be continued. When diffused in this fashion, it constitutes leucoma of the tongue. Leucoma is certainly a predisposing cause of cancer. The smoker should never leave a "patch" untreated, and should avoid rough mouthpieces and brands of tobacco which cause irritation of the tongue.—*S. L.*

**NATURE'S TRUE TONIC.**—One of the advantages of light gymnastics is that the sick and convalescent can make what appear to be trifling efforts, and by them, in time, be restored to active health. If too feeble to be practically able to make but little exertion, try what are known as deep-breathing movements. Lie flat upon the back, take as long and as deep breaths as possible, and while the mouth is closed, slowly throw the arms up in front and then at the sides. Rest for ten minutes. Try again the same inhalation and exhalation of

air, the latter being pure and fresh. After a while attempt the same, sitting up. These exercises can safely be taken by the sick one, every day, several times, and the whole muscular system will be improved, just as if some revivifying tonic had been given, a far better one than any charged with alcohol or some like stimulant.—*Ladies' Home Journal*.

**CARBOLIC ACID FOR BOILS.**—A German medical journal asserts that incipient boils may be readily cured by the injection of a three-per cent solution of carbolic acid. In order to effect a radical cure and prevent suppuration, the injection must be made early. If a boil has already begun to discharge, the only effect of the injection will be to hasten the cure and prevent the formation of deep scars.

## Wayside Notes in Contra Costa.

EDITORS PRESS:—Having recently returned from a trip into Contra Costa county, I send a few notes thereof. Left Oakland Thursday P. M., 19th ult., experienced some ups and downs after leaving Claremont avenue to Lafayette. Out in a pleasant valley among the hills found hospitable entertainment with an old subscriber to the *RURAL*, Mr. Nathaniel Jones, a pioneer indeed, who, with his family, came to California in 1846, narrowly escaping the fate of the "Donner" party, being in their company on the day previous to that on which they encamped during a violent snowstorm where so many of the former party perished. Mr. J. is President of the Walnut Creek Alliance, a flourishing body of over 30 members.

Near the road leading to Walnut Creek, I called on J. W. Jones, a subscriber, his residence being on a slightly elevation about one-fourth of a mile from the road. At Alamo still another Jones was found, about a mile off the road at the foot of the hills, also a subscriber, who kindly accommodated me over night.

During Sunday, a very windy day, I was comfortably housed with Mr. Reel, near Walnut Creek.

Next day, took a trip out to Ygnacio valley, where nearly seven years ago I met an accident in crossing a steep gulch, dislocating my ankle, but found that the road across it was now fenced up. Came into Concord in the evening and put up at Mt. Diablo hotel.

On toward Martinez next day, stopping at ranches of Wm. Caven and Chas. Lobos, near town. The latter offers his place of over 200 acres for sale, well improved with different kinds of fruit and vines, the railroad soon to be running less than a mile distant.

Proceeded over a good road to Pacheco, once the scene of considerable business activity, but now in decadence, evinced by vacant and ruinous stores and warehouses. The writer in '52 navigated a square rigged brig of over 100 tons nearly to this point, and loaded hay, where now for many years no craft of any size could find depth of water to float in.

From here to Martinez, passed almost continuous vineyards on both sides the road, many small holdings being cultivated by Portuguese in vines and vegetables.

At night "came to" in a snug harbor, the well-improved place of Capt. Ingraham, who with wife and daughter has resided here about 15 years, has a fine vineyard and keeps 300 hens, whose appearance, as well as the place generally, indicate that the Captain now, as of yore, when he sailed on ocean's highway, believes in keeping things "ship-shape and Bristol fashion." Next morning I drove into Martinez, a mile distant, and out to the place of Prof C. F. Diehl, who has a hillside ranch, which he has been on and improved but two years; has 2000 young fruit trees and as many vines of table varieties now growing. He taught school in Philadelphia 42 years, but the health of his family requiring a change of climate, improvement in that respect has been found in this locality.

The gale of last Sunday night upset a small building on his place, turning it upside down, but his hired man, who slept in it, came out but little harmed, being of the sailor variety, probably clung to the keel until rescued. Passed another night at the Captain's, taking his subscription for *RURAL*, with which he can shape his course for the next 15 months.

Next day, after a rainy morning, visited "Hillgirt," the appropriate name of the picturesque place of John Swett, S. F. superintendent of public schools, about two miles out of town. His family reside here, his son, a N. S. G. W. and graduate of California University, managing the place; growing wine grapes and manufacturing the principal industry. Drove on to "Edgehill," the home of Judge Hogan, manager for J. L. Flavin of S. F.; also visited the fine places of Wm. Cluff and Mr. Upham, whose orchards promise to yield abundantly. Stopping over night at Commercial hotel, next morning went back to Walnut Creek, by a different road after leaving Pacheco, and on into the beautiful San Ramon valley, finding good quarters for the night at Alamo with Mr. Henry, who, though, he protested that he did not keep a hotel, obligingly accommodated me.

During the night, plenty of rain here which was snow on Mt. Diablo, clothing the summit with a mantle of white but little in keeping with his infernal character. A pleasant morning succeeded, and I continued my course southward, the face of Nature arrayed in her most beautiful adornment, through the fertile valley of some nine miles wide, bordered on

each side by hills and mountains covered with verdure, and the sunshine and shadows making pleasing contrasts on their rugged sides. Diablo, by 3 P. M., had resumed his more nasal and appropriate garb of somber hue, the snow having melted away.

This section of Contra Costa county is destined, ere long, to become better known than it is now. The S. P. R. R. Co. is building a road through it from Avon, four miles east of Martinez, to connect with the S. P. line at Pleasanton. The contract requires its completion to San Ramon by July 1st ensuing, and, with the exception of some bridge work, is already finished to Walnut Creek, to which point it is expected the cars will soon run.

Near Alamo, passed the young and extensive almond orchard of A. J. Hatch—the place called Almona—also next to that is Wm. Hemme's fine residence and apricot orchard, soon to yield an abundance of that delicious and profitable fruit.

Next comes Danville, four miles farther on, a pleasant town. Calling at the house of the village pedagogue, Mr. A. J. Young, a *RURAL* subscriber, found an old acquaintance in his wife, now suffering from *la grippe*. They have a beautiful home situated in a ten acre orchard of many varieties of fruit. Also called at W. Z. Stone's place of several hundred acres, largely improved in trees and vines. He is desirous of selling a portion thereof.

This section embraces the most advantages of climate, pure water, fertile soil and picturesque scenery that has come under my observation in much experience of travel in various parts of the State, which, combined with its proximity to the metropolis, and facility for shipment of produce on completion of railroad, ensures its utilization for residence in the near future to a much greater extent than it is now.

Remained about here a couple of days, visiting the Cook ranch, belonging to the estate of Seth Cook, a group of magnificent buildings situated on a sheltered plateau surrounded by hills.

A stock farm is maintained upon it, many fine specimens of the equine race being kept here, having a race track to exercise on.

Soon after leaving D. the extensive tracks of Dougherty & Llewellyn are passed. On the latter ranch is cultivated 3000 acres of wheat and barley, one field being seven miles across.

At Mr. Harlaus, two miles from Dublin, found hospitable entertainment over night. His ranch of about 300 acres being a little over the line into C. C. Co. and house surrounded by tasty grounds with two tame deer, as contented as though roaming their native hills. He also enrolled his name among *RURAL* subscribers.

Next day through Dublin to Livermore, thence home via Pleasanton, Sunol and the romantic Alameda canyon, crossing the fords of which, the water came up to the bottom of the buggy box, and completed a very pleasant and enjoyable trip. M. S. P.

## How to Make Large Soap Bubbles.

Children, and others, as well, may learn how to prepare a mixture for making the largest kind of soap bubbles, from the following receipt furnished by St. Nicholas:—Next to white castile, the mottled castile gives the best results. The soap being obtained, a friendly druggist must carefully weigh out 60 grains (for exactness in proportions is needful) for each ounce of water. That is, one drachm (according to the apothecary's weight of the old arithmetics), and when the weighing is done, and the obliging druggist thanked for kindness, the rest is plain sailing. A bottle with a sound cork is the next requirement. It must be large enough to hold three or four times the quantity of solution you wish to make. Do not prepare too much at one time; two ounces of soap solution will be a good quantity, and for this a six or eight ounce bottle will be the right thing. The bottle must be well cleansed and then well rinsed out with soft water—which, by the way, should be used for all the operations. All being ready, the soap is cut into fragments small enough to enter the bottle. Measure an ounce of water for each drachm of soap; this can be done with a teaspoon, eight spoonful making an ounce. Having poured the water and put the soap into the bottle, we have now to await perfect solution, which will happen in the course of two or three hours, if the bottle be put in a moderately warm place. Then add glycerine to the soap solution, the quantity varying with your ambition. I have found that one-half the volume of the solution gives excellent results; that is to say, to each ounce of water add one-half ounce of glycerine, measuring the quantities instead of weighing them in both cases. The bottle is now to be tightly corked and well shaken; then set aside for two or three hours more, and well shaken again. These alternate periods of rest and agitation should continue for a whole day. Finally, let the bottle stand undisturbed and tightly corked for twenty-four hours. Bubbles of great size and beauty may be blown with this solution.

Many people who pride themselves on their blue blood would be far happier with pure blood; but, while we cannot choose our ancestors, fortunately, by the use of Ayer's Sarsaparilla, we can transmit pure blood to our posterity.

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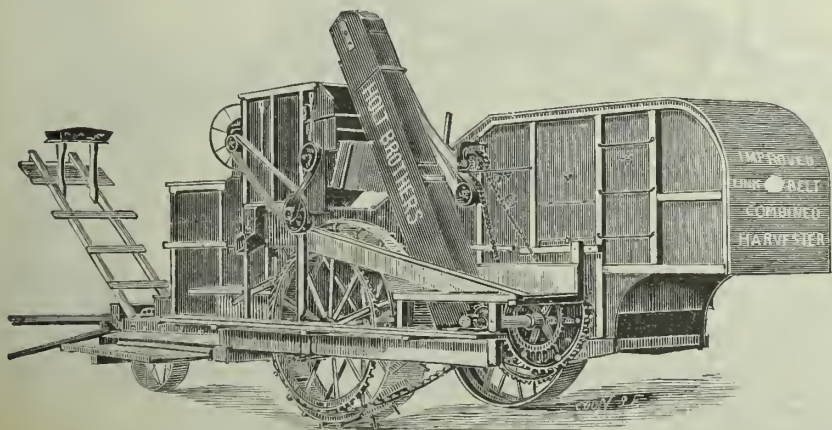
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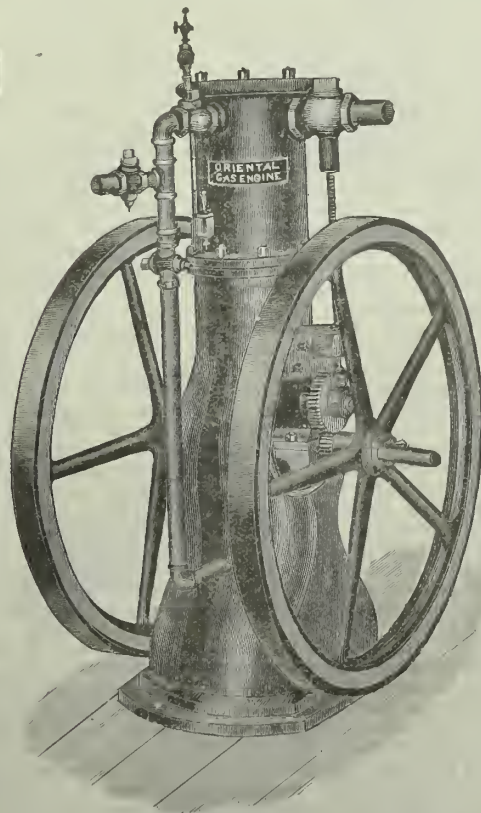
and Silver Medals and First Premiums too numerous to mention. In 4 styles and 12 sizes. VERMONT FARM MACHINE CO., BELLOWS FALLS, VT. Illustrated catalogue free. Manufacturers of and Dealers in Churns, Butter Workers, Butter Printers and Carriers, Cheese Vats, Cream Vats, Engines, Boilers, and all Dairy and Creamery supplies.

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## THE FIELD.

## Those "Abandoned" Farms.

We have received from time to time letters from our subscribers asking why so many farms in the Eastern States had been abandoned. The prevalent opinion among Western people seems to be that those farms have been abandoned because they were so exhausted that they were no longer of any value. This, we are convinced, is in the main erroneous. Other factors have been working to bring about this change. Immigration has passed by those States, being attracted by the more alluring prospect of a home on the free prairies of the great West, while the farmer boys of New England, in launching out for themselves, have found a 160-acre farm on Government land in some new State more to their taste than the cultivation of the harder soil of the paternal acres. In fact, this movement has but been in accord with a universal law of nature. As the atmosphere moves always toward the point of lightest pressure, so population, free as water, moves always toward the point of least resistance. The word "abandoned" is not properly applied to these farms as a whole, for many of them are still being used for various purposes, and their owners hold them at a fair market value. As was stated by the Commissioners of Maine, who were sent to make an investigation of these forsaken farms, the term "abandoned" is applied to those farms of which the owners are non-resident.

MAINE.—There are about 3000 abandoned farms in Maine, according to the returns made to the Labor Commissioner of the State. A great many of these farms are hilly and rocky, and have not proved profitable enough to their owners to induce them to remain upon them. Some have sold them for what they could get to their neighbors, to be farmed or pastured in connection with their own farms. Some have rented them or leased them on shares. Certainly such farms cannot be said to be abandoned. All lexicographers agree in defining "abandon" to mean "to forsake entirely; to give up all claim to." Abandoned farms would thus revert to the Government, and would become legally open to the homesteader. Such a condition of affairs does not, however, exist in New England. These farms are still held by their original owners, but many of them can be purchased at a moderate price. A Mr. Reynolds of Androscoggin county, Maine, writing in the *American Agriculturist*, in speaking of the exodus from these farms, says:

"Have these people bettered themselves by leaving the farm? A few perhaps have, the many probably have not. It would have been better for them to have remained on their farms. Most of these abandoned farms are well adapted to fruit raising, especially apples. Most of them have more or less orcharding on them, with many scattering trees which have come up spontaneously, and which, if grafted and cared for, would in a few years prove a source of income. With what trees there are already on these farms, and what might be planted each year without a great expense, nearly every one of them could be rendered profitable in a few years, so that fruit raising, dairying and sheep raising would afford a sufficient income to support the family.

In the State of Vermont a very exhaustive inquiry has been made into the causes and present condition of the unoccupied farms. There are a few exceptional places where the land is not and never was worth cultivating. In his report to the General Assembly the Commissioner says that of the lands once cultivated, but now unoccupied for farming purposes, the official reports show that a large portion are of good soil, not worn out, and can be made as fruitful as lands near by, which are successfully cultivated. In answer to circulars sent out to the different towns of Vermont, a gentleman in Jamaica, Windham county, that State, has compiled a list and description of farms in that town, from which are taken the following examples:

"1. A farm of 200 acres, fair buildings, good sugar orchard, plenty of wood and timber, has been one of the best in town, listed at \$810. 2. A farm of 135 acres, good buildings, sugar orchard, fruit orchards, in good state of cultivation, listed at \$700. 3. Another of 90 acres with good buildings, vacant only one year. Timber enough on this farm to pay for it. 4. Twenty-two acres, listed at \$225, with good buildings, vacant one year. 5. Ninety-seven acres, good buildings, sugar and fruit orchards, listed at \$700—a good farm. 6. Ninety acres, listed at \$765. This is a good farm in a high state of cultivation—must be sold. 7. One hundred and fifty-five acres—the finest location in town—has got to be sold." A gentleman in Essex county writes: "In the town of Norton are 20,000 acres of good farming land, and once, standing on a considerable portion, was spruce and hard wood timber, now taken off. This land is selling for \$5 per acre. The soil is blue clay—not sandy—some parts are stony, but the stones are small and easily removed. I have heard different men say that there is no better land for farming in the State."

The Commissioner, speaking of the causes that led to the desertion of many of these farms, says:

As early as the year 1837, a perceptible diminution of cultivated acres was observed. The year 1840 found the tide from the State fairly in motion. This was coincident with and

following the great panic of 1837. Our manufacturing of iron and textile fabrics, then in their infancy, were closed, business came to a standstill, and the home market for farm produce was greatly curtailed. The General Government offered public land to settlers at a nominal price, and new States held out extraordinary inducements. Many of our best citizens and most successful farmers thought it for their interest to avail themselves of the offers made. The movement west increased in volume, through the two decades immediately preceding 1860, and afterward, until it seemed as though portions of our State would become depopulated. The stage routes determined to a great extent the location of the early settlers, and the introduction of railroads tended to attract the people from the hill to the valley and to the railroad centers. Another factor pertaining to this subject made itself felt and was important in its results. The war of the rebellion called from the State to the Union army over 34,000 men—young, vigorous men. Thousands died on the field of battle; thousands were grievously wounded; while other thousands, with a little money saved, did not return to the homes of their fathers, but drifted to the village and city, or to the far west, to take advantage of the Act of Congress, making the period served in the army count upon the time required to secure a quarter-section for a homestead. Their fathers, with no children at home to lean upon in old age, followed their sons to the west or passed to their final rest, leaving none to fill their places. Not one-half of those who entered the army from Vermont ever returned as permanent residents. Assuming that but for the war of the rebellion a large portion of these young men would have lived and reared families in the State, the natural result would have been that Vermont would have at least a population of 40,000 more than it now contains, and many less unoccupied farms. The fact that our lands have been left uncultivated and our population during some decades has decreased is not entirely without its bright side; and we do not alone suffer from the causes mentioned, as our sister States have experienced the same decline in population and farming interests. Even in the Central Western States the movement has been still westward. Nebraska was settled largely by people from Iowa and contiguous States. In the West, others were ready to purchase the lands of those desiring to move, but with us no tide of immigration filled our vacant places.

MASSACHUSETTS.—Mr. Horace Wadlin, chief of the Bureau of Statistics of Labor of Massachusetts, has collected a very complete data on the "abandoned" farms of his State. Commenting upon these figures, the *Inter-Ocean* of a recent date says:

There are in the State of Massachusetts 1461 abandoned farms; 772 of these have buildings upon them; 689 are without buildings; the area of those abandoned farms is equal to 126,459½ acres; 66,530½ acres are farm lands with buildings; 59,958½ acres are farm lands without buildings. The assessed valuation of the abandoned farms with buildings is \$690,019; the valuation of those without buildings is \$386,369; so that the valuation of all abandoned farms in the State is somewhat more than \$1,000,000. By themselves, these figures are minatory of ruined agriculture connected with other figures, and with certain facts their alarming features are obliterated. The number of acres of abandoned land would, at first sight, indicate a diminution of the area of land under cultivation; but the truth is, that the area of land under cultivation has increased by nearly 3.50 per cent during the ten years reviewed by the Massachusetts statistician. The value of agricultural property has increased by more than 23 per cent in the same period, and the value of agricultural products has increased by nearly 29 per cent. The products of agriculture have increased more rapidly than those of manufacture, despite the abandonment of many farms. This holds true not only of the State at large but also of the counties in which abandonment has been most noticeable. For example, the county of Barnstable has 15 abandoned farms, comprising 416 acres, but the increase of the value of farm property is 102.82 per cent, and its increase of agricultural products 71.93 per cent; the decrease of acreage under cultivation for this county is 2.88 per cent. These figures indicate the abandonment of poor land, or of land remote from markets, and intensified culture of better land. Even in New Hampshire, where the abandoned farms number 216, with an area of 21,672 acres, making a decrease of more than 12 per cent of the area under cultivation, the increase in the value of farm property has been nearly nine per cent, and the increased value of farm products nearly 12 per cent.

That many of the farms are of good soil, capable of being brought under a high state of cultivation, is proved by the fact that some of them have been bought up by city men as an investment and have returned a very large annual interest on the money invested. As an instance of this a young man in Boston purchased one of the above mentioned class of farms, and, having the money to carry on the work in a thoroughly scientific manner, received a larger return on his money than he was receiving from his business in the city, where he was engaged as a clothier, presumably on a small scale. He abandoned the less productive business for the greater, and is now located on his farm and supplying butter to the city market the year round at 40 cents per pound.

## Minnesota Chief Threshing Machine.

Threshing machines have, for many years, invited the best efforts of inventors and mechanics, and almost every prominent machine has been improved more or less with each season. The difficulty with most machines is that they have specialties—succeeding in good results in one direction, at the expense of defects in some other, where perfect work is equally necessary. One machine is a rapid thrasher, but a poor separator; another is a rapid thrasher, but defective in cleaning; and another cleans the grain thoroughly, but is very slow. Men of experience will readily call to mind machines that have failed in the ways mentioned. In the effort to combine all these good features, the progress of manufacturers and the consequent improvement of threshing machines have been manifested.

The manufacturers of the Minnesota Chief, at an early day, learned a valuable lesson from the mistakes of their competitors; and no man need be much of a mechanic to understand why the Minnesota Chief is doing annually more and better work than any other machine. The primitive way of separating grain from the chaff was for the operator to toss up, again and again, the mingled mass, the wind catching and

## Planet Jr. Implements for 1891.

S. L. Allen & Co., manufacturers of the well-known Planet Jr. line of horse and hand tools, are out again with improvements which keep their implements abreast of the progress in advanced ideas and practice in land tillage. A pleasing and entirely new feature which is now incorporated in all of their horse tools consists in a hand wheel-lever which, raised or lowered a little at a time, instantly adjusts the depth of cultivation, no wrench or even stopping of the horse being necessary. In addition to their popular horsehoe and cultivator combination, they are now putting on the market two entirely new and evidently very desirable tools which we illustrate herewith.

Fig. 1 represents a special "market gardeners' horsehoe," constructed with particular regard to very fine, close, level culture and admirably adapted for growth of sugar beets, has teeth so formed that while the soil is worked most thoroughly, it still remains level. This tool at a single passage works all rows from 18 to 32 inches, and the beet horsehoe all from 12 to 24 inches. The hoes in either may be exchanged from one side to the other, and the pulverizer may be reduced in size for narrow rows; or by taking off the sweep and the center

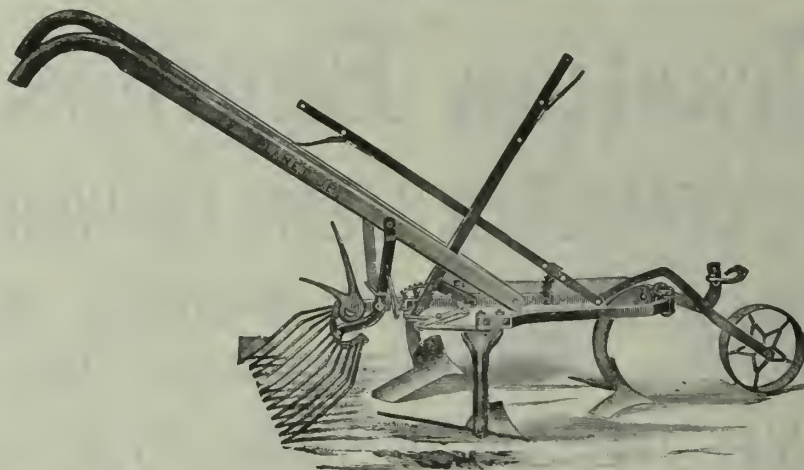


Fig. 1—PLANET JR. SUGAR BEET HORSE HOE AND CULTIVATOR.

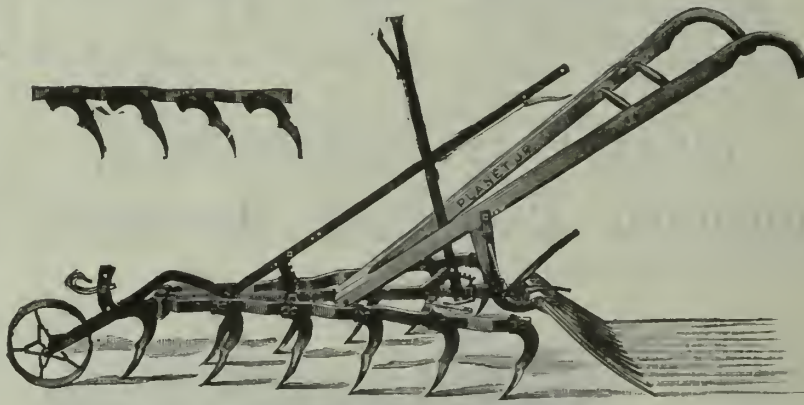


Fig. 2—PLANET JR. ELEVEN-TOOTH HARROW, CULTIVATOR &amp; PULVERIZER.

blowing away the chaff and straw, while the grain, being heavier, fell to the ground. This is precisely the manner by which the Chief handles the mingled grain, chaff and straw, upon the separating table, after it passes the cylinder, taking each handful sharply up and letting it fall again, 30 or 40 times, before it finally passes out of the machine; the grain, being heavier, falls down through the table, thus making the separation perfect and certain. Instead of a small fan running at a rapid motion, producing a spiteful blast and blowing over the grain, we use a large fan, moving at a low speed, throwing a strong, steady and uniform current of air through large openings across broad sieves, sufficient to carry all the chaff and dirt off the riddle. This feature in the operation of the Chief is readily appreciated by the farmers, and makes a material and welcome addition to their profits. In the construction of the Minnesota Chief separator, it has been our aim to attain the three most important requisites to a successful machine; and that our efforts in this direction have been successful is attested by the reputation it has acquired, and which we also confidently leave to the judgment of all who will examine it. These qualities are durability, simplicity and ability to do first class work. Our advertisement, with illustration, will be seen on another page. For catalogue, send to Robert Brand, General Agent, 654 Washington street, Oakland, Cal.

HABIT OF CHEWING GUM.—A prominent New York physician has announced that the constant chewing of gum has produced weak minds in 14 cases of young girls now under his treatment; the constant movement of the mouth causing too great a strain on the head. Here is a solemn warning which our girls should heed.

tooth of the pulverizer, securing the handles to one side and replacing the wheel with a pair of steel runners, either tool may be used to straddle the row and cultivate both sides at once, as in cotton, etc. They run with extreme steadiness, and therefore can be safely used in the very closest and most delicate operations.

Fig. 2 represents the "eleven-tooth harrow," an entirely new and valuable tool now put upon the market after thorough and long extended trials. The frame is much higher than usual in this class of tools, and the blades, an inch wide, are of such shape as to offer very unusual amount of wearing surface; the recurved throat and high frame prevent clogging and the reverse position is given to the teeth in a short time by the changing of a single bolt in each. The frame is heavy and strong, and the teeth set straight with the line of motion, and are interchangeable. It is claimed that they may be worn off three inches before requiring renewal, and yet retain the original cutting width, and then can be cheaply replaced.

Both of these new tools are provided with the new lever wheel already alluded to, and with a pulverizer attachment which leaves the ground in the finest condition. The pulverizer is controlled by a lever which can be operated by the foot while in motion.

These new tools in connection with the full line of Planet Jr. implements, are represented here by G. G. Wickson, 3 and 5 Front St., who makes a large and interesting display of them in his great variety. A full descriptive catalogue illustrating in detail the various methods of cultivation of different crops, which would be particularly interesting to those engaged in market or private gardening; also, in orchard and vineyard work will be mailed to all who apply for it.

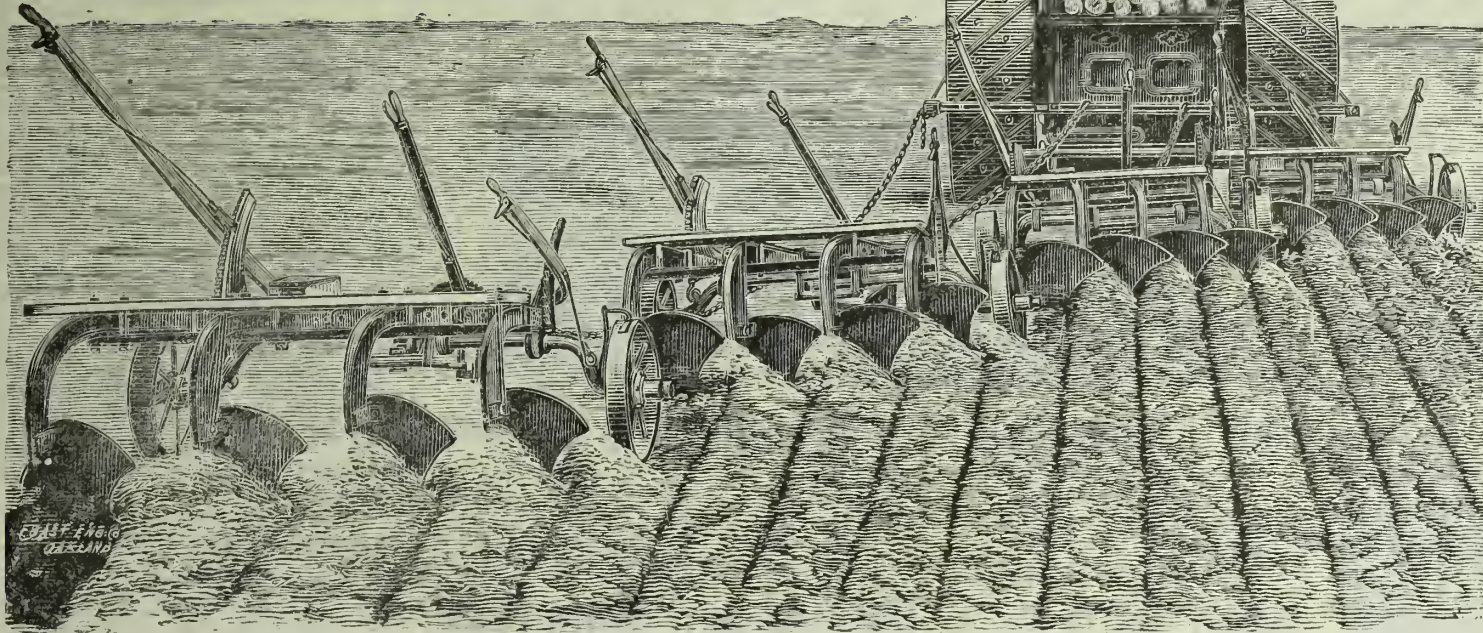


A REVOLUTION  
IN PLOWING.

# Best's Traction Engine.

## THE MONARCH OF THE FIELD!

IT WILL DO THE WORK OF 100 HORSES.



Plowing Reduced to a  
Minimum Cost,

And from 35 to 45 acres plowed each  
day at an expense of 50 cts. to 60 cts.  
an acre.

Three Sizes Built,  
30, 40 & 50-Horse Power.

—AND—

22 Best Traction Engines  
AT WORK NOW.

A Fifty-Foot Harrow  
is Used,

With which from 100 to 125 acres  
are harrowed each day, doing  
the work much better than  
horses.

Messrs. Reed & Frisbie of  
Kings City are pulling a gang of  
25 ten-inch plows, moving at the  
rate of three miles an hour and  
plowing eight acres an hour  
with a Best's Traction Engine.

Plowing by Sunlight by  
Day and Headlight  
by Night.

GOLD MEDAL

Awarded the Best Traction En-  
gine by THE STATE AGRICUL-  
TURAL SOCIETY at Sacra-  
mento, 1890.

SEND FOR CIRCULARS.  
ADDRESS:

# DANIEL BEST,

Proprietor of the Daniel Best Agricultural Works,

SAN LEANDRO, ALAMEDA CO., CAL., U. S. A.

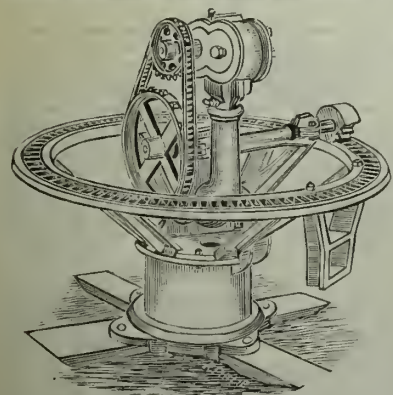
## THE "NEW DEERFIELD" STEEL HARNESS

USES NO DOUBLETREES  
NOR TRACES.

No danger of "Barking" trees  
or vines.  
A great improvement over  
the ordinary harness for all  
purposes, including imple-  
ments and wagons.  
With the New Deerfield, each  
horse is harnessed separately  
in the stall in the usual way.  
Will fit any team.  
Hundreds in use and proving  
most satisfactory.

PRICE PER SET, \$17.50  
Send for testimonials.

G. G. Wickson & Co.  
3 & 5 Front St.,  
SAN FRANCISCO.  
346 Main St., Los Angeles.  
141 Front St., Portland.



## B. B. POWER PUMP

—FOR—

Raising Water for Stock or Farm  
Purposes.

TEN YEARS IN USE, BETTER THAN EVER.

Cheap as a good Mill, Good as a Gas Engine.

Won't blow either up or down, always ready for use, no  
trouble to take care of or repair.

SEND FOR CIRCULARS.

R. M. BEEBEE, Gridley, Cal.

## Little's Chemical Fluid Non-Poisonous SHEEP DIP.

BEWARE OF OHEAP IMITATIONS.

One gallon, mixed with 60 gallons of cold water, will dip thoroughly 180  
sheep, at a cost of one cent each. Easily applied; a nourisher of wool; a certain  
cure for SCAB. Also

Little's Patent Powder Dip.

Mixes instantly with water. Prevents the fly from striking. In a two-pound  
package there is sufficient to dip 20 sheep, and in a seven-pound package there is  
sufficient to dip 100 sheep.

CATTON, BELL & CO.,

(Successors to FALKNER, BELL & CO.),

NO. 406 CALIFORNIA STREET,

SAN FRANCISCO, CAL.

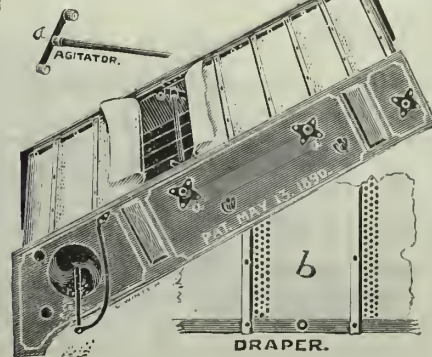


HIGGANUM  
MFG  
CORPORATION.  
THIS WORKS FINELY  
THE  
HIGGANUM CUTAWAY  
CONN. HARROW  
AND WE MEAN  
183 WATER ST.  
NEW YORK CITY.  
N.Y.

SOLE MANUFACTURERS  
OF THE  
CELEBRATED  
CUTAWAY  
GOODS.  
Send for  
SPECIAL  
CIRCULAR



## GRAIN SAVER



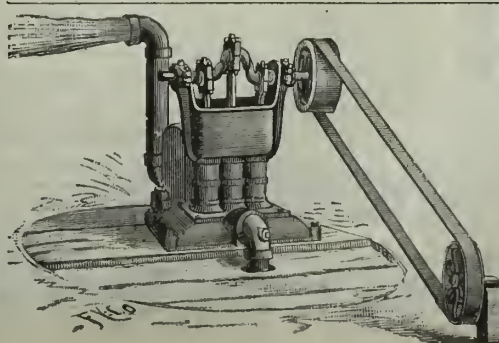
NO MORE WHEAT WASTED

## THE PERFECT GRAIN SAVER

For Combined Harvesters.

No Need of Wasting Grain.  
No Need of Scattering Foul Seed over the Ground.  
No Need of Choking Machine with Green Weeds.  
Impossible to Blow Grain Over.  
As they must be made to fit each machine, please  
write at once.

J. E. BEACH, Routiers, Cal.



## TRIPLE ACTING IRRIGATING PUMP.

It is very easy running and throws more  
water with the same power than any other  
pump—from 3000 to 50,000 gallons per hour,  
according to size of pump.  
It is a POWER PUMP and can be run  
by steam, horse or any other power.  
Send for descriptive catalogue and price list.

F. W. KROGH & CO.,

51 BEALE ST., SAN FRANCISCO.







## FARMERS' INSTITUTES.

## Another Account of The Fresno Institute.

EDITORS PRESS:—As no other local participant has done so I believe I will be giving you an item of interest in reporting the Farmer's Institute held here the first week in April. Knowing that a large number of farmers would be in attendance upon the County Alliance held here April 2d, it was wisely planned to have the Institute convene the following day, thereby holding their attendance. I was one of those who listened with a large degree of curiosity to Prof. Wickson of the State University, as he explained the objects and methods of the Farmer's Institute, and before he had finished, I was converted to the belief of its immense power for good to the people of California, and that I was not alone in that, but that it was a regular camp meeting revival was shown by the events that followed.

Prof. Wickson was accompanied by Prof. Hilgard and the large and attentive audience that listened to him in the afternoon sessions upon the subject of "Alkali in soils and its treatment," showed the interest felt in that matter by our people, and if no other benefit had been received by us except that one lecture, we should have great cause to be grateful to the State for holding that Institute here.

W. W. H. Murray presented the subject of Ramie Culture, pointing his clear and forcible remarks, with samples of the plants and fabrics made from its fiber, awakening a new and deep interest in the matter. While the committee appointed did not feel that they had sufficient knowledge of the plant to warrant them in advising their neighbors to engage now in the culture of ramie, they recommended the subject as one worthy of the fullest personal investigation; and the impression among the people seems to prevail that it is likely to become an important article of production.

I shall occupy too much space if I tell you of all the feast of good things we enjoyed, and also tell you of how we did our part in the good work that had been so well begun for us, which was to form a permanent organization, known as the Fresno Co. Farmers' Institute, and such live energy was displayed in the matter, that officers were elected for the coming year, a Constitution and By-Laws formed and adopted, and we are now in full working order. We shall hold quarterly meetings in the different towns of the county, and fully expect to help ourselves, and be in condition when talent from the State University or from any other place in the State can be with us, to derive the greatest possible benefit from their presence.

We are fortunate in having with us for our Presiding Officer, Mr. O. P. Laird, a new comer fresh from the Institute work in Ohio. Miss L. H. Hatch, the successful raisin grower and Mr. R. B. Harlowe, a live young farmer, are our vice-presidents. Capt. Dawes, an equally live old farmer, is the Treasurer. It will be the duty of these officers to instruct their Secretary to arrange and publish a program one month in advance of a quarterly meeting, and this is where I want the hearty co-operation of the readers of the RURAL, not only of Fresno county, but all over the State. If any of you have any subject of interest you want to bring before an audience of bright, progressive, earnest men and women, farmers and workers in all branches of industry included, prepare a short, pithy article for our next meeting, which will be given in the month of July—exact date will be published duly.

If you are not able to attend in person, name a proxy to give it for you. We shall have at least one evening session, which will allow time for music and appropriate literary exercises. We hope no one will hesitate after this public invitation has been given to respond to it. We have the promised help of Mr. J. S. Dore, whose large acquaintance in the county and State will enable him to suggest means for the program.

One of the first acts of the Organization was to petition the Board of Supervisors to give us a Board of Horticulture consisting of J. S. Dore, Miss L. H. Hatch and Mr. Lucius Baker. We hope, through enthusiastic efforts of our own and the assistance of those favorable to such enterprises, to make such a success of this, that others seeing our good works will go and do likewise. To this end I would earnestly request any one willing to assist us to correspond with me.

MRS. M. B. STUART,  
Fresno, Cal. Sec. Farmers' Institute.

CITY POOL ROOMS CLOSED.—The people of San Francisco have reason to rejoice that one form of local gambling is to be suppressed. It is bad enough to have the pool iniquity at the race track and not spread out everywhere for the debasing of youth and ruin of mature manhood. The San Francisco Supervisors therefore passed an ordinance restricting pool-selling and book-making to the race track on which the races are run, and this ordinance has now been declared to be valid by decision of the Superior Court. In their decision, the judges say: "We are unanimous in the opinion that under Section 11 of the State Constitution, and the Legislative Act of 1862, the ordinance passed by the Board of Supervisors in reference to pool-selling is valid." The gamblers propose to die hard, and have carried the question to the Supreme Court.

## THE BOTANIST.

## Blossom Time.

EDITORS PRESS:—On April 5th from Cholone came a lot of red poppies (*Meconopsis heterophylla*), *Allini serratum* (purple-flowered wild onion), two species of yellow primroses and several species of lupins.

A very odd feature of the red poppy was that it grew only in clumps in large beds of the white flowered *Ellisia membranacea*.

From the north end of Monterey county come the odd little *Tellima affinis* with its dainty white blossoms, *Nemophila aurita*, a purple-flowered, climbing species of "Baby Eyes," *Calochortus lilacinus*, *Allium unifolium* (a pretty rosy-flowered onion), *Linum Canadense* (wild flax), a beautiful rosy purple form of *Lupinus polyphyllus*, a yellow-flowered *L. arboreus*, *Brodiaea laxa*, two species of *Iris* and three species of *Caenothus*.

An odd feature in regard to *Fritillaria liliacea* was noted as follows: Well up on a ridge-side its seed were ripe, the pods opening; lower down, the plant was seen in all its gradations from the full-grown pod to the little green pod just formed, and finally at the bottom of the valley blossoms just opened.

From western Sonoma county comes *Iris longipetella*, *Hosackia bicolor*, with a pretty white and yellow pea-like blossom, *Dodecatheon media*, *Tellima affinis*, *Amsinckia spectabilis*, wild flax, man root, cream cups, forget-me-nots, butter cups, a European cotton, snake root, a number of ferns and other specimens to be examined later.

Speaking of a thermal belt on the east side of Salinas valley, the writer finds it in one location to be coincident with the habitat of *Salvia Carduacea*.  
A. L. LIANCE.

Gonzales.

## List of U. S. Patents for Pacific Coast Inventors.

Reported by Dewey & Co., Pioneer Patent Solicitors for Pacific Coast.

FOR WEEK ENDING APRIL 7, 1891.

- 449,996.—PROPELLER—O. J. B. Boeselager, Mount Angel, Or.  
449,844.—SAW GUIDE—W. A. Campbell, Portland, Or.  
449,847.—ELECTRICAL DENTAL ENGINE—F. F. Eggers, S. F.  
449,848.—DENTAL ENGINE—J. W. Gibson, S. F.  
449,933.—PIANO—A. Graff, S. F.  
450,014.—GRINDING MILL—L. D. Harding, Colfax, Wash.  
449,853.—DEVICE FOR DRAWING STEAM BEER—C. Harth, Willows, Cal.  
449,860.—RIDING PAD—W. C. McNeely, Sacramento, Cal.  
449,858.—STUMP PULLER—W. B. Morris, Seattle, Wash.  
449,764.—WINDOW SASH—A. Rudolph, S. F.  
449,866.—AUTOMATIC BELL RINGER—W. W. Slater, Oakland, Cal.  
449,980.—CONNECTION FOR WAGON TRAINS—W. H. Thurman, Fish Camp, Cal.  
449,717.—VEHICLE SPRING—H. Timken, San Diego, Cal.  
450,116.—THREE-RAIL TRACK FOR CABLE RAILWAYS—C. Vogel, S. F.  
450,117.—CABLE RAILWAY CROSSING—C. Vogel, S. F.  
450,118.—CURVE FOR CABLE RAILWAYS—C. Vogel, S. F.  
449,988.—BREECH LOADING GUN—H. W. Whitelaw, S. F.  
449,787.—ROW LOCK FOR BOATS—Jas. Williams, Portland, Or.  
450,092.—SLATE ATTACHMENT—Maud Wyman, Oakland, Cal.

The following brief list, by telegram, for April 14 will appear more complete upon receipt of mail advices: California—Fred Bomemann, San Francisco, child's folding carriage; George R. Duval, assignor to the Benicia Agricultural Works, Benicia, traction wheel; Charles W. Harvey, Los Angeles, and C. J. Root, Bristol, Conn., said Root assignor to said Harvey, door spring; Charles S. Jones, Redding, ore mill; John C. Scradner, Dover, N. J., assignor to Repanno Chemical Company, Wilmington, Del., and Atlantic Dynamite Company, San Francisco, apparatus for making dope for explosives; Henry E. Thomas, assignor of one-half to F. H. Hansman, San Francisco, suit-power pump; Hilbert Tompkins, San Leandro, foot-strap for horses. Oregon—Langley Hale Jr., Glendale, assignor of one-fourth to G. A. Taylor, Roseburg, car axle. Washington—Joseph H. Bradshaw, assignor of one-fourth to J. Wiley, North Yakima, harness.

NOTE.—Copies of U. S. and Foreign patents furnished by Dewey & Co., in the shortest time possible (by mail or telegraphic order). American and Foreign patents obtained, and general patent business for Pacific Coast Inventors transacted with perfect security, at reasonable rates, and in the shortest possible time.

## Prison Grain Bags Again.

In his report of the State Prison Directors Warden Hale says that the output of grain bags at San Quentin penitentiary has been sold up to May 1st. He also recommends that the price of bags be made to conform to the market value of the imported, and that instead of selling prison bags, which he claims are better, at 6½ cents, to increase the price to 7½ cents. This recommendation is contrary to farmers' views and interests, which will receive attention in our next issue from a representative farmer who has given much attention to the bag problem.

The report states the number of grain bags manufactured from January 1st to date, at 759,050; number of grain bags carried over from last year, 968,300; number of bags to be

manufactured to fill accepted orders, 110,850; total, 1,838,200. Number of grain bags sold and delivered to date, 1,139,200; number of grain bags sold and held for shipment, 699,000; number of bags jute on hand April 11, 1891, 1713. Mr. Hale further states that the output is increasing and waste decreasing. To increase the output still further, an extra guard was placed on duty at the mills.

## State Board of Horticulture.

President Ellwood Cooper of Santa Barbara presided at the annual meeting of the State Board of Horticulture in this city April 15. There were present Commissioners Sol Ranyon of Courtland, J. L. Mosher, San Jose; Frank A. Kimball, National City; Dr. A. F. White, Santa Rosa; Fred C. Miles, Penryn; R. H. Thomas, Visalia.

Secretary Lelong read his report and that of Quarantine Officer, Alex. Crow to which we shall refer at another time. The laws relating to horticulture passed by the last Legislature were considered. The regular appropriation of \$10,000 a year—or \$20,000—was obtained here \$5,000 to be used especially to send Albert Koehle to Australia to search for predaceous insects.

The election of officers being in order, Mr. Cooper was re-elected President without a dissenting voice.

## Death of Ex-Governor Waterman.

Many readers of the RURAL will hear, with deep regret, of the death of Ex-Governor R. W. Waterman, at his residence in San Diego on Sunday last. The disease was pneumonia, and it did its fatal work with frightful speed. He was buried with marked honors on the afternoon of April 14th. Governor Waterman was a native of Herikmer county, N. Y., and a California pioneer. His chief field was mining, and in it he achieved great success and amassed a large fortune. He was elected Lieutenant-Governor in 1886, and became Governor upon the death of Governor Bartlett in 1887. Probably no man ever labored harder to administer an office in accordance with his idea of right than did Gov. Waterman. He suffered from inexperience in public affairs and made mistakes, but of his sincerity and uprightness there is no question. It is sad that after such an experience as he had in a high office he was not given more time to enjoy the quiet of private life, of his fortune and of the family ties which had such grateful influence upon him. He was but 65 years of age, and apparently rugged and good for many more years of earthly effort and attainment, but the summons came and was not to be deferred. His memory will be long cherished.

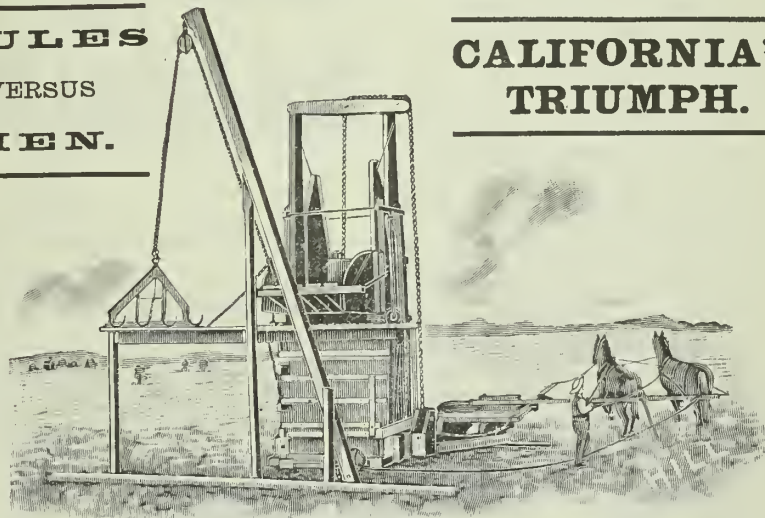
# HILL'S IMPROVED LIGHTNING BALER.

Capacity, 32 Tons per Day.

AWARDED FIRST PREMIUM BY THE CALIFORNIA STATE AGRICULTURAL SOCIETY FOR 1890.

MULES  
VERSUS  
MEN.

CALIFORNIA'S  
TRIUMPH.



No tramping. No forking from the stack. No cutting of stacks necessary. You can sit at a hundred-foot stack and bale it without a move. It makes the best bale in the market. You can put ten tons in a car. The forking from the stack is all done by the horses. The Baler can turn out more hay in less time and better style than any other Press. Here is one of the recent endorsements of this wonderful machine:

J. F. HILL—Dear Sir: We baled on James Ryan's Ranch on the Cosumnes, one mile from the Slough House, 277 bales of alfalfa hay, that weighed 32 tons and 35 pounds, with one of your Lightning hay presses on the 21st day of July, 1890. Yours respectfully,  
CONNOR & ANDERSON.

—MANUFACTURED BY—

## Pacific Wheel and Carriage Works

J. F. HILL, Proprietor,

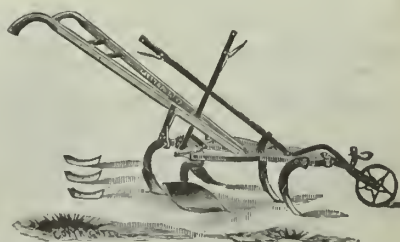
Office and Factories, Nos. 1301 to 1323 J St., SACRAMENTO, CAL.

SEND FOR CIRCULARS.

## ALL STEEL "PLANET JR." HORSE HOE FOR 1891.

Cultivator and Coverer Combined.

Patent Adjustable Lever Wheel.  
Patent Parallel Steel Frame.  
Patent Lever Width Expander,  
Patent Side Adjustment for Handles,  
Patent Hollow Steel Standards.  
Levers Adjust Depth and Width while  
Cultivating.



Handles adjust side-wise for close cultivating in Orchard or Vineyard.

The Planet Jr. Implements are built on scientific principles, with many advantages not found on any other tools; with new adjustments and devices to suit any and all crops and conditions of soil; with improvements which users appreciate and competitors copy.

"Planet Jr." Hand Wheel Hoes, Hand Wheel Plows, Hand Seed Drills.

These Double and Single Wheel Hoes, "Fire Fly" Plows and Hand Drills make gardening fascinating to ladies and even to truant schoolboys, and are most useful and practical tools for market gardeners and farmers. All blades made of hardened, polished steel.

Send for catalogue showing varied uses of above implements.

G. G. WICKSON & CO., 3 & 5 Front St., San Francisco.



## Breeders' Directory.

Six lines or less in this Directory at 50c per line per month.

### HORSES AND CATTLE.

PETER SAXE & SON, Lick House, San Francisco, Cal. Importers and Breeders, for past 21 years, of every variety of Cattle, Horses, Sheep and Hogs.

PERRIN STANTON, Sacramento, Cal., Importer and Breeder of Registered A. J. C. Jersey Cattle of the Best Strains. Stock for sale.

J. R. ROSE, Lakeville, Sonoma Co., Cal., breeder of Thoroughbred Devons, Roadsters and Draft Horses.

P. PETERSEN, Sites, Colusa Co., Importer & Breeder of registered Shorthorn Cattle. Young bulls for sale.

WILD FLOWER STOCK FARM, Fresno Co. A. Hellbron & Bro., Props., Sac. Breeders of thoroughbred strains and Cruikshank Shorthorns; also Registered Herefords; a fine lot of young bulls in each herd for sale.

CHARLES E. HUMBERT, Cloverdale, Cal., Importer and Breeder of Recorded Holstein-Friesian Cattle. Catalogues on application.

PERCHERON HORSES.—Pure bred horses and mares, all ages, and guaranteed breeders, for sale at my ranch near Lakeport, Lake Co., Cal. New catalogue now ready. Wm. B. Collier.

WILLIAM NILES, Los Angeles, Cal. Thoroughbred Registered Holstein and Jersey Cattle. None better.

T. PHILLIPS, Simi, Ventura Co., Cal. Pure Bred Percheron Horses for sale.

COTATE RANCH BREEDING FARM, Page's Station, S. F. & N. P. R. R. P. O., Penn's Grove, Sonoma Co., Cal. Willard Page, Manager. Breeders of Short Horn Cattle, English Draft Horses, Spanish Merino Sheep and Berkshire Swine.

PURE-BRED HOLSTEIN FRIESIAN Cattle for Sale. Bonnie Brae Cattle Co., Hollister, Cal.

JOHN LYNCH, Petaluma, breeder of thoroughbred Shorthorns. Young stock for sale.

J. H. WHITE, Lakeville, Sonoma Co., Cal., breeder of Registered Holstein Cattle.

M. D. HOPKINS, Petaluma, importer and dealer in Eastern registered Shorthorns, Red Polled Cattle, Holsteins, Devons and Shropshire Sheep.

### POULTRY.

R. G. HEAD, Napa, Importer and Breeder of Land and Water Fowls. Send for New Catalogue.

J. R. OATLETT, Pleasant Grove, Cal. B. Leghorn Eggs, 50c per 13.

DELLWOOD POULTRY YARDS, Napa; Thoroughbred Fowls; Eggs \$2 per 13, \$5 per 39.

MADISON H. ORITCHER, Bonnie Doon, Santa Cruz Co., Cal. Thoroughbred Poultry. Settings, \$3.

JOHN McFARLING, 706 Twelfth St., Oakland, Cal., Importer and Breeder of Choice Poultry. Send for Circular. Thoroughbred Berkshire Pigs.

IF YOU KEEP ANY KIND OF FOWLS, Pet Stock, Dogs, &c., it will pay you to send your address at once to C. R. Harker, Santa Clara, Cal. You cannot afford not to do it. It will cost you but one cent and you will receive something worth ten times that.

GALT POULTRY YARDS, Galt, Sac. Co., Cal. Breed most popular varieties of thoroughbred fowls.

CALIFORNIA POULTRY FARM, Stockton, Cal.; send for illustrated and descriptive catalogue, free.

E. F. MUSSON, San Leandro. Box 155. Fine stock

O. J. ALBEE, Lawrence, Cal. Pure bred poultry.

### SHEEP AND GOATS.

FRANK BULLARD, Woodland, Cal., Importer and breeder of thoroughbred Spanish Merino Sheep. Premium band of the State. Choice rams and ewes for sale.

J. B. HOYT, Bird's Landing, Cal., Importer and Breeder of Shropshire Sheep; also breeds Cross bred Merino and Shropshire Sheep. Rams for sale.

E. W. WOOLSEY & SON, Fulton, Cal., Importers & breeders Spanish Merino Sheep; ewes & rams for sale.

B. H. ORANE, Petaluma, Cal., breeder and importer, South Down Sheep from Illinois and England for sale.

KIRKPATRICK & WHITTAKER, Knight's Ferry, Cal., breeders of Merino Sheep. Rams for sale.

L. U. SHIPPEE, Stockton, Cal., importer and breeder of Spanish Merino Sheep, Durham Cattle, Jacks and Jennys & Berkshire Swine high graded rams for sale

ANDREW SMITH, Redwood City, Cal.; see adv't.

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DELLWOOD, Napa; Thoroughbred Berkshire Pigs.

JOSEPH MELVIN, Davisville, Cal., Breeder of Poland-China Hogs.

WILLIAM NILES, Los Angeles, Cal. Thoroughbred Poland-China and Berkshire Pigs. Circulars free.

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### Half-Breed Norman Stallion

NINE YEARS OLD; WEIGHT, 1750; PRICE, \$300. Can be seen at Thalman's Ranch, Pinole, Contra Costa County, Cal.

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Short Horn Cattle and Draft Horses.

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That the public should know that for the past Twenty-one Years our Sole Business has been, and now is importing (Over 100 Carloads) and breeding improved Live Stock—Horses, Jacks, Short Horns, Ayrshires, and Jerseys (or Alderneys) and their grades; also, all the varieties of breeding Sheep and Hogs. We can supply any and all good animals that may be wanted, and at very reasonable prices and on convenient terms. Write or call on us. PETER SAXE and HOMER P. SAXE.  
San Francisco, Cal., April 1, 1891.

PETER SAXE & SON, Lick House, S. F.

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### Standard and Highly Bred TROTTER & GENTLEMEN'S ROAD HORSES

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Catalogues are now ready and will be sent on application to

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### Annual Spring Sale

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## Road, Harness, Work and Draft Horses,

And Shetland Ponies,

From the Ranch of J. B. HAGGIN, Esq.,

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ALSO, Mares in foal or with colts by their side, by BAY ROSE, and Fillies by the above-named Stallions.

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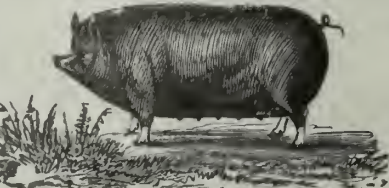
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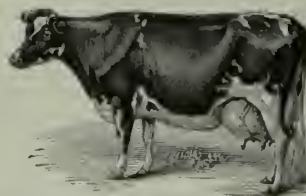
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Easy terms will be given with approved security, either for the entire herd or for individuals. These animals are ALL REGISTERED, and were especially selected for their superior breeding.

No better opportunity has ever been offered than this for any one wishing to engage in the business of raising Holstein Cattle.

N. B.—Fine Young Bulls at from \$60 to \$100 each, all registered.

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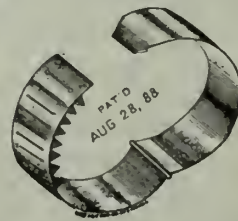
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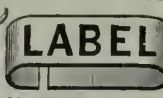
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TWO COWS, TWO 2-YEAR OLD HEIFERS, TWO Yearling Heifers, one Bull Calf; second to none, at low prices. S. M. WILBUR, South Pasadena, Cal.

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Breeder of Registered Holsteins and Berkshires.  
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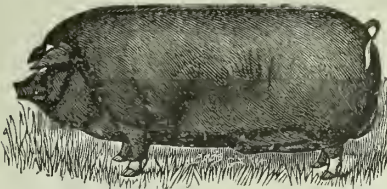
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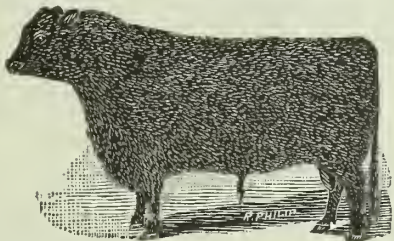
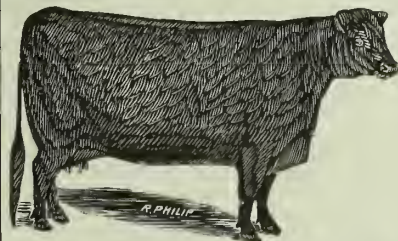


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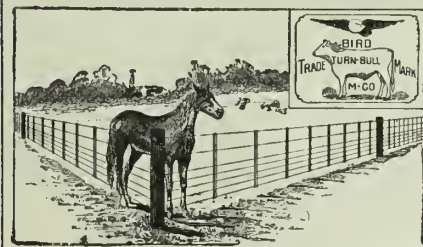
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STOCK FOOD

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FRAUDULENT PARTIES have been selling an article, claiming theirs to be the same, and, in order to mislead, have added a prefix to "Manhattan." Our genuine food is called simple "Manhattan Food," with the Red Ball Brand.

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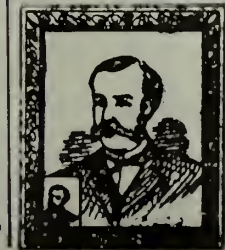
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And at the same time to extend our business and make new customers, we have decided to make this SPECIAL OFFER: Bring or send a picture of yourself, any member of your family, or friend, living or dead, and we will make you a LIFE-SIZE PORTRAIT FREE OF CHARGE, provided you will have it suitably framed by us, exhibit it to your friends as a sample of our work, and use your influence in securing us future orders. Place name and address on back of picture and it will be returned in perfect order. We make any change in picture you wish, not interfering with likeness. References, Wells, Fargo & Co's Express or any Bank in Sacramento.

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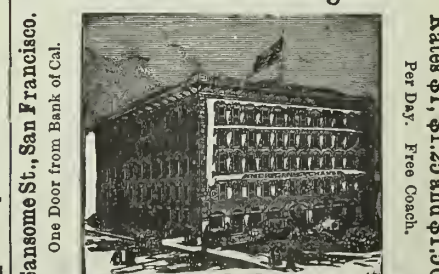
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All Kinds of Green and Dried Fruits.  
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**THE KRIEBEL ENGINE**  
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## BEST TREE WASH.

"Greenhank" 98 degrees POWDERED CAUSTIC SODA (tests 99.8-10 per cent) recommended by the highest authorities in the State. Also Common Caustic Soda and Potash, etc., for sale by

**T. W. JACKSON & CO.,**

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**APIARIAN SUPPLIES.**

Italian Queens, \$2.50 each; Black Queens, \$1 each. Swarms from \$2.50 each; Smoker, \$1. Comb Foundation, \$1.25 per pound; V-groove Sections, \$4 per 1000. Comb Honey wholesale and retail; Hives, etc. **W. STAN & SON, The Homestead Apiary, San Mateo, Cal.**



## S. H. MARKET REPORT

## Market Review.

## DOMESTIC PRODUCE, ETC.

SAN FRANCISCO, April 15, 1891.

Rains with showery weather the past week, have contributed no little in raising the drooping spirits of many and inspiring a more confident feeling regarding the future. It now looks as if the grain crops are well on the road which promise to give the largest output on record, with the grade being a good average. Money is easy and speculation is cropping out. Eastern and European wheat advices report better markets. The following is to-day's cablegram:

LIVERPOOL, April 15.—Wheat—Moderate demand. California Spot lots, 8s 7½d, off coast, 43s; just shipped, 42s 9d; nearly due, 43s; cargoes off coast, very firm; on passage, quiet but firm; Mark Lane wheat, firm but not active; French country markets, very firm.

## Foreign Grain Review.

LONDON, April 13.—The Mark Lane Express, in its review of the British grain trade for the past week, says: English wheats are firm, ranging from 35s to 45s; foreign are active and is dearer; California is quoted at 43s 6d. Flour is firm at the top price, corn is 6d higher. Barley and oats are higher. At to-day's markets English and foreign wheats sold at 6d advance. English flour was 1s higher; American 6d higher.

## Liverpool Wheat Market.

The following are the closing prices paid for wheat options per cwt. for the past week:

	April.	May.	June.	July.	Aug.	Sept.
Thursday.....	8s7½d	8s8d	8s7½d	8s7½d	8s6½d	8s6½d
Friday.....	8s7½d	8s7½d	8s7½d	8s6½d	8s6½d	8s6½d
Saturday.....	8s6½d	8s7d	8s6d	8s6½d	8s6½d	8s6½d
Sunday.....	8s6½d	8s7½d	8s6½d	8s6½d	8s6½d	8s6½d
Tuesday.....	8s6½d	8s7½d	8s6½d	8s6½d	8s6½d	8s6½d

The following are the prices for California cargoes for off coast, nearly due and prompt shipments for the past week:

	O. C.	P. S.	N. D.	Market.
Thursday.....	42s9d	42s3d	42s8d	Strong
Friday.....	42s9d	42s6d	42s9d	Quiet but firm.
Saturday.....	42s9d	42s6d	42s9d	Steady.
Sunday.....	42s9d	42s6d	42s9d	Firm.
Tuesday.....	43s0d	42s9d	43s0d	Tending up.

## Eastern Grain Markets.

The following shows the closing prices of wheat at New York for the past week, per bushel:

	Day.	April.	May.	June.	July.	Aug.	Sept.
Thursday.....	113½	111½	109½	105½	105½	105½	105½
Friday.....	113½	111½	109½	105½	105½	105½	105½
Saturday.....	113½	111½	109½	105½	105½	105½	105½
Sunday.....	113½	111½	109½	105½	105½	105½	105½
Tuesday.....	113½	111½	109½	105½	105½	105½	105½

The closing prices for wheat have been as follows at Chicago for the past week, per bushel:

	Day.	May.	June.	July.	Aug.
Thursday.....	104½	104½	102½	102½	102½
Friday.....	104½	104½	102½	102½	102½
Saturday.....	104½	104½	102½	102½	102½
Sunday.....	104½	104½	102½	102½	102½
Tuesday.....	105	105	103½	103½	103½

NEW YORK, April 15.—Wheat—\$1.15½ for May, \$1.13 for June, \$1.10 for July, \$1.06½ for August, \$1.05 for September and \$1.07½ for December.

CHICAGO, April 15.—Wheat—\$1.05½ for May, \$1.04 for July.

## The Wheat Crop.

WASHINGTON, April 10.—April returns at the Department of Agriculture make the conditions of winter wheat 96.9 and rye 95.4. The season for seeding was favorable over the whole winter wheat area, and the soil was generally easily worked. The seed-bed was prepared with unusual care and the sowing was followed by gentle rains, sufficient to properly pack the earth and insure prompt and perfect germination. The entire season is favorable to California, while in Oregon the dry seed-bed received moisture in time to secure good, though late growth. The advances of the condition in the principal States are: New York, 92; Pennsylvania, 97; Tennessee, 98; Kentucky, 97; Ohio, 98; Michigan, 93; Indiana, 90; Illinois, 97; Missouri, 96; Kansas, 99; California, 99, and Oregon, 97. The returns make the percentages of the losses among farm animals the past year: Horses, 1.7; cattle, 3; sheep, 4, and swine, 8.4.

The weather generally has been mild over the whole area, and while the snowfall was comparatively light, it came when most needed, protecting the plant during the coldest weather. The Hessian fly, which was feared in December in the Central West, is yet in abeyance, but the presence of the pest is noted in many localities, and serious injury might follow should the early season prove favorable for its development.

The general average for condition is the highest reported for April since 1882, and the individual State averages are remarkable for their uniformity. It is 16 points higher than last year and three above the returns for 1889.

A high April condition does not insure a large yield, but it indicates strength and vitality, which would enable the plant to withstand more than the ordinary vicissitudes of a season.

## Visible Supply of Grain.

NEW YORK, April 13.—The visible supply of grain in store and afloat, as compiled by the New York Produce Exchange, is as follows: Wheat, 22,539,000 bushels, an increase of 5,000 bushels; corn, 2,338,000 bushels, a decrease of 323,000; oats, 2,594,000 bushels, an increase of 43,000; barley, 1,040,000 bushels, a decrease of 236,000.

## Eastern Wool Markets.

NEW YORK, April 10.—Bradstreet's will say: The demand for wool has fallen off during the week in all the domestic markets. Australian wools are quiet and values are holding firm on the strength of the cable reporting an advance at London sales. There has been little doing in either Texas or California wools. The demand for pulled wools is confined entirely to fine and fine medium grades. One-quarter and three-eighths blood wools are quiet and the sales which have been made were for small lots. Carpet wools are in light demand, but values are unchanged and quite firm.

## Dried Fruits East.

NEW YORK, April 13.—A lively movement in California evaporated apricots and peaches the past few days inspires the belief that the market is getting into better shape. Philadelphia figured as

buyers and sellers. There is a strong belief that all the old stock on hand in the East will be needed before the new season comes around, and prices are more likely to advance than move in the other direction. Prunes and raisins are also reported as more active.

The commercial journals note the sale of California Tangerines here last week as a novelty. They jobbed at \$3.50 per box, and attracted much interest among the fruit men.

## Local Markets.

	Buyer Season.	Seller Season.	Buyer 1891.	Seller 1891.
Thursday.....	136	136½	104	103½
Friday.....	136	135	104	103½
Saturday.....	137	136½	104½	104½
Monday.....	136½	136½	105	105
Tuesday.....	136½	136½	104½	104½

\*After August.

	Buyer Season.	Seller Season.	Buyer 1891.	Seller 1891.
Thursday.....	161	161½	160½	160½
Friday.....	161	161½	160½	160½
Saturday.....	161	161½	160½	160½
Monday.....	161	161½	160½	160½
Tuesday.....	161	161½	160½	160½

BAGS—The market is fairly steady, 7¢ 7½¢ for May and June delivery. Prison bags are sold up to May 1st.

BARLEY—The sample market has held fairly strong. On Call trading in futures has been more or less neglected owing to the interest centering in wheat. The following are to-day's Call Board sales: Morning Session: Buyer season—100 tons, \$1.36½. Seller 1891—200 tons, \$1.04½ per cwt. Afternoon Session: Buyer season, 800 tons, \$1.37½. Seller 1891—100 tons, \$1.04½ per cwt.

BUTTER—The market has a slightly steadier tone owing to packing. Receipts are large. In last month 18½ tons were shipped to the East. Oregon is increasing her butter output.

CHEESE—Notwithstanding receipts are large, there is a firmer tone, particularly for young American which command an advance. Flats are stiffening.

EGGS—Reported shipments coming from shipping points in the Central States cause dealers to force sales. Only the more choice selected Californian are readily taken.

FLOUR—The market is strong with still higher prices looked for.

WHEAT—The market for sample parcels acts very much as if quite a number of short sellers have been caught. The supply in this State is very light and what there is here is concentrated. If there is a short interest, still higher prices will rule. The market abroad is higher and advancing. On Call trading continues active. The following are to-day's Call Board sales: Morning Session: Buyer 1891—1800 tons, \$1.65; 600; \$1.65½; 200, \$1.64½. Buyer season—200 tons, \$1.63½; 100, \$1.63½; 100, \$1.63½; 100, \$1.64½; 100, \$1.65; 600, \$1.64½; 900, \$1.64½. Buyer 1891, after August 1st—900 tons, \$1.60; 1000, \$1.60½; 1300, \$1.60½. Seller 1891—300 tons, \$1.53 per cwt. Afternoon Session: Buyer 1891—800 tons, \$1.65; 100, \$1.65½; 300, \$1.64½. Buyer season—500 tons, \$1.64½; 200, \$1.64½. Buyer 1891, after August 1st—300 tons, \$1.60; 200, \$1.60½; 100, \$1.60½ per cwt.

## Market Information.

## Produce Receipts.

Receipts of produce at this port for the week ending April 14th, were as follows:	
Flour, qr. sks.....	206,872 Middlings, sks... 3,051
Wheat, cts.....	496,457 Alfalfa, " " " "
Barley, " " " " " "	44,924 Chicory, bbls... 170
Rye " " " " " "	501 Broomcorn bbls... 63
Oats " " " " " "	110 Hops, bbls... 100
Corn " " " " " "	188 Wool, " " " " " "
*Butter " " " " " "	1,646 Hay, tons... 1,325
do bxs " " " " " "	850 Straw " " " " " "
do bbs " " " " " "	" " " " " " " "
do kegs " " " " " "	16 Brandy, " " " " " "
do tubs " " " " " "	9 Raisins, bxs... 500
do ½ bxs " " " " " "	575 Honey, cs... 315
†Cheese, cts.....	871 Walnuts, sks... 100
do bxs " " " " " "	108 Flaxseed, " " " " " "
Eggs, doz " " " " " "	72,220 Mustard, " " " " " "
do " " " " " " " "	" " " " " " " "
Beans, cts " " " " " "	2,344 Peanuts, " " " " " "
Potatoes, sks " " " " " "	17,326 Popcorn, " " " " " "
Onions, " " " " " " " "	743 Beet sugar, bbls... 100
Bran, " " " " " " " "	11,306 do do sks... 100
Buckwheat " " " " " "	" " " " " " " "
*Overland " " " " " "	†Overland " " " " " "

## Cereals.

Mark Lane Express, March 30.—The aspect of our cornfields is not discouraging; but the autumn-sown wheat, although good in color and of a healthy growth, is so far behindhand that even thus early in the season the anticipations of a September harvest, instead of an August crop, have a strong balance of probabilities in their favor. This will throw the burden of finding an extra one or two million qrs. of wheat and flour on the present cereal year—a burden, of course, quite irrespective of the eventual yield per acre of the new crop. The February wheat is little more than up, and will be now later than the sowings of the old year. Spring corn is wanting rain, and if the drought of the first quarter of 1891 be repeated in the second quarter, we shall have a failure of all but the hardest and deepest rooted of the crops. Abroad, the good promise of the wheat in America, Russia, and Austria-Hungary gives the trade hope of a larger total export surplus from these countries than in 1890. The difference in the United States may amount to from 7,000,000 to 10,000,000 qrs., and in Russia and Austria-Hungary combined, to from 2,000,000 to 4,000,000 qrs. Thus, at the best, the wheat surplus in aggregate may be raised from 9,000,000 to 14,000,000 qrs. Against this surplus has to be set the practical certainty of heavy import wants in France and Italy, and the strong probability of increased imports into Spain, Belgium, Holland, and Germany. The current opinion in the trade to-day is that the total of these deficiencies, with the chronic wants of England, will be larger than the total of the surpluses in America, Russia, and Austria-Hungary, and that 1891-92 will

be a cereal year marked with a decidedly higher mean of value than that which has recently prevailed. At present, Mark Lane and the Baltic are restricted in their ability to back this opinion by the fact that the capital in the corn trade is no longer what it used to be. Should, however, the harvest prospects fall off in either Russia or the United States, or should the promise of our own crop be threatened by untoward weather, then outside capital would doubtless be procurable to strengthen the hands of holders, and we might well have decidedly higher prices even within the next few months of the present cereal year.

The local wheat market has continued to hold to strong prices, with further advances established. Although the writer has stated consistently throughout this season, that much better prices would rule over the opening prices in last July, yet it is safe to say that very few farmers in this State are benefited by the higher prices now current, owing to their having sold. The exports to date are fully up to the likelihood in the season of 1889-90, but the surplus now in hand is very much less. The fact must not be lost sight of, that the consumption in this State has increased rapidly under extended fruit-raising, and also that wheat-flour is a leading article of food, and as such, it is quite safe to place the consumption at from 4½¢ to 5¢ bushels per capita. Reckoning it at the former, then, its consumption for food is in round numbers 3,600,000 centals equal to 180,000 short tons.

Dealers claim that it is very hard to buy wheat. Many of the better informed say that there is not over 160,000 tons in the State.

Rains and cloudy, moist weather in this State the past week have improved the crop prospects. All present advices warrant the expectation of a larger output than ever before known. Oregon and Washington advices report good prospects.

Barley has held firm. The supply is very light, but buyers are offish in view of forward crops in several of the counties. New barley will begin to come in early next week. The crop, it is said, will be large and of good quality. It has been many years since supplies were so reduced as they are this, and the season of 1890-92 will come in on a market with stocks exhausted, not only in California, but in Oregon and Washington. Crop prospects in this State and up north are of the best. Although the receipts of oats are light and stocks are being depleted, yet buyers are conservative and any advance in the views of buyers causes them to be offish. Buyers generally claim that there will be a large output on this coast.

Corn has held steady, with a firm tone. It is claimed that there is a steady export buying, and as the supply is not over large buying of any moment causes sellers to ask higher prices.

Rye is virtually unchanged.

In last week's issue mention was made of exporters buying wheat on Call or at least buying buyer option. These purchases were made so as to secure the firm against several cargoes of wheat for shipment in May and June. An exchange in Yuba county (particulars in "Agricultural Notes") states that sales of new crop wheat have been made for July-August delivery. And now comes the Chicago *Drovers' Journal*, April 9th, with particulars of the following sales for forward delivery: Messages from New York note foreigners as large buyers of cash wheat and deferred futures. One dispatch said of the cash demand that foreigners had taken 100,000 bu. wheat for June shipment, 100,000 for July, and 200,000 for August shipment. Another said that six loads of spot wheat at New York and five at Baltimore had been worked and 25 loads additional for summer shipment, and that the foreigners had bought 1,000,000 bu. of September and December futures.

## Oregon Crop and Stock Report.

Portland Crop-weather bulletin, April 11: Farm work is slowly progressing. Seeding on uplands is being pushed rapidly, on low lands the soil is too wet for it to be worked. The acreage of spring grain is being increased. The early sown grain is above the ground and looks to be unusually healthy, though of slow growth. Fall wheat is also of slow growth, but its roots and stools are large, and it is generally reported to be looking unusually well. Wheat prospects were never better at this time of the year than at present; the same can be said of other grains, fruits and crops of all kinds. Fruit is slow in developing which precludes the possibility of damage or injury by probable late frosts. Spring seeding is almost done in Umatilla Co. Strong winds during the week did some slight damage to the newly sown grain.

The stock wintered well, the loss has been practically nothing, the range is becoming better. Some cattle are yet fed, but sheep generally get sufficient food on the range. Pelts and hides are scarce.

Warmer weather and more sunshine are needed to cause crops to have more rapid growth.

## Feedstuff.

The demand appears to be enlarging for ground feed, and as the supply of bran and middlings is only fair, prices for the former are higher. Feed-meal and cracked corn are held at an advance on our quotations.

Under light receipts and a good demand the better grades of hay fetch more money. The supply of old will about be exhausted when new begins to arrive. The prevailing opinion is that fewer grain fields will be put for hay this year than there were in 1890. This opinion is based upon reports that the plant is generally not so high as in last year, while the high price of cereals will cause many to cut for grain.

## Fruit and Canned Goods.

The shipments of fruit and canned goods to the East by rail in March were as follows:

	Canned Goods.	Dried Fruit.	Citrus Fruit.
From—			
San Francisco, lbs.....	689,000	249,100	.....
Los Angeles.....	33,440	50,650	3,813,230
Sacramento.....	108,440	56,680	.....
San Jose.....	207,980	209,820	.....
Marysville.....	70,500	19,000	116,700
Colton.....	.....	65,860	3,491,860
Stockton.....	.....	13,540	.....
Totals.....	1,689,450	683,650	7,421,790
January.....	1,554,360	2,007,410	965,610
February.....	833,360	953,510	1,773,510

Three months, 3,467,170 3,624,570 10,165,910  
The shipments of raisins from the State in the past month were as follows: San Francisco, 108,-

680 lbs; Sacramento, 450,520; Stockton, 364,860, Marysville, 13,780; Los Angeles, 22,300; San Jose, 23,390. Total, 983,530 lbs, as against 1,329,740 in January and 481,330 in February.

## Fruits.

All advices are confirmatory of good crop prospects. Apricots are reported to be dropping, but then this will save thinning. Cherries will be in market next week. Some shipments are reported to have been made East. The crop will be large and of good quality. Information regarding crops is given under Agricultural Notes.

Apples are about gone. Quotations are withdrawn. Strawberries are coming in more freely. It is reported that canners are contracting for apricots at 1½¢ to 1¾¢ according to location of orchard. Sicily lemons are higher, other kinds are strong. Lemons are unchanged.

Oranges continue to go East in large quantities. While the East gets choice, we, as a rule, get the culls. Choice oranges in our market are light stock and fetch good prices. There is an oversupply of scaly and also of thick-skinned and corky.

## Vegetables.

Favorable weather is reported for garden truck. Cool, moist weather is against rapid maturing, but it is favorable for young growing vegetables.

The receipts of new potatoes are light; the bulk of the receipts are better adapted for playing marbles than for eating. Large-sized new, fetch outside quotations. Old have a stronger tone. Under free buying for shipment East, Burbanks were advanced. Onions are in light supply, causing a strong market to obtain.

Canners are reassuring in asparagus, and expect to start on peas the first part of May. The crop of peas will be heavy, as will that of string beans. The receipts of peas, asparagus and rhubarb are free, while that of string beans are light.

The southern counties report overland shipments of vegetables.

## Live-stock.

Bullocks and mutton sheep are cheaper under freer selling. The conditions are uniformly good. Hogs are firm. Milch cows and horses are unchanged.

The market for dressed cattle is quoted as follows [to obtain the price on foot, take off from the price for stall-fed one-third to one-half, according to the nature of the feed and time fed; and for grass-fed take off the price from 40 to 60 per cent]:

HOGS—On foot, light grain fed, 5½¢ to 5¾¢ lb; dressed, —@—¢ lb.; heavy, 5¢ to 5½¢ lb.; dressed, —@—¢ lb. Stock hogs, 4¢ to 4½¢ lb. BEEF—Stall fed, 6½¢ to —¢ lb.; grass fed, extra, 6¢ to —¢ lb.; first quality, 5½¢ to —¢ lb.; second quality 5¢ to —¢ lb.; third quality, 4¢ to —¢ lb.; bulls and thin cows, 2¢ to 3¢ lb. VEAL—Small, 6¢ to 8¢ lb.; large, 5¢ to 6¢ lb. MUTTON—Wethers, 8¢ to 8½¢ lb.; ewes, 7½¢ to —¢ lb.; spring lamb, 10¢ to 12¢ lb. lb.

## Miscellaneous.

Young, well-conditioned and large-sized poultry are wanted. Older kinds are weak, owing to receipts overland.

White beans are higher and in good request, which causes the entire line to fetch better prices. The shipments to the East and also by sea are large, which cause dealers to look for slightly better prices. Crop prospects are uniformly good.

The supply of hops on this coast is very light, and buyers to have their wants met have to pay full prices.

Wool commands full prices, that is, if it is healthy and lively. Dead wools and all other defective wools are hard to place, except at concessions. Buyers are sampling more freely. Honey is coming in more freely, but quotations are essentially unchanged.

The overland shipments in last month aggregated as follows, in pounds: Beans, 1,404,320; brandy, gals, 343,100; butter, 37,510; hops, 118,000; potatoes, 8,945,280; wine, gals, 6,338,360; vegetables, 1,136,410; wool, grease, 289,690, pulled, 156,840, scoured, 254,200.

Exports by sea the past week aggregate as follows: Flour, bbls, Honolulu, 1843; China, 11,975; Japan, 6252; Westport, 21,250; Tamaco, 130; Guayaquil, 3500; Manila, 500; Central America, 2368. Wheat, cts, Antwerp, 72,836; Havre, 313,759; Dunkirk, 49,703; Barley, cts, rolled, Kahului, 140; Honolulu, 1201; Hilo, 138; in grain, Hilo, 146; Honolulu, 1874. Wine, gals, Honolulu, 8407; New York, 6009; Newark, 1287; Hoboken, 1284; Central America, 3763; Panama, 2047. Dried fruits, lbs, Victoria, 1950; Honolulu, 1850. Bran, sks, Hilo, 2099; Honolulu, 415. Hops, lbs, Central America, 1061. Hay, bbls, 3476. Beans, lbs, Honolulu, 28,154; New York, 70,954; Central America, 6094; China, 31,958.

From reliable advices up to April 15th the following summary of tonnage movement is compiled: On the way to 1891. 1890.

San Francisco.....	247,506	177,766
San Diego.....	17,456	14,570
San Pedro.....	2,773	11,055
Oregon.....	31,811	24,278
Puget Sound.....	32,791	20,789
Totals.....	332,287	248,458

In port at San Francisco, disengaged..... 1,773 22,426  
" engaged for wheat..... 55,397 46,249

San Diego.....	3,252	18,357
San Pedro.....	3,951	.....
Columbia River.....	11,963	.....
Puget Sound.....	.....	.....
Totals.....	96,346	87,033

To get the carrying capacity, add 65 per cent to the registered tons as given above.  
From July 1, 1890, to April



Domestic Produce.

Table with multiple columns listing various domestic produce items such as Beans and Peas, Broom Corn, Chickens, Eggs, Feeds, Fruits and Vegetables, and various oils and flours. Includes prices and quantities.

PACIFIC COAST WEATHER FOR THE WEEK. Table with columns for various locations (Olympia, Portland, Eureka, Red Bluff, Sacramento, S. Francisco, Fresno, Keeler, Los Angeles, San Diego) and rows for weather conditions (Rain, Temp., Wind, etc.) over a period of time.

EXPLANATION. Cl. for clear; Cy., cloudy; Fr., fair; Cm., calm; indicates too small to measure. Temperature wind and weather at 5 P. M. (Pacific Standard time) with amount of rainfall in the preceding 24 hours. T indicates trace of rainfall. P C, partly cloudy. Ra., rain.


POSTAL TELEGRAPH.—As Postmaster-General Wanamaker is to visit us with President Harrison, and will probably give some time to the selection of a site for the new San Francisco postoffice, it has been fitly suggested that his visit could be given much wider significance by securing an address from him on the postal telegraph. An invitation could be extended by some trade organization like the Chamber of Commerce, perhaps, and as Gen. Wanamaker has clear views on the subject, no doubt he would be willing to voice them for the information of our people, who are so deeply interested in cheap and satisfactory telegraphic communication. We hope this will be done. Another important innovation, which should be urged upon Mr. Wanamaker, is making ten cents in ordinary stamps affixed to a letter, secure immediate delivery. It is often inconvenient and sometimes impossible to secure an "immediate delivery" stamp. Uncle Sam should do the business whenever he is paid ten cents in any of his stamps.

Easy Binder. Dewey's patent elastic binder, for periodicals, music and other printed sheets, is the handiest, best and cheapest of all economical and practical file binders. Newspapers are quickly placed in it and held neatly, as in a cloth-bound book. It is durable and so simple a child can use it. Price, size of Mining and Scientific Press, Rural Press, Watchman, Fraternal Record, Masonic Record, Harper's Weekly, and Scientific American, 75 cents; post age, 10 cents. Postpaid to subscribers of this paper, 50 cents. Send for illustrated circular. Agents wanted.

ONE day last week the people of San Jacinto, San Diego county, devoted to tree-planting in their public streets. The Register says 1000 cypress and blue gums were set out.

A COMPANY of local capitalists of Los Angeles have been given permission to erect a \$40,000 fruit-drier inside the city limits.

WAKELEE'S THE BEST IS THE CHEAPEST. SQUIRREL AND GOPHER EXTERMINATOR! IN 1-LB. AND 5-LB. CANS.




LAND WORTH LOOKING AFTER —AND— Likely to Double in Price Soon. FINE VINEYARD CHOICE FRUIT RARE RAISIN AND ALFALFA LAND EXAMINE THIS RARE CHANCE.

A well-cultivated farm of 160 acres, with miles of fencing and cross fencing, good improvements, 7-room, two-story, hard-finished house, nearly new, plenty shade trees, large barn, blacksmith shop, milk house, grain house and other outbuildings; 7 acres of bearing orchard; 20 acres of alfalfa; large flowing artesian well of splendid water, and first-class surface wells of water; pleasantly located 7 miles from Tulare City; is offered for sale at about cost of improvements, on easy terms, by the owner, who is engaged in other business. Land sold, in lots, without improvements, at \$25 per acre. The readers of this journal are assured that this chance is worth looking after. Parties in San Francisco who know the property can be referred to. Some adjoining land can be secured at favorable rates if desired.

Address E. M. DEWEY, Porterville, Tulare Co., or A. T. DEWEY, 220 Market St., S. F.

OAKLAWN FARM. 380 PERCHERONS Largely Brilliant Blood, AND 106 FRENCH COACH HORSES, Large, Stylish, Fast. This aggregation, that, for superiority in individuals, combined with the Choicest, Rarest, Breeding, was never before equaled in the history of Horse Importing and Breeding now comprises the STOCK ON HAND at this Greatest Establishment of its kind on earth; among them the Winners of Thirteen First Prizes AT UNIVERSAL EXPOSITION, PARIS, 1889, AND FORTY FIRST PRIZES At the Great French Fairs. PRICES BEYOND COMPETITION. For information and Catalogue, address, M. W. DUNHAM, WAYNE, ILLINOIS, thirty-five miles west of Chicago, on C. & N.W. R.R. between Turner Junction and Elkin.

CHAMPION LAWN MOWER. The Most Durable, Practical and Lightest Running Machine in the Market. Sizes 10, 12, 14, 16 & 18 Inches. Prices as low as the lowest, and Machines better than the best. Send for circular and prices. WIESTER & CO., 17 & 19 New Montgomery St., San Francisco.



Fruits and Vegetables. Choice selected, in good packages, fetch an advance on top quotations, while very poor grades sell less than the lower quotations. WEDNESDAY, April 15, 1891.

Bananas, bunch 1.50 @ 3.00  
Limes, Mex. 7.00 @ 8.00  
do California. — @ —  
do do sm'l bxs — @ —  
Lemons, box. 2.50 @ 3.50  
do Los Angeles 1.50 @ 2.00  
do Sicily, bx. 6.00 @ 7.50  
Seedling Oranges. — @ —  
do Riverside, 1.75 @ 2.50  
do Los Angeles 1.25 @ 2.00  
Navel Oranges. — @ —  
do Riverside, 5.00 @ 5.50  
do Los Angeles 3.00 @ 3.50  
do do scaly. 2.00 @ 2.75  
do Duarte. 3.00 @ 4.00  
Pineapples, doz. 4.00 @ 5.00  
Strawberries. — @ —  
Chest. 10.00 @ 12.50  
PEAS. — @ —  
Okra, dry, lb. 20 @ 30  
Parsnips, ctl. 1.25 @ —  
String Beans, lb. 5 @ 10

Ramie Meeting at Merced. EDITORS PRESS:—On Saturday, April 11th, a farmers' meeting was held at El Capitan hotel, Merced, and 200 farmers were present. A paper was read on "Ramie Culture" by W. H. Murry, Superintendent of Ramie Culture. Mr. R. L. Lichtenberg, who has had years of experience with ramie fiber and the plant also, addressed the meeting, and some 15 acres were promised to Mr. Lichtenberg, who explained he had only a limited number of the ramie roots, and that his California Ramie Company would purchase the fiber at three cents net, and guarantee to take all the stalks for 5 to 10 years, and work them in a new decorticating machine. At 2 P. M. the meeting reassembled, and Mr. C. Landrum was elected chairman and Mr. R. Gracy secretary. A committee was named to take charge of the ramie station at Merced, and to have full charge of the business arrangements of the station as follows: J. A. McKiricus, J. B. Galand, H. K. Huls. Merced, April 12.

DRIFTED SNOW FLOUR. Write us for prices and full particulars. Address TRUMAN, HOOKER & CO., SAN FRANCISCO and FRESNO.



THE JUDSON RABBIT-PROOF WIRE & PICKET FENCE. fence colored RED by boiling in a chemical solution that preserves the wood. Address JUDSON MANUFACTURING COMPANY, 14 and 16 Fremont Street, San Francisco.



### Tomato Raising in Alameda.

In Haywards the writer met and conversed with A. L. Graham, who has won the reputation of being the greatest raiser of tomatoes in California, or in other words is the "Tomato King" of the State. Last year he had 200 acres in tomatoes, 20 in cucumbers and 40 in peas. This year he will have 250 acres in tomatoes, 75 of cucumbers and 30 of peas. He shipped last year 3000 tons of tomatoes to the San Francisco market, in 72,234 boxes of about 80 pounds to the box, all of it going by rail, and sometimes requiring 8 cars a day to transport it. During the season he had about 150 men working for him and will this year have more. Mr. Graham is still but a young man. He began operations five years ago when in his later 'teens, without a dollar of capital. He planted 34 acres and had a return of 800 boxes to the acre, a tremendous yield, that netted him a profit of \$5000 and put him on his feet, enabling him gradually to increase operations as he is doing. Mr. Graham was born near Haywards, and is the son of Judge Joseph Graham who began farming and vegetable raising in Alameda county in 1852, and continued it with success until he retired a few years since. Mr. A. T. Graham has as partner in this enterprise, F. M. Worthington. He is also engaged in grain and hay raising as well as vegetable raising, in another tract in partnership with his father-in-law Daniel Culp, and his brother Charles S. He has a beautiful cottage home on Castro street in a good part of town. As exhibiting the wonderful fertility of the ground on the Meek ranch, on a portion of which these tomatoes are grown, it may be stated that the tomato vines are planted 7x8 feet apart, but they spread out and cover the ground completely. They are the "Trophy" variety.

### Forty Years Ago To-Day.

The Pioneer Newspaper Advertising Agency of S. H. Parvins' Sons was established in Cincinnati on the 27th of March, 1851, forty years ago. It has kept pace with the advancement of civilization and the demands of the times. From a small beginning the business has gradually grown into one of immense proportions, having unlimited credit with the entire newspaper press of the United States, Canada and foreign countries.

One noticeable feature is the fact that during all these years having maintained a high standard of integrity, the Parvin Agency have through fair dealing, gained the confidence and good will alike of both advertisers and publishers, thus enabling them to secure for their many patrons the most favorable consideration at the hands of publishers.

The success of such a reliable firm is chronicled with pleasure. The Parvin Agency, infused with the spirit of progressive men of experience, and a thorough knowledge of the advertising field, has gained for them a world-wide reputation and produced fortunes for many of their customers.

After forty years of creditable business experience in the field of advertising, the firm of S. H. Parvin's Sons deserve the hearty and cordial recognition, as well as congratulations, of the entire press of the country.—Cincinnati Enquirer, March 27, 1891.

### Complimentary Samples.

Persons receiving this paper marked are requested to examine its contents, terms of subscription, and give it their own patronage, and as far as practicable aid in circulating the journal, and making its value more widely known to others, and extending its influence in the cause it faithfully serves. Subscription, paid in advance, 5 mos., \$1; 10 mos., \$2; 15 mos., \$3. Extra copies mailed for 10 cents, if ordered soon enough. If already a subscriber, please show the paper to others.

### NEWSPAPER AGENTS WANTED.

Extra inducements will be offered for a few active canvassers who will give their whole attention (for a while at least) to soliciting subscriptions and advertisements for this journal and other first-class popular newspapers. Apply soon, or address this office, giving address, age, experience and reference. Special inducements to old agents.

DEWEY & CO., Publishers,  
No. 220 Market St., S. F.

### Don't Fail to Write.

Should this paper be received by any subscriber who does not want it, or beyond the time he intends to pay for it, let him not fail to write us direct to stop it. A postal card (costing one cent only) will suffice. We will not knowingly send the paper to any one who does not wish it, but if it is continued, through the failure of the subscriber to notify us to discontinue it, or some irresponsible party requested to stop it, we shall positively demand payment for the time it is sent. LOOK CAREFULLY AT THE LABEL ON YOUR PAPER.

### Unitarian Literature

Sent free by the CHANNING AUXILIARY of the First Unitarian Church, cor. Geary and Franklin Sts., San Francisco. Address Mrs. B. F. Giddings as above.

USE "Dead Lock" Gopher Traps. They are the best. See advertisement in this paper.

## AYER'S PILLS

Excel all others as a family medicine. They are suited to every constitution, old and young, and, being sugar-coated, are agreeable to take. Purely vegetable, they leave no ill effects, but strengthen and regulate the stomach, liver, and bowels, and restore every organ to its normal function. For use either at home or abroad, on land or sea, these Pills

### Are the Best.

"Ayer's Pills have been used in my family for over thirty years. We find them an excellent medicine in fevers, eruptive diseases, and all bilious troubles, and seldom call a physician. They are almost the only pill used in our neighborhood."—Redmon C. Conly, Row Landing P. O., W. Feliciana Parish, La.

"I have been in this country eight years, and, during all this time, neither I, nor any member of my family have used any other kind of medicine than Ayer's Pills, but these we always keep at hand, and I should not know how to get along without them."—A. W. Soderberg, Lowell, Mass.

"I have used Ayer's Cathartic Pills as a

### Family Medicine

for 35 years, and they have always given the utmost satisfaction."—James A. Thornton, Bloomington, Ind.

"Two boxes of Ayer's Pills cured me of severe headache, from which I was long a sufferer."—Emma Keyes, Hubbardstown, Mass.

## Ayer's Pills,

PREPARED BY

Dr. J. C. AYER & CO., Lowell, Mass.

Sold by all Dealers in Medicine.

### THE VERY BEST & CHEAPEST FLOUR.



PRIZE MEDAL OF CAL. STATE FAIR, 1890

J. L. HEALD, Pres.

C. B. MORGAN, Sec'y.

## HEALD MFG. CO.

Crockett, Contra Costa Co., Cal.

### Stationary Engines and Bolders.

#### TRACTION ENGINES,

Portable Straw-Burning Boilers & Engines.

### IRON AND BRASS CASTINGS.

Machinery of all kinds furnished at shortest notice.

### Heald's Patent Wine-making Machinery.

Including Grape Crushers and Stemmers, Elevators, Wine Presses and Pumps, and all appliances used in Wine Cellars. Irrigating and Drainage Pumps. Heald's Patent Engine Governor, Etc.

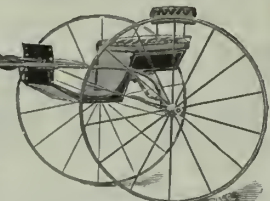
## PATENTS!

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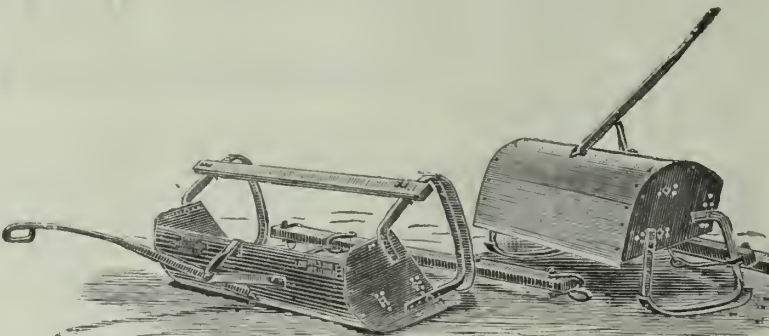
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Has a seat wide enough for two, with box underneath for parcels. The body has been lengthened, is securely framed and strengthened by making the panels in one piece. Seven wheels, steel axles, and curved dash. Finished in scarlet lake or brewster green. The "Blue Ribbon" has proved to be the best built, most popular and best selling low-priced Phaeton Cart ever brought to this market. With Patent Spiral Spring Lazy Back. Shipped securely crated. Weight, 175 pounds.



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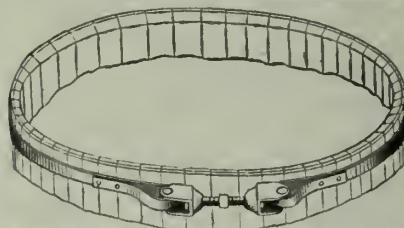
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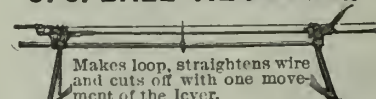
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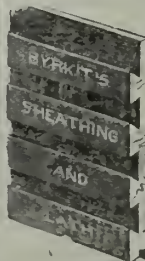
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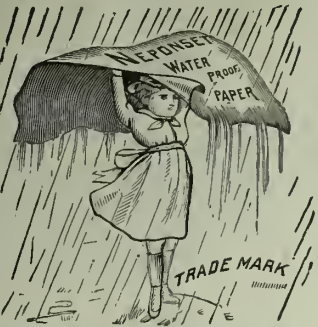
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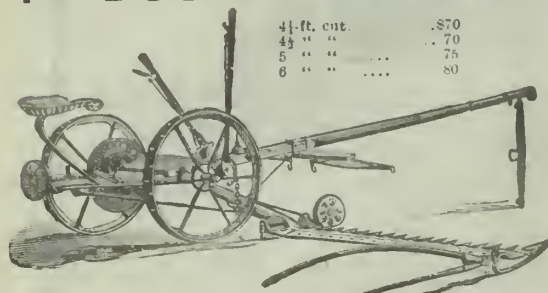
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A SPECIALTY.



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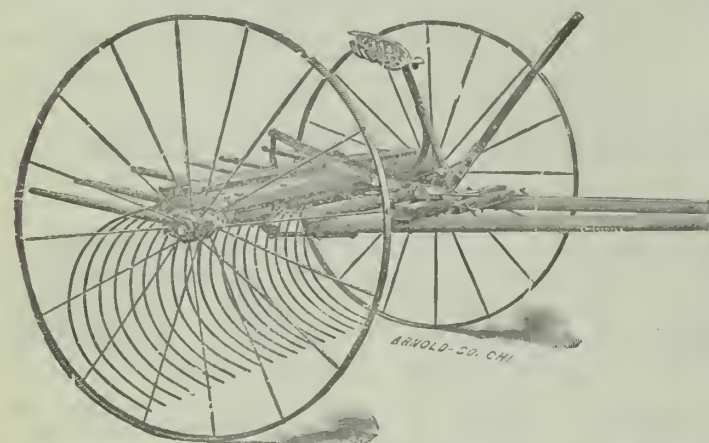


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It has an adjustable Pitman head. It has a take up for the eye of the knife, steadies the knife and relieves the friction. A great advantage over machines with ball wrists or swivel connecting rods.

The Buckeye Mower is far Ahead of any other Mower.

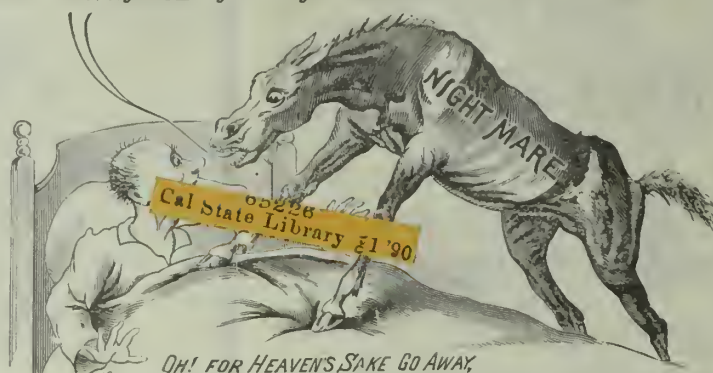
It is the LIGHTEST, SIMPLEST, STRONGEST and MOST DURABLE mower manufactured. Every one guaranteed. Write us early and secure territory. AGENTS WANTED IN EVERY SECTION OF THE COUNTRY.



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No. 6—8-ft. Rake, 20 Teeth, Steel Wheels, Shafts and Pole, weight 260 lbs. \$34 00  
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OH! FOR HEAVEN'S SAKE GO AWAY,

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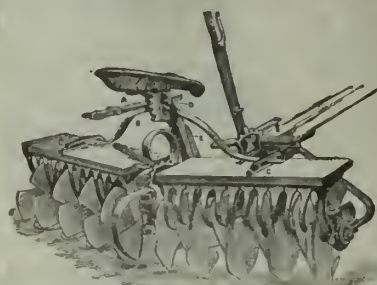
HAS DOUBLE ELEVATOR DRAPERS.

It is the Lightest Draft, it has the best Elevator, Double Drapers in the Elevator, it is Simple in Construction, it is the Most Durable, IT IS GUARANTEED TO BE THE BEST HEADER IN THE WORLD.

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PACIFIC SPADER AND VINEYARD CULTIVATOR.

PATENT COMBINED ROTARY PLOW.

It does not ridge the ground, but leaves it smooth after pulverizing it perfectly. It cannot clog and does more work in one stroke than a Disc Harrow in ten.

No. 5D 5 1/2-foot Spader.....\$50 00  
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ASK FOR THE ORIGINAL BUCKEYE MOWER AND TAKE NO OTHER.

IT IS THE BEST MOWER IN THE WORLD.

EVERY ONE GUARANTEED

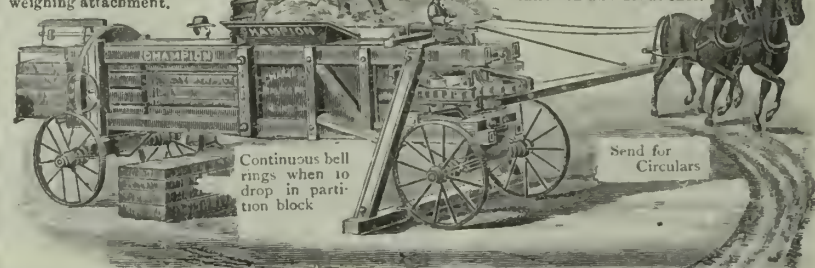
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CHAMPION CONTINUOUS

Bales one to two tons an hour. Loads 10 to 15 tons in a car. Bale weighing attachment.

DOUBLE WORKING BALING PRESSES.

Uses no door. Easy on Man and Beast. Turning either hand wheel effects tension on all sides at once.



It is Steel Lined. Price \$400. Most Rapid, Powerful and Durable Press in America. Every Press Warranted.

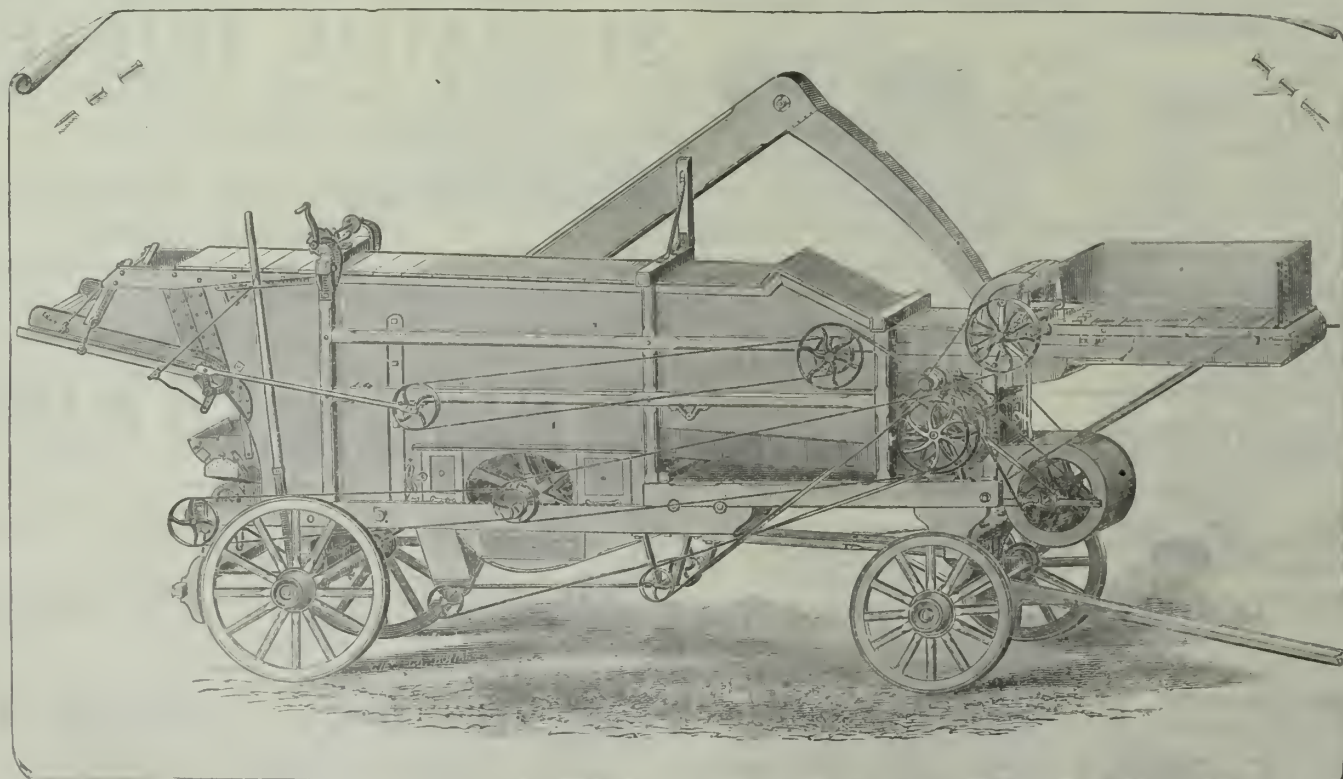
Hay and Baling Presses of every description. We are headquarters for all kinds of baling tools. Ask for Truman, Hooker & Co's Cross Head Bale Ties. Cheaper than wire, better than rope.

We have the largest and finest Carriage Repository on the Pacific Coast. Vehicles in great variety Agricultural Implements of every description. Send for our No. 16 Catalogue, mailed free to any address.

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# PACIFIC RURAL PRESS

Vol. XLI.—No. 17.

SAN FRANCISCO, SATURDAY, APRIL 25, 1891.

DEWEY & CO., Publishers,  
Office, 220 Market St.

## The Wheat Situation.

The wheat markets of the world witnessed higher prices the past week than for several years, and yet it would appear from best statistical information obtainable that still higher ranges are altogether likely to rule. For several months past the commercial columns of the RURAL PRESS have furnished food for the more thoughtful readers of the paper, and we feel confident that many of our patrons have profited by the statistics therein presented, from time to time, regarding the world's wheat supply and requirements. At any rate, events of the past few weeks have substantiated our statements made sometime previous to the inauguration of the present hull campaign in the wheat market of the world.

The local spot market for wheat to-day is higher than since the memorable deal in 1887, which, when it collapsed, wrecked many fortunes. Then the prices were speculative and fictitious, but now they are based on substantial grounds; and in this connection it is of interest to note the highest prices in this city for 14 years past, as contained in the following table compiled from a table of monthly prices recently published by us, and furnished by Albert Montpellier, manager of the Grangers' Bank of California, San Francisco:

Year.	Month.	Price.
1877.....	December.....	\$2 42½
1878.....	January.....	2 35
1879.....	November.....	2 15
1880.....	January.....	2 05
1881.....	November.....	1 75
1882.....	December.....	1 76½
1883.....	March.....	2 05
1884.....	January.....	1 80
1885.....	April.....	1 50
1886.....	December.....	1 52½
1887.....	August.....	2 12½
1888.....	November.....	1 66¾
1889.....	February.....	1 45
1890.....	May.....	1 35

According to Mr. Montpellier's table the highest prices during the month of April were 1878, \$2.05, 1879, \$1.65; 1880, \$1.87½; 1881, \$1.42½; 1882, \$1.65; 1883, \$1.85; 1884, \$1.60; 1885, \$1.50; 1886, \$1.36½; 1887, \$1.75; 1888, \$1.34½; 1889, \$1.42½; 1890, \$1.31½.

In last week's issue of the PRESS there was given an extract from the *Mark Lane Express*, which claimed that the increase in the surplus of wheat this year over that of 1890 by Russia, the United States and Austria-Hungary is estimated at from 72,000,000 to 112,000,000 bushels, but this increase would probably be more than offset by a deficiency compared with 1890 in the crops of France, Italy, United Kingdom, Belgium, Holland and Germany. Accepting this as correct, then, with the world's reserve reduced to lower figures than ever before known, we can reasonably look forward to a season of high prices. What gives color to short crops in Europe is the heavy purchases by France and the Continent of wheat cargoes on passage and for shipment, and this, too, at steadily advancing prices. Bearing on the French crops we give the following from a well-known and responsible wheat house in France, published in a late issue of the *North-western Miller*:

In the first place, the area sown is at least 2,500,000 acres less than last year, which, taken at the average yield of 18 bushels per acre, means 45,000,000 bushels loss. With regard to the area damaged by frost and replowed, it is still estimated to be at least one-fourth, or say 4,500,000 acres. It remains to be seen what amount of this will be resown with spring wheat; but in any case, the condi-



HON. J. M. RUSK, SECRETARY OF AGRICULTURE.

tion of the plant where it has not had to be replowed is so unfavorable that even the most optimistic authorities look for a further loss on this account of 50,000,000 bushels compared with last year; so that, altogether, we must look for a crop 90,000,000 to 95,000,000 bushels short of last year's, which was officially estimated at 336,000,000 bushels, but is commercially recognized not to have exceeded 320,000,000 bushels. Thus present indications point to a crop of 225,000,000 to 230,000,000 bushels, while France consumes annually 340,000,000 to 350,000,000 bushels.

AGRICULTURAL STATION EXHIBITS AT THE WORLD'S FAIR.—The Association of Agricultural Experiment Stations had a meeting in Chicago last week, and it was decided to make an exhibit of station work at the World's Fair. There will be many departments of the work made, each under the direction of the station-worker most eminent in that line. The department of "soils" has been given to Prof. Hilgard, Director of the California Station, and he is now beginning correspondence with the different stations in the U. S. with reference to soil exhibits. It is proposed to show soil samples from perhaps 12 representative regions in each of the larger States, taking the soil from the surface to a depth of three to four feet, and showing them as their layers stand related in nature. There will also be notes of native growths and maps of the prevalence of the sample soils. The work for each State will be done by the local station, according to the plan devised by Prof. Hil-

gard. The display will be of great interest, and when it is remembered that this is only one of a dozen or more departments of station work, it will be seen that the Government building at Chicago will devote much space to this department of national activity.

THE MILITARY AT THE YOSEMITE RESERVATION.—Captain A. E. Wood, who has been detailed by the War Department to protect the Yosemite Reservation from the depredations of sheep and cattle raisers, has decided, after a thorough investigation of the valley, to locate a permanent camp for his command on the south fork of the Merced River, near Wawona—subject, of course, to the approval of the authorities. The Captain anticipates no trouble with the owners or herders, but believes his men will have their hands full in keeping out those herds which have for years been accustomed to follow up the receding snow without any restriction or attention on the part of those who claim them.

STATE BOARD OF TRADE.—At the meeting of the directors, on Tuesday of this week, E. W. Maslin was chosen secretary and manager. Mr. Maslin has much experience in such work, knows the State from end to end, and can be of great value to the State in his new field. It is reported that the board may secure new and more spacious quarters in the basement of the new Crocker building on Market St., opposite the Palace hotel.

## The Secretary of Agriculture.

Pacific Coast people will be glad to see "Uncle Jerry" Rusk, a member of the Presidential party, during its progress upon the western rim of the continent. It seems that the cattle interests in Texas were found in such condition that the business did not arrest Mr. Rusk, as was anticipated, and he was able to continue his journey westward. This will allow the Secretary of Agriculture to make many eager acquaintances on this coast, and will give him an opportunity to catch visions of the general characteristics of our country and a knowledge of its production, which will be of direct value to him in his work. Mr. Rusk has impressed California people very favorably. Those who have called upon him in Washington have found his interest keen in affairs they desired to present to his attention and his greeting cordial. Such, as we infer from the tone of our Eastern exchanges, has been the general experience with Mr. Rusk as Secretary of Agriculture. He has given close attention to the agricultural need and requirements of the country and has secured legislation which has proved promotive of agricultural interests. To the great cattle industry of the central West he has given unremitting attention and has received emphatic approval from cattle-growers' meetings. He has shown himself thoroughly in earnest in advancing agencies and organizations devoted to agricultural progress. The Agricultural Stations, the Farmers' Institutes, and other farmers' institutions, have felt his strong and sympathetic impulse. He will receive a cordial greeting.

Jeremiah M. Rusk of Wisconsin not only sprang from the farm, but chose agriculture for his means of livelihood after attaining his majority, and was one of the pioneers in laying the foundations for the present vast agricultural interests of the Northwest. He was born in Morgan county, Ohio, in 1830, and worked on his father's farm until he reached his majority. He was 23 years of age when he removed from the State of Ohio into Wisconsin, taking a farm near Viroqua, Vernon county. In 1862 he entered the Union army and began a military career which was distinguished and honored. He was Major and afterward Lieutenant-Colonel of the Twenty-fifth Wisconsin regiment, and Brevet Brigadier-General. Shortly after the close of the war, he was elected State Bank Controller, an office which he filled from 1866 to 1870. His next public position was that of member of the Forty-second Congress in the House of Representatives. He served three consecutive terms in Washington. In 1881, Mr. Rusk was elected Governor of Wisconsin. In May, 1886, Gov. Rusk gained a national reputation by his firmness in suppressing the anarchist riots in Milwaukee. In March, 1889, he became a member of President Harrison's Cabinet, taking the portfolio of agriculture. His department of governmental work has grown under his hands. He has labored for the reformation of abuses in it, and for the increase of its effectiveness. He has been happy in the choice of his subordinates, and has used their abilities with excellent effect. We would have preferred to show him the Pacific Coast at harvest-time, but he can learn from the rich promise of the fields, and the wealth of the blossoms, something of what the Pacific Coast can do.



## CORRESPONDENCE.

Correspondents are alone responsible for their opinions.

## In San Gabriel Valley.

EDITORS PRESS:—We of the north have been led to believe that in Pasadena we would find a city of unfinished and unoccupied houses, huge foundations of projected brick and stone blocks on which work ceased when the "boom" collapsed. We have also been told that the outlying country grew more surveyors' stakes than farm produce, and that the harvest was more profuse of town lots than oranges.

Pleasant, indeed, was the disappointment that awaited me when, a few days ago, I paid my first visit to Pasadena and the San Gabriel valley. The city itself differs but little from many of our thrifty northern towns—Raywards, for instance. Its buildings are perhaps more pretensions and more graceful in architecture, the extreme cleanliness of its bituminous paved streets forming a very attractive feature. I saw but one unfinished house on which no work was being done, and the house agents' signs were not more numerous than in other cities of like population. A stranger soon forgets amid the life and motion of Pasadena's streets and the hospitality of her inhabitants that there was once a "boom" and that it has fled.

Through the kindness of Mr. W. G. Arnold, one of Pasadena's prominent business men, and a member of the Arnold & Mills Co., I found myself seated in a comfortable huggy soon after luncheon, rolling over the main highway toward the Sierra Madre Villa (now no longer a public health resort). On either side of our road waved fields of thickly sown barley, interspersed with occasional orange and lemon groves, from whose blossoms floated that richest of rich perfumes through the sunny spring air. To the left towered the lofty site of the projected Southern California Observatory, Wilson's Peak, the zigzag road to the summit being plainly visible from the highway. Farther off in the distance could be distinguished the snow-crowned summit of Old Baldy, bringing a cool inspiration into the warm air about us.

Just where the city limits of Pasadena join those of Lamanda Park, grow the fine peach and apricot orchards of Mr. Bonine, the owner of 50 choice acres, 40 of which are planted to different varieties of fruit trees. Mr. Bonine is one of those men who makes the fruit business pay, and the shape of his trees shows that he is a believer in the system of "close" pruning.

Next we skirt the northern boundary of E. J. Baldwin's famous horse-breeding farm, the Santa Anita ranch, which presents a striking contrast, with its dense growth of live and white oaks, and rank underbrush, to the thrifty orange groves that line the opposite side of the road.

Many and varied were the orchards we passed. Ol apricots, the Moorpark and Royal varieties were the most numerous, while of peaches, almost every known member of the family has found representation in some one or other of these foothill plantations. The soil is light, warm and black, and is slightly gravelly; in cultivating, it works up like a nursery plat, retaining moisture well, and so releasing the farmer from the necessity of irrigating. It requires considerable time to drive through Mr. Baldwin's property. There are many hayfields, peach, apricot, orange and lemon orchards to be passed, the cozy ranch-house, with its miniature lake in front, the race-track and stables, where we saw the hay filly, Albartine, resting after an exercise.

At last we emerged from a long avenue, in sight of the Sunny Slope vineyard, the property of L. J. Rose & Co. (Limited), with an acreage of 500 acres devoted almost entirely to wine grapes. Some of the oldest orange trees in the valley are growing at the Sunny Slope vineyard, their age being almost, if not quite 30 years. A heavy crop still hung on their branches, and it was my pleasant privilege to eat of the fruit of one of these patriarchs. Here also is a fine lemon and orange grove of about 50 acres belonging to Mr. A. B. Chapman.

Then we come to the tract of the East San Gabriel Land and Water Co., planted to oranges, the young trees looking bright and clean from the effects of a shower the evening previous. A little way farther, and my guide drove through a long avenue, lined with citrus trees, to a pretty, vine-covered cottage, where I had the pleasure of meeting Mr. J. R. Dohbins, well known in this section, and in fact in all California, as a pioneer in the orange-growing industry. Mr. Dohbins is held as an authority on all matters relating to citrus-fruit culture and pests, and a half-hour conversation with him is a treat any patron of horticulture would appreciate. The village of Alhambra lay next on our route, where we saw many loquat trees laden with their peculiar fruit, as yet little known to California palates.

The five-hour drive was beginning to tell on our horses as we ascended the graded incline to the Hotel Raymond, the objective point of the popular Raymond excursions from the East. From the crest of the eminence on which the hotel is built, a magnificent view of the entire San Gabriel valley is obtained, dotted here and there with the settlements of Pasadena, South Pasadena, Garvanza, Alhambra, Old Mission,

Whittier, Puen'te, Monrovia, Glendora, Snsa, Covine and the Sierra Madre Villa. I was glad to observe, in my conversations with the fruit-growers about the valley, a strong opposition to the "State division" scheme, and sorely no resident of Northern California, after once visiting the spot, would ever wish to part with so bright a jewel as Pasadena and the thrifty San Gabriel valley. E. R. S.

## HORTICULTURE.

## Pineapple Growing in Florida.

EDITORS PRESS:—The pineapple, *Ananassa Sativa*, ranks with the orange, banana and mango, the four tropical fruits which are generally palatable on first acquaintance to inhabitants of the temperate zone, and which may be favorably compared in general quality to the peach, apple, pear and grape. Of course the South yields very delicious fruits, but none which so readily appeal to the palate of the Northern home as these four. The pineapple—a "pine" as it is familiarly nicknamed—like the banana, is an indigenous plant, destroying itself by the act of fruiting. The plant grows like a century plant or a screw pine, at the end of the second year sending up a cluster of purple blossoms on a stem a foot or two tall from the center of growth or bud, the fleshy receptacles growing, swelling and filling with nectar and honey and good things to form the insoluble apple. As the plant grows from the center, a new center is now necessary to its life, and a sucker shoots up from the axil of one of the lower leaves of the old stalk and in a year produces another apple, and so on *ad infinitum*. Upon the stem, close under the apple, appear numerous miniature plants, called slips, which are removed and planted to produce other apples in two more years.

The pine is practically an air plant delighting in plenty of heat and moisture but capable of enduring months of heat and drought, plants pulled up and thrown on exposed brush-piles in the burning sun often producing and ripening apples in that position. It prefers a loose, sandy, soil free from excess of lime or other alkali, and will grow on white silicious sand so sterile as to support no natural growth but stunted lichens and mosses, and will bear superior fruit if supplied with abundance of chemical manures.

Along the southeast coast of Florida from latitude 20° south, the production of the pineapple is becoming a very important industry, and owing to the handsome and quick returns for small outlays, is rapidly crowding out all other forms of agriculture. A field of ten acres can be cleared, planted and brought into bearing in two years at a total outlay of \$300 per acre, and \$200 per annum can be safely set as the minimum net returns; \$1350 were netted from the fruit produced on two acres at Eden last season, aside from the yield of slips, these selling for some \$350 more, and this from the common, coarse Red Spanish variety. Of course, this is an exceptional instance, but it is quite safe to say that the hundreds of acres in bearing pine all over this coast averaged over \$300 per acre last summer.

With the choice varieties more than double per acre can be counted upon, but the plants are at such a premium that the poor farmer cannot find the capital to invest in these more remunerative sorts, and as a general thing they are monopolized by the large planters who can afford to hold and multiply them.

Of 30 or more varieties under cultivation here, the Egyptian Queen has, by a course of natural selection, assumed and holds the first place. All varieties known to the world have been introduced by enterprising private individuals and by the Government from the pineries of England and the plantations of Ceylon, but five plants of the Egyptian Queen sent Capt. Burnham in 1885 have superseded and crowded out all competitors by reason of their hardiness, productiveness and commercial value, so that they now outnumber all the other choice varieties on the coast combined. The fruit is a clear, golden yellow throughout, with small, pointed nipples, tender, melting pulp, and a flavor and aroma only equaled by some of the choicest mangoes.

There are other pines equal in quality and some superior in size, but none which combine so many good qualities with its productiveness, health and vigor. The Porto Rico often attains a weight of 10 pounds, and on rich land sometimes 15 pounds, and in spite of its large size it is very tender and of delicate flavor but is a comparatively shy bearer. The Sugar Leaf resembles the E. Queen much in flavor and appearance, but owing to its poor shipping qualities, though excellent for a home market, the slips do not command half the price the Queens do though comparatively scarce.

Slips when removed from the plant can be stored for months if kept warm and dry without losing their vitality, just as Sago and tree fern stumps are shipped from Japan and Australia, apparently dead, to be reawakened to life by the warmth and moisture of the greenhouse. In localities where winter frosts are to be expected, a light covering of grass or palm leaves is laid over the plants, sometimes sup-

ported by rails laid on posts and removed when the dangerous season is past. Fruit is matured from May to August, though scattering apples are to be found at all seasons, and the Queen bears quite a winter crop about Christmas time.

The pine is a most beautiful foliage plant, assuming in the fall brilliant hues of purple, crimson, bronze and yellow, each variety having its peculiar shade or combination of color, so that a ten-acre field of selected varieties, carefully arranged, may produce the effect of a grand ribbon-bed, shading the miniature efforts of the florist with colors and croton. Thus the tasteful pine-grower may indulge his love of the esthetic while gratifying his natural desire for the practical and lucrative and make his artistic flower garden yield him his shoe leather, his expenses to Europe and his hotted beer.

This reminds me of an anecdote of one of our pioneer pine-growers, who may be almost termed father of the industry here. He had a hard struggle for years before the railroad facilities enabled him to ship his fruit with reasonable safety, lived on the proverbial hog and hominy of the "cracker," but as he gained ground instead of indulging in luxuries, the surplus income went directly into an increase of acreage; so he finally determined to set apart certain tracts whose income should be expended for certain luxuries. He planted a patch for clothing and patches for various things, and among others a patch for beer, and when the harvest came the beer patch embraced the above mentioned acres, which netted \$350. What a spree he might have had! His son followed the paternal example, with a slight modification, however; not willing to trust so grave a matter to fortune, he selected his beer patch after the field matured its crop.

Melbourne, Fla. JOHN B. BEACH.

Co-operation Among Fruit-Growers.

EDITORS PRESS:—The spirit of organization and co-operation among the fruit-growers of Santa Clara county seems to be ripe. A strong co-operative drying association has been formed by the growers on the West side of the valley, and the products of the orchards of the members will be prepared for market, and the profits, if any, will be divided among the stockholders. The officers of the association are Col. Philo Herrey, president; S. P. Saunders, vice-president; E. T. Pettit, secretary; A. R. Woodhams, treasurer. A New York fruit-dealer, has already made a proposition to the association to handle all the fruit it can dry.

On Saturday evening, April 25th, the orchardists of Campbell will hold a meeting for the purpose of considering the advisability of forming a co-operative drying association, or of uniting with the west side association and having a branch drier at this point. The advantages of co-operation are too well known and understood to require explanation here, and it is believed that when the matter is fairly and fully set forth, there will be many such organizations in the State, which will result in better prices to those who spend so many weary hours in toil, in caring for their orchards and their fruit. It is worth while, at least, to make the effort, and no doubt other sections will do so. The combine of canners, packers and driers formed in this county last winter will not have things all their own way, as they fondly supposed, for the growers have concluded to have a word to say in the matter.

R. P. MCGILVER.

Campbell Cal., April 18.

## THE APIARY.

## Bee Notes.

EDITORS PRESS:—Yesterday, April 7th, we had a foot of snow here at Grizzly Flats; to-day the storm has passed, the blue skies show signs of continued pleasant weather again, and in two days, if the weather is warm, the snow will all be gone.

The manzanitas have been in bloom quite awhile, and on all warm days the bees gathered considerable honey from this source. At the "Oak Leaf Apiary," in Placerville, the colonies have all built up rapidly and three-fourths of them are at work in the sections. The latter part of last month (March) the first swarm of the season came out. They were Carniolan bees and a pretty large swarm for so early in the season.

Peach trees are in bloom here at an elevation of 4000 feet; pear trees are also starting to burst forth into bloom. A great number of wild flowers are in bloom, but very few of them are honey-producing plants.

To remove propolis and stains from the fingers after handling bees, kerosene oil is about the cheapest and most effective material for that purpose.

To find a queen quickly, blow a few puffs of smoke in at the entrance, give the hack of the hive a few raps, remove the section case and then the honey-board, and in most cases you will find the queen on the honey-board.

Clear, soft, yellow wax is best for manufacturing foundation.

For the early crop of honey, starters are best in section boxes, but for the fall crop or when honey is coming in slowly, full sheets should be used.

If you want to bleach beeswax, run it through a solar wax-extractor a few times.

In a location where bees have a tendency to swarm a great deal, give them plenty of room and ventilation at the proper time.

To make bees enter the sulphur boxes, go to some colony where the bees are working well in the sections, and take out a partly filled one, covered with adhering bees, and give to the non-section workers; and I think in a few hours, if the honey flow and weather are all right, they will commence working in the section.

At this time of the year, after a continued storm, quite a number of dead bees will be found in front of the entrance. This is the season of the year when most of the old bees are dying off, so do not be alarmed to find some colonies pack out two or three hundred dead bees. Colonies that pack out so many bees after a storm are generally the largest in the apiary.

Alfalfa and white sage stand at the head of all honey-producing plants; both yielding in favorable season large quantities of honey of a clear, pale color, and of an exquisite flavor and great density. In all the markets it has ever reached it takes the lead.

The Tanager is about the simplest and handiest of all section cases.

Bees are attracted by the odor of a flower and not by its bright color.

Many bee keepers speak of losing their bees by the bee moth; if there is a healthy colony of bees in the hive, there is no danger of the moth injuring them in the least.

A good time to transfer bees is 21 days after the prime swarm has issued; at about that time all the young bees will be hatched, and you can easily transfer without many bees.

When you find the drones being killed off in the breeding season, you may be sure that there is not much honey coming in.

If you want to plow around your hives, close the entrances up early in the morning with a wet rag. Strange to say, this will not irritate them in the least, but tends to quiet them, and they will not make any attempt whatever to get out; that is, if they are not confined over two or three hours.

A Nebraska strawberry grower, after a succession of failures of crops, bought a swarm of bees for the sole purpose of fertilizing his strawberries. With the advent of the bees the strawberry vines afterward produced in abundance.

Candied or crystallized honey that you cannot sell, you should keep to feed with in times of a scarcity of honey.

Honey is now used to a great extent in the manufacture of honey jumbles, honey chocolate creams, honey chocolate tablets, and many other kinds of cakes and candies.

## Questions Answered.

A few days ago I received a letter from a Monterey county bee keeper from which I extract the following:

"I have read your article on queen rearing in the PACIFIC RURAL PRESS and would like to ask you a few questions further in regard to the same matter.

When is the proper time to commence substituting good queens for poor ones, or rather raising queen-cells?

Can you give an infallible rule to ascertain when a queen should be removed?

I had some colonies last summer that did almost nothing, while others gave 75 pounds or more.

Anything you might write, either through the RURAL PRESS or to me personally, would be appreciated."

Answer: The proper time for superseding queens is when you find the colony declining in prosperity; and that is easily observed by opening the hive and noting the condition of their domestic affairs inside. There will be a scarcity of honey as compared with other colonies and the brood area will be considerably limited; there will be no rush of bees at the entrance like in all vigorous, powerful colonies.

Some queens are good for three or four years, while again others are not much good after the second year.

It will pay you in dollars and cents to remove all poor and inferior queens as early as possible in the spring. Unless you practice this weeding out process, you will find that in 100 colonies there will be 10 or 15 that will be far below the others in profit, and sometimes they will not yield anything, whereas if you had killed the poor and inferior queens early in the season and introduced good ones in their places you could have obtained considerable more honey.

Some apiarists prefer to let the bees do their own superseding, but in my opinion it is a practice that will not pay. The way to prove it would be to supersede 50 colonies in your apiary, and leave about the same number to take care of themselves; at the end of the season I think you will find the 50 colonies that you looked over and superseded queens where needed will have given one-tenth more honey.

Some of the most extensive eastern apiarists practice removing the queen after the second year. Whenever I find a colony that is not up to the usual standard, I think it is time then to remove the queen whether she be two years old or four.

Queens reared in the spring are far superior to those reared in the fall, and if you have a number of colonies to requeen, the spring is the best time to do it.

Use the best queen mothers you have in your apiary to rear all young queens from, and also have the drove mother her equal.

S. L. WATKINS,

Grizzly Flats, California.



## FLORIST AND GARDENER.

### Flowering Bulbs and Irrigation.

EDITORS PRESS:—Your correspondent, Mr. A. L. Liance, seems to think that the bulbous plants usually sold under the name of Dutch bulbs would be likely to suffer from the daily or bi-weekly bath they would get during summer in California gardens. This may be true in many cases, but it certainly does not cover all. For instance, here is *Eucomis regia* that comes up about the first or middle of March and remains with its growing and green into the fall, the flowers appearing in summer. The bulbs of this plant, according to the catalogue I have, must be kept dry in winter, that being their resting season, and they consequently should be lifted and stored in the house until toward spring. This I have not done with one bulb purchased in the fall of 1888 but have allowed it to remain in the ground three winters and from the fact that it has quite a family around it, and is looking very lively and bright at present, it could hardly have been harmed by the exposure to which it has been subjected.

*Oxalis Deppeii* is another instance. This bulb, however, needs raising after its leaves have withered in the fall, to remove offset, the increase being some two or three hundred fold. Now, I will say, if water fails to injure these two during their quiescent, or non-growing season, why should it hurt, or destroy, the bulbs of California, or Spain, or Mexico, whose resting spell is set during the months from May or June on to November or December. The hrodiæes and the calochortus natives of this State, are sold by the Dutch florists for ordinary gardens the world over, in many of which they must be well soaked during their resting period. The four species of *Fritillaria* named by Mr. Liance in his last letter, are all catalogued and sold by our Dutch friends at good round prices, and they are not mentioned as needing other treatment than is given common garden bulbs. The crocus, hyacinth, scilla, narcissus, the alliums, most of the ornithogallums, the coopersia, many species of oxalis, the bulbous iris, the amaryllis, the lily, are all permitted to remain the year round in the border, or beds of roots beneath the lawn's surface.

The only occasion for raising these bulbs once every three or four years is for the purpose of removing increase. As to the tulips I cannot speak with any certainty. Some are now blooming in my borders that have been in the ground several years, while most that were planted two or three autumns since have disappeared, whether because of rot or a fatally mutilating thrust from the little hand fork or larger spade, I cannot say. They are usually lifted after flowering when the leaves have faded and the scape has yellowed, then stored away in paper bags or dry boxes until fall. The *Ixia*, *Sparaxis*, *Bahiana*, *Iritonia* and *Freezia* are left by me in the ground, untouched the year through. Of this group the *Freezia* seems the most satisfactory though it is not on account of any special treatment.

*Triteleia uniflora*, with its variety *alba*, are as successful as any one could wish notwithstanding they have received with all the bulbs previously named, the same amount of irrigation through the summer as the ordinary garden perennials with which they are growing. The *Triteleia* increases very rapidly both by seeds and offsets, and it would not take long for an active gardener with a start, we will say of 25 or 50 bulbs, to supply the entire population of the state with all of this one species they would need or care for.

I will say, at the same time, that it is well worth the space that might be given it, as it will cast aloft into sight for two months, at least, many pretty star-like light blue, white or purplish flowers in return simply for a sunny position and root-room in good loamy soil. I would like to see it planted in glens where it would have ample sunlight and a fair supply of moisture up to the 15th of this month. It would thrive in such places I am sure, and why not as well two miles or ten from one's house as in the garden by its side.

Mr. Liance mentions the *Zigadenus*, a prized plant abroad, two or three of our species being in cultivation there. I have two plants of *Zigadenus Fremonti* in my yard, found some 6 or 8 miles from town in the middle of a much used road and which I lifted and transplanted while growing. The entire block of earth in which they grew must have been moved with them, so that all of the buried portion of the plant remained practically undisturbed. Am sorry to say, however, that in securing the two I have, perhaps ten others were destroyed, which large loss could have been avoided by taking the plants and waiting patiently until fall to raise and transfer them. The practice, we know, is usually lacking, but it pays well, is most economical, to use a little of it in this work of wild-flower gardening. My two *Zigadenus* plants are now in flower and I hope to have seedlings from them next spring—many such if the 50 three-celled capsules of each yield me the normal number of seeds—that is to say, from 1500 to 3000.

A wonderful exhibition of fruitfulness this, but equalled, perhaps, by the *Fritillaria*, the *Eritronium*, the *Calochortus* and some others of the Liliaceæ.

Your correspondent will see, from the fact that I still lean upon the rubber hose, that my

garden is not yet one of the kind that is needed for this State. Much of my present space is stocked with the usual perennial—those of the Atlantic-side gardens—and which I find it hard to sacrifice or to part with. I am, however, looking forward, and toward the real California garden—in fact am already gathering in and studying such candidates for it as are accessible to me. The professional florist will need to lend a hand at this work and the amateur can efficiently help by taming the wildlings of his own immediate neighborhood. The larger the force of assistants we have the sooner will he reach the object sought.

B. F. L.  
Santa Clara Cal.

### Primulas.

[Read by Mrs. C. HOHWIESNER before California State Floral Society.]

Primulas are not generally cultivated by amateurs, as florists grow them to such perfection that to most people it seems easier to spend a small sum for a ready-made plant than to undertake to grow them from seed. This latter certainly is more difficult, but it is interesting and fascinating to plant these tiny seeds and watch their development into the sweet-flowered plants which most of us love so dearly.

My attempt at the culture of primulas has been very successful, and for the benefit of those who have never succeeded in growing them, I would like first to say something about the treatment of plants on hand, which are so apt to wither or decay after blooming. My treatment is this: After the old plants, that had been blooming since December, showed signs of resting—that is, when the flowers grew small and pale and a second flower stalk with insignificant buds began to grow out of the center of the first—I watered the plants sparingly, as experience and the loss of two plants showed that the primrose has a tendency to rot if given too much water when not in bloom. Then the plants were divided, if they had branched out into several parts, and all of them repotted with fresh, light soil and placed on a back shelf in the greenhouse, where they had light, but no direct sun, and here they remained till the beginning of December, when they were again repotted into five-inch pots and placed near the glass where they soon were in full bloom.

I am positive that primulas can, by division and proper treatment, be kept from two to three years, if not longer. Even the size of the flowers and brightness of their colors seemed the same. My seedling plants, though only five in number, were a pretty sight! The great fascination lay in the uncertainty of what they were going to be. They were very beautiful—one deep red, one pink with white dots and greenish center, two large white and one delicate pink. The seeds came from Deere & Co., and germinated very readily. I sowed them in May in, or rather on, a mixture of sand, leafmold and rich soil, that I had moistened and sifted very fine into a shallow seed-pot. The soil was slightly firmed down, the seed sown on it and covered very lightly with fine sifted soil. I kept the seeds moist and covered with glass, and the result was that, after about two weeks, tiny leaves appeared that grew for about eight days, when the plants were large enough to be pricked off. This proceeding is absolutely necessary to the healthy growth of nearly all seedlings, for they generally grow so thickly that unless they are thinned out and planted farther apart, they die from want of room and strength.

This pricking off or replanting is also done to induce a stronger and more compact growth. The change in a plant thus treated is noticeable after a few days. If it looked thin, spindly and overgrown in the box in which it grew, it will form longer roots and grow bushy and strong in its new, roomy quarters.

So when the seedlings are large enough, a box or pot should be prepared with soil, similar to the first, and the young plants lifted with a splinter of wood or a blunt penknife, and placed in it one by one at regular distances, say one inch each way apart. It is best to keep them covered with glass for quite a while longer, until they are strong enough to be potted off into thumb or inch pots. When these are well filled with roots, and only then, transplant to a size larger, and continue this till they are in five inch pots, when the plants will be ready to bloom, which will be about the middle of December. A five-inch pot is fully large enough for a strong plant; in fact, I have found my plants to bloom better when a little cramped for room than when they had to exhaust their strength in a large pot. At present the seedling plants that I was speaking of are still flowering. Surely, 3½ months of bloom should amply repay the previous months of care.

Everybody knows the good that lies in removing all flowers from a plant as soon as they fade. So I did the same with my Primulas, and attribute the long duration of their blooming season to this fact. When their beauty is gone, they will have to be treated the same as the old plants of last year.

I must tell you of an experiment I am trying, and that is of growing the seeds myself for my next year's supply of seedling plants. In picking off the faded flowers, I noticed on the plants some exceptionally large seed vessels, about two on each plant. The others were so small that I opened some and found them empty, as I expected. So they were all removed but the large ones, also each flower as it faded, and the result is that the seed vessels have begun to

swell and swell, until now I am in daily dread of them breaking unawares; but if fortune favors me, I will have matured seed in two to three weeks, which I will plant in May, with the fond hope of reaping a lot of young plants for next spring blooming. I noticed this peculiarly—that only those plants that are blooming in our hay-window in a dry atmosphere show a tendency to mature their seed, the flowers of those in the greenhouse decaying as soon as they fade. So my seed-producing plants must remain where they are, being no longer ornamental. *Primula obconica* I have never grown from seed, but intend to do so this year. I have been informed, though, that their treatment is the same as that of *Primula Chinensis*. This is certainly true of the large plants. We had one since February, 1890, that continued to bloom till late in fall, when I divided and repotted it just like the other species, and each young plant has had from six to eight flower stalks on it continually since Jan. 1st. Its flower stalks are very long and graceful, and even when cut and placed in water, the blooms remain fresh for fully ten days. Now, in conclusion, I would refer those who may not find anything new or useful in what I have said to some well-known book on floriculture, such as "Henderson's Handbook of Plants," and "H. J. Floriculture," in which there are long and detailed descriptions of the whole class of plants of which *Primula Chinensis* and *P. obconica* are members. I very seldom derive much good from books of that kind, practical experience and experimenting, though often rather expensive, have always and in everything been my best instructors.

## THE VINEYARD.

### Raisin Exchange Proposed at Fresno.

The Fresno *Expositor* is giving much attention to the establishment of a raisin exchange in that city. In a recent issue it says:

There is, of course, a great deal of difference of opinion as to how the Exchange should be conducted, but the necessity of such an institution is conceded by most of those who have given the subject considerable thought.

While the industry is still young, the need of protecting it is very apparent, and there is no good reason why steps that will benefit the grower and packer should be postponed until it has assumed greater magnitude. There is no necessity of going beyond reasonable expenditure in the establishment of an Exchange, and if all engaged in the industry will act together it can be conducted very economically.

"In my opinion," said O. B. Olufe, "we should have such an Exchange in Fresno. Standard samples should be established and raisins bought and sold by the same. An arbitration committee, whose decision should be final, would settle any disputes that might arise. Yes, packers and growers should combine in starting the Exchange. True, the packers may object, and this was the case once before. They were of the opinion, I believe, that if the growers joined in such an association they would raise the price of the product in the sweat-box."

"Now, an Exchange would not necessarily be formed for the purpose of controlling prices. Its object would be to facilitate business by systematizing it, to bring about regularity in the packs, and generally to put the industry on a more stable basis."

"Eastern agencies could be established for the purpose of selling more directly to the consumers, and other measures taken that will prove advantageous to the producer, packer and consumer alike. I am very much interested in this matter, and shall do my best to bring about the establishment of a Raisin Exchange in this city. I took some steps in this direction a year or so ago, but did not meet with much encouragement. I believe the present time much more auspicious, however, for the abuses of last season have had the effect of calling the attention of those interested in the industry to the necessity of some action that will do away with them. I have prepared a prospectus on the subject of a Raisin Exchange, to which I shall endeavor to get the signatures of those engaged in the industry."

### The Prospectus.

The following is a copy of the prospectus prepared by Mr. Olufe:

We, the undersigned, hereby agree to associate ourselves for the purpose of organizing and maintaining a Fruit and Raisin Exchange in the city of Fresno, and incorporating the same under the laws of the State of California, with the following objects in view:

1. To promote the interests and convenience of dealers and growers in domestic products.
2. To centralize the fruit and raisin trade of the San Joaquin valley in Fresno city.
3. To inculcate and uphold just and equitable principles in trade; to establish and maintain uniformity in commercial usages; to acquire and disseminate valuable business information and to adjust controversies and misunderstandings between the members.
4. To properly organize said Exchange, electing officers, and providing in the by-laws for proper modes of arbitration; the selection of official standard samples of the different kinds, grades and qualities of fruit, raisins and other produce, and to provide for the adoption of such measures as may promote the welfare of the fruit and raisin trade and industry.
5. And we agree to pay \$5 initiation fee and such quarterly dues (which will be for the present

the main support of the exchange) as a majority of the subscribers and charter members may regularly adopt, say 50 cents per month.

T. C. White, the well-known vineyardist, has long been in favor of taking such measures as would systematize the raisin industry and give it greater stability. He has expressed himself frequently on this subject. To an *Expositor* reporter he said:

"The exchange will not only be beneficial to producers in the matter of production, but in the matter of disposing of the product. I do not quite see at present how the packers and the producers could harmonize their respective interests. The packers might consolidate and establish grades to which the producers should conform, or they might start an exchange for the purpose of buying, packing and putting the raisins on the market. They would be inspected as received from the growers, to see if they were up to grade, being rejected if they were not. Again, the producers might combine and do their own packing and conduct the Exchange, but in either of these cases one of the two classes most interested would, to an extent, be left at the mercy of the other. The best results would be obtained if the packers and producers would harmonize their interests."

"If an Exchange were established there would be monthly meetings held at which matters of interest to those engaged in the industry should be discussed, the younger growers profiting by the experience of older ones. When the time for cultivating is near at hand let the members meet and discuss this matter; when sulphuring is about to be done, let them come together and exchange views on sulphuring, and so on with picking, curing, packing, etc."

### The Grape-Growers' Organization.

EDITORS PRESS:—The grape-growers and wine-makers of Cupertino district, Santa Clara county, have fully resolved to incorporate and co-operate, hoping by such action to better their condition. They are fully aroused to the fact that they must do something in their own behalf, or they will be driven to the wall. Several preliminary meetings have been held, as already noted in the *RURAL*, and the movement seems now to be in a fair way to succeed.

On Thursday afternoon, April 16th, the growers and wine-makers met at Cupertino, and were addressed by Col. R. P. McGlinchey of Campbell, on the advantages of co-operation and organization. The colonel is one of the best organizers in the State, having been engaged for years, when a resident of the Eastern States, in organizing the dairy farmers, and his plan, as presented to the meeting, was heartily approved of. In his address, he plainly told the grape-growers and the wine-makers that if they hoped to succeed, they must stand shoulder to shoulder in the movement; that individually, they could do nothing, but if they were in earnest, and united, they would succeed against all opposition; that they need not fear the threat of a boycott on the part of the wine-dealers of San Francisco; that the term was un-American, and showed great weakness on the part of those who used it. He suggested that the growers and wine-makers of the county organize under the State law, and form a joint stock association, erect a central winery, distillery and watering cellar, and, if necessary, go into the market and sell their own product; have a brand and make the wine of the highest possible standard, bearing in mind that quality was better than quantity.

At the close of Col. McGlinchey's address, a subscription list was prepared and some 25 persons became members, and at the meeting to be held on the 23d inst., this number will be largely increased.

Only those who own vineyards, or whose interest as growers is greater than as manufacturers of wine, will be eligible to membership. This plan is adopted so as to prevent the association from falling into hands that will work an injury to the growers who have no means of working up their own grapes. The meeting requested Col. McGlinchey to draw up articles of incorporation, and together with Col. Hall and A. Malpas to prepare a set of by-laws for the government of the association.

Col. McGlinchey and B. Rodovich were appointed a committee to visit Napa and Sonoma counties with a view of obtaining the co-operation of the grape growers there as well as in other wine-producing districts of the State. The press of San Francisco and Santa Clara county was thanked for the able manner in which it had presented the cause of the grape-growers in their fight against the wine trust of the State. If this movement succeeds, and there seems to be little doubt of it, the grape-growers, as well as the consumers of wine, will be benefited by it, and the vineyardists in all parts of the State will receive a better compensation for their labor in the future than they have in the past few years. It is a well-known fact that there is no profit in producing wine at nine cents per gallon, and that is the price offered by wine-dealers at the present time, and it does not look as if they would offer any more for the coming vintage.

Now is the time to organize; let other sections prepare for the coming of the committee from the Cupertino district.

Another meeting will be held on the 23d to complete the organization.

VITICULTURIST.

Santa Clara Co., April 17th.



## PATRONS OF HUSBANDRY.

In our Rural Press Official Grange Edition, issued every week, will be found additional matter from this and other jurisdictions, of interest and importance to Patrons. Any subscriber who wishes can change free to that edition.

## Direct Voting for U. S. Senator.

EDITORS PRESS:—Will you kindly give me space in the farmers' paper to address the readers of the PRESS, especially those who are agitating the question in favor of the voters, at general elections, casting their ballots direct for United States Senators. I have not seen as sound reason given for it as the good old men who organized this Government gave why we should elect as we do now. I know our new-fangled statesmen tell us that the times have changed, yet I doubt if any one will claim that he is more patriotic than were our forefathers.

That times have changed there is no doubt, for I well remember when the man who was industrious and saved his earnings was usually selected to represent the people. Now it is the man that spends his earnings for drinks and wants to work only eight hours a day, and very poorly at that, who appears to be the man that is looked up to. It seems to be a crime to have saved a little. But if we take for example the two last Legislatures, does it appear to farmers, who pay 70 or 80 per cent of the taxes, that it is an improvement on electing rich men.

I am farming in Colusa county and am opposed, as a rule to dividing either State or county, for I see nothing in it, but more offices. I have neither seen nor heard any one speak well of the Legislature of two years ago. It appeared to belong soul and body to some "Buckleyites." It spent the farmers' money very lavishly, and what good did they do? As worthless legislators, they can only be beaten by the last. It is generally conceded that hallo-box stuffing is ruinous to a republican form of government, yet there are many who believe that members, by a vote of 50 against 19, indirectly endorsed hallo-box stuffing. Least some of the taxpaying readers did not see what is reported to be the facts, let me state them. This county, in the first place, is two-thirds Democratic, yet the feeling is so strong against division that the Republican Assemblyman was believed to have been honestly elected. We have a railroad station called Willows, the head center for division, where the election returns at one polling-place were kept two or three days before forwarding to the county clerk, while all other returns similarly elected were handed in the day after election. When all the election returns were canvassed, it appeared that Mr. Eakle, the Democrat, was elected by, I think, 23 majority.

Mr. Campbell, Republican nominee, contested. At the examination in the proper court, before two justices, testimony is said to have been introduced showing that names (I think it was 44 names) had been taken off the great register, one after the other, just as they appeared in the register, and a ticket for each named used was stuffed in the hallo-box. It was also shown by two voters that they voted last, just before the polls were closed. It was stated that each one of the 44 men whose names were used testified that they had not voted at Willows nor had they been there on election day. Besides this, some names were voted at more than one precinct.

When the Legislature met, Mr. Campbell went down with all this reported proof in his pocket and claimed his seat, and although the complexion of the members of the Assembly was called Republican, yet the Assembly gave the seat to Mr. Eakle. Mr. Campbell is not a poor man. He farms rented land on a large scale. Mr. Eakle owns 17,423 acres. Brother taxpayers, can you see any reason why the Assembly seated Mr. Eakle? Is this not endorsing hallo-box stuffing, provided what is believed by the many here be correct?

Every voter that wishes can personally be acquainted with his representative in the State Legislature, while it is rarely he can with his representative in the U. S. Senate.

Would it not be best to postpone voting directly for U. S. Senator till we can do better at home? My somewhat long experience teaches me that it is best to let well enough alone and appreciate the grand work done by the fathers of this, the best Government known.

Sites, March 16, 1891. P. PETERSON.

## Grange Picnics.

Name.	Place.	Date.
San Lucas.....	San Lucas.	Friday, May 1.
Tulare.....	Cent'l Grove.	Sat., May 9.
Sutter Co. Granges.....	Yuba City.	Friday, May 1.
Placer Co. Granges.....	Loomis.	Thurs., May 14.
Sonoma Co. Granges.....	Bennett Val.	Sat., June 27.
Lockeford.....	Lockeford.	Wed., May 13.

Notices of other picnics will be added to the above list when received.

REUNION AND PICNIC OF MAGNOLIA GRANGE. Magnolia Grange will hold a reunion and picnic at Magnolia Grove, just across Bear river, in Nevada county, on Friday, the 24th inst. The Placer Republican says that besides numerous games, races and other amusements for old and young, a select program of appropriate exercises will be carried out by the members of the Grange, to be followed by a social dance in the evening. As the proceeds of the picnic are to be used in improving Grange hall, a large crowd is expected and desired day and night. All will be welcome.

## Starting Point.

[Written for the RURAL PRESS.]

Useful Hints by An Old P. M.

The starting point seems to be an important thing to everybody and every thing now days. When a person is called upon to open the debate or make a speech when there has been nothing before the house, 'tis then that they will appreciate the starting point or wish there were none there.

It is almost as hard to nute the first few lines in a letter or essay as it is to write the balance of the article. There is a comprehensiveness about the starting point that seems to govern the balance of subject. I like a smooth, clear starting to writing or speaking. I notice that most speakers and lecturers have an abrupt way of starting their subjects. They do not use that nice distinction of introductory remarks. I claim it is a difficulty that few succeed in surmounting. Now, as lecturers and speakers strive to please, and as pleasing means audience, and audience means living and reputation, why should they not strive to improve their manner as well as matter?

We can learn valuable lessons from the lower order of creation about starting points. For a barnyard illustration, take the frisky pullet that is contemplating a domestic life and wishes to enumerate her posterity by the score. She disdains the abrupt starting point of an incubator and baker's dozen of store eggs. With that nice sense of preliminary and introductory work, the task of the season begins by a deposit of one a day, except Sundays, when she may lay two (too). In this case, she does not trust her posterity to the uncertainty of the decision of a lyceum debate, when the subject is, "Which is the mother—the hen that lays the egg or the one that denies herself of a promenade, food and scratching for 21 days?" A good starting point is a valuable thing to possess with a balky team. So thought the Yankee when he was working the oxen he purchased from a Quaker. The former asked the latter if they were true to pull. The Quaker replied, knowing full well the judgment that befell Ananias and Sapphira, "Thee will be pleased to see them pull when at the foot of a hill."

It has been a debatable subject in my mind whether the starting point was when the girl was left on the borders of a chipyard, when returning from singing school, or when the old lady was asked if you could buy spring bonnets and shoestrings for her daughter the rest of her life.

What led to these thoughts was that I have noticed that prominent or official members of social or secret orders were always called on, first to lead off, start the discussion or entertainment. I have frequently been embarrassed and my wife taxed to their utmost to find a proper starting point. I shed my sympathy as a reptile sheds his outer garment in favor of President Harrison, while making his Western tour, as he is called upon to make a speech in every city and hamlet where he calls. If like the Czar of Russia he could command the pencil pushers and telegraph operators to take a vacation until he returns to the White House, one speech would answer the entire round, and give perfect satisfaction.

Now-a-days a repeated speech becomes stale, and the exhalations scent the buzzards afar off, and none but theatricals have a license to repeat.

Originality is not stored in every brain or purchased in every ink pot. Therefore, the greater the effort should be to avoid repeating, and try and get a good starting point.

My starting point seemed to be when my brother wrote to me from California that "I had brains and could succeed." I frequently have doubts of the first part of his assertion, so I get the letter and read it over again, to see if the ink has faded or grown dim. I think it much better to accept the statements of my brother than make the personal examination.

The text I offer is starting point; who will preach that I may listen. D. F.

## How Farmers Do in Illinois.

Charles Deputy writing from Fairmount, Illinois, March 28th, mentions about his father (W. C. Deputy) dying at Visalia many years ago and estates that the only member of the family present at his death was a brother from whom he has not heard for 15 years, and who he would like to hear from, either directly or through others. In concluding his letter he gives the following interesting items about the Grange work in Illinois:

"Farmers here are wide awake and becoming more and more interested in their own welfare. Experience has taught us that we must rely upon our own class for all benefits. We are on the right track and the rapidity with which we are gaining, proves this. We have excellent business arrangements. Our Order has broken the hindling twine trust, thereby getting our twine last year for 9 to 10 cents per pound, where we had to pay 18 cents per pound before we organized. This year we will pay only 7 or 8 cents."

"We are putting up more houses and intend shipping our own grain, and while we do not talk politics in the Grange, we manage to jog our representatives in Springfield now and then—asking them to give us a show along with the railroad corporations. Party feeling is dying out and farmers see that the only class that does them any good at Springfield is the farmer, and

the majority vote for the farmer. Our Grange numbers 10 members. This county (Vermilion) is the hanner county of the State, having the greatest number of Granges of any other county and still gaining strength."

## Old Maids, Bachelors and the Grange.

EDITORS PRESS:—"Old Maid," in your last issue, signified her belief that too much mechanical jaw movement is wickedly wasted by the Granges on taxes and tariff and transportation, and if she could have her own sweet way, she would capitalize all this energy and expend it wholly in perfecting a process by which to bring our young men into martyrdom—I meant to have said marriage. She realizes the lamentable tendency of the young men to bachelorhood, and she desires to save them. She seems to think the discussion of tariff is like chewing gum—you can masticate it, which leads to more mastication, but you cannot finish the job. She suggests the Grange take hold of the bachelor question and solve it for all time. As a sister of the Order and the mother of a wonderful boy, I wish to endorse "Old Maid's" sentiments, and to extend to her my sincerest wishes that the Grange will take the matter immediately under consideration, and help her out of her present embarrassing dilemma. The situation now for "Old Maid" is apparently desperate. It is so for all spinsters. I know this by personal experience. I have only been

Out of the Ranke a Few Years.

During my stay there of 18 years, I was a prominent figure, but without the endorsement of the Grange. I fished constantly for bachelors. I used every kind of hook, every klud of line and every kind of pole; but still my reel went empty. I tried every kind of bait, such as sentiment, love, sympathy and coquetry as I thought would best suit the conditions, but I scarcely got a nibble. When I did, it didn't amount to much. The smallest shadow would scare him away and prevent me from landing him. I used tact and tongue. The amount of power evolved by the latter would have been sufficient to run a war steamer on a three-months' cruise, with the steam shut off. I used all my feminine arts, but they were fruitless. I determined at last to use force in bringing the old bachelors to their senses, so I used a drag-net in place of a single line, and I caught more than I had any use for. I had them, and I let none get away for awhile. I asked them to make me sealed proposals, accompanied by a check as an evidence that business, and not fooling was meant, and by this means I caught my present husband, Edwin Thistle, with whom I shall live until divorced by law, or death does separate us.

I am glad "Old Maid" has brought up this subject for discussion. I know good will come from it. I know how hard it is at present to land one of the horrible old ugly things, and certainly something should be done. I know a number of poor huttonless, venerable, unmarried gentlemen, who are at present individually paddling their own crafts, who certainly are well meaning enough, but from a lack of reliable data concerning our gentleness and good traits, keep aloof from us—poor misguided men—who would not do so if proper means were devised to diffuse needed evidence to them, that we are so nearly heavenly beings, that when we sing, the angels join in the chorus. Hoping, "Old Maid," you will receive the endorsement of the State Grange for your splendid idea, I am, sisterly yours,

MRS. JANE F. THISTLE.

Union House, April 19.

## Tulare Grange Picnic.

At Centennial Grove, May 9th.

Tulare Grange was well attended Saturday, April 18th, and all arrangements for the picnic have been made. If the weather permits, we hope to make it the largest basket picnic ever held in Tulare county. The Alliance from Fresno county is expected to attend in goodly numbers. The Railroad Company will run a special train for them. At least, such arrangements are about made. It is hoped to have them stop the train opposite the grove, which will be about one-half mile from Centennial Grove. The committee will announce program next week.

I beg leave to second the motion made by Watsonville to have a State picnic. I think in a few years it would be of great benefit, both to the farmer and manufacturer. If it could be on the coast, or along the banks of a river, it would make it very pleasant for those who camp out. The last day I attended Williams Grove Picnic, Pa., there were 20,000 persons present. It was immense. I am glad the executive committee has adopted the trade-card system.

Fraternally,

E. C. S.

## Lockeford Grange Picnic.

EDITORS PRESS:—There will be a Grange picnic held at Lockeford May 13th. All Granges in the county have been invited to participate in making it a grand success. The State Master, Mr. Davis, has promised to be here and we expect a good time. Come, every body. Lockeford Grange is flourishing. New members are being added, and we know no snob word as fail. Farmers are quite busy, but will soon have more leisure. We expect much enthusiasm from our picnic.

MRS. S. L. LOCKE, Sec'y.

Lockeford, April 18 '91.

## A New Grange at Vacaville.

EDITORS PRESS:—A new Grange was organized here this afternoon with 20 charter members. Bro. G. P. Loncks officiated as organizer, assisted by the writer. As but four or five of the old members of Vacaville Grange, No. 5, were among the persons composing the new Grange, it was unanimously voted to apply for a new charter under the name of Vaca Valley Grange. The following officers were elected and installed for the ensuing year: Smith Ashley, W. M.; T. H. Buckingham, W. O.; G. W. Allen, W. L.; P. S. Bragdon, Steward; J. R. Sears, W. A. S.; Mrs. M. C. Smith, W. C.; Chas. Packard, W. Treas.; J. A. Webster, W. Sec'y; S. Z. Hartshorn, G. K.; Mrs. J. R. Sears, Pomona; Miss Hartshorn, Flora; Miss Geneva Smith, Ceres; Miss Ella Ashley, L. A. S.

Look for a good report from this new accession to the Grange ranks. The members are composed of the best and most intelligent citizens of one of the most enterprising and prosperous districts of California; then why should we not be pardoned for predictions of an encouraging character? They were hard to move, but having taken the step forward, they seem determined to hold their ground and press onward in the accomplishment of the grand purposes of our noble Order.

F. B. L.

Vacaville, April 18th.

Since the above came we have received further information from General Deputy Loncks to the effect that the prospects are good for an immediate large addition to the members. Of the charter list, 15 are new names. Many of the former members of Vacaville and Elmira Granges will renew their membership.

News such as the above we are heartily glad to receive. We are pleased also to note the fruition of the seed so ably and efficiently sown by our Bro. F. B. Logan, who has been working diligently and faithfully in the good work for the past few weeks, and we hope to hear soon of other harvests from the labors of our worthy brother.

## Gridley Grange.

EDITORS PRESS:—On Saturday, April 18th, myself and wife visited Gridley Grange, where we found a goodly number of Patrons in waiting. Shortly after our arrival the Grange was called to order by W. M., Bro. Hntohine. After going through the regular order of business the conferring of degrees was reached, when by request of the W. M., I took the chair, and conferred the third and fourth degrees on a class of three brothers, after which we repaired to the dining-hall to partake of the Harvest Feast. Two long tables were soon filled with true Patrons who did ample justice to the good things spread before them. After the banquet then came the feast for the minds. The program was fine. After this came the Good of the Order, which was participated in by Bro. Myers, W. M. of March Grange and Bro. Luther, W. M. of North Butte Grange, Bro. Fisher, and Sister Clyma. Sister Hedger recited "Take Care of the Boys"; song by Sister Humphry; Sister Friehe recited "Old-Fashioned Girl." Bro. Davis, W. C., of North Butte Grange, gave some good advice, Bro. Rean recited a poem. Bro. Maten spoke on how to make a live Grange. Then the W. M. of Gridley Grange spoke to his Grange on the importance of being prompt on time and faithful in attendance. After the rest had their say, I took the floor and addressed the members on the good of the Order. There were present 40 Grangers from North Butte Grange and 10 from March Grange, also two from Yuba City Grange. I think it was one of the best Grange meetings I ever attended. They all tried to make it pleasant for all who were there, especially the Gridley Grangers. At four o'clock the W. M. closed the Grange in due form, and all went home better Grangers, feeling that the day was well spent and a profit to all.

Fraternally,

B. F. FRISBIE, S. Deputy.

April 19th 1891.

## Quarterly Reports.

The following Granges by numbers have paid their dues for March 31st quarter, viz.: 84, 131, 16, 35, 45, 32, 279, 295, 152, 70, 129, 11, 17, 280, 147, 10, 12, 245, 51, 230, 198, 85, 7, 161, 92, 124, 65, 207, 225, 119, 130, 3, 74, 291, 261, 253, 100, making all told 37 Granges reporting up to date. We hope to be able to report the balance soon. According to those reporting Granges, the Order is improving, and in many Granges increasing in numbers materially; and also we may say that from other directions we have encouraging news for a prosperous season for both Patrons and other farmers, and as the farmers prosper so also probably will the Order of P. of H.

PRINCIPLES, NOT PARTY POLITICS. — The Farmers' Alliance has denounced Grover Cleveland, and the way some of the Democratic papers have changed their tune is amusing. The Alliance will not support any candidate who does not endorse their views on the silver question. Your correspondent does not believe they would support a New York man at all for President, as Wall street has always demanded that he shall accept their views on finance in exchange for their support for his election. — Sutter Co. Farmer.



## FARMERS' ALLIANCE.

SUBSCRIBERS wishing fuller information of the Alliance can have their names changed to the Grange Edition of the RURAL PRESS free, much to their advantage, this department being continued in the same.

## Open Alliance at Temescal.

The Farmers' Alliance held a public meeting at Temescal on Saturday, April 18th, at which speeches setting forth the aims of the organization were made by Messrs. Buckley, Tatum and others. Rastus Kelsey, President of the Oakland Farmers' Alliance, occupied the chair. The Oakland Times says that Mr. Tatum, in his speech, condemned the national system of banking and said that the mission of the Farmers' Alliance is to bring about a better state of things in the Government. It was not wholly a political organization, but was also a sort of social club, and had for its further object the betterment of buying and selling. "Five-sevenths of the farms in the country are mortgaged," said he, "and the banking system is to blame for it. Every bit of profit is made by hard labor of farmers and mechanics and it goes into the pockets of men who already have so much they don't know what to do with it. We have been robbed, plundered and beggared by the National Bank system. The Farmers' Alliance is honest. I am 72 years old and I remember no election when liquor was not made use of by the barrel. Forty-five per cent of speeches that have been made in Congress have borne upon the breath that uttered them the fumes of liquor. Political prejudice has enervated the people. If you are for honesty and equity, then join the Farmers' Alliance. Our platform is short and simple. We want more money and we want it issued by the Government and not by National banks. Mr. Buckley also made an address in which he condemned the national banks. In his speech he said: "The poor, honest old farmer only gets to Congress by chance, but the tricky, slippery, soundlessly lawyer talks his way there." He deplored the fact that English bankers influence this country's monetary system, and said that the Alliance will bring about a better state of things.

## Prison Bag Question.

EDITORS PRESS:—A few days ago the daily papers of San Francisco contained an article from our esteemed friend Mr. Hale, Warden at San Quentin, advocating selling the bage manufactured at the prison at the market rates, and I understand the market rates mean just what the bag ring of San Francisco please to make it.

I hardly think Mr. Hale carefully considered the situation. As I understand it, the plant at San Quentin was not placed there to be run by a ring in San Francisco, but it was placed there to utilize the prisoners and compel them to earn their living by the sweat of their brow if they would not do it while free men and women).

As far back as 1881 I find the people agitating the question of placing a plant in the prison, and that the bage be manufactured and sold to farmers at cost; and, secondly, that all the men in the prison could be advantageously put to work. At that time nearly one-half were idle, while the farmers were taxed to keep them in idleness. I say the farmers were taxed for the reason that farmers pay three-fourths of the taxes of the State; the railroads do not pay taxes; the banks do not pay taxes—they have special privileges to do as they please in defiance of laws, and consequently the mechanic and day laborers have to pay the other quarter.

In the last four or five years the enterprises that were in operation in the San Quentin prison have been discontinued in accordance with the demands of labor organizations for they claimed they worked an injury to the different kinds of mechanics. That is right so far as farmers are concerned, provided mechanics stand in with farmers in the management of the prison; therefore, as there is but one article (bage) manufactured there, some gentlemen want the State to make 25 per cent profit on them at the farmers expense principally in order that a few speculators may make a larger profit out of the despised hayseed ignorant farmer, the farmers holding that while the State making nine per cent on the investment in the plant at San Quentin, and having all the prisoners employed, even nine per cent is too much profit for it comes principally out of the farmer.

It looks to me as though the advocate of higher prices for bage would cinch the farmer still more until he cannot produce any grain whatever, so that the men who would advocate the cinching of the farmer on all sides would be compelled to send to India for their flour, or to China for rice to live on. It appears to be the rule in almost all legislation and among all speculators to cinch the farmer a little more every year, so that with all his savings and starving there is barely enough left out of his yearly earnings to sublet until next year. Thanks to the Prison Directors, who have so nobly stood by the producers of this State by not catering to the wishes or sophistry of any speculator, and may they ever prove true to the trust reposed in them by the Governor of the State is the sincere wish of the farmers of California.

A. FARMER.

[We are sorry "Farmer" did not put his real name at the above article.—EDS.]



J. L. GILBERT, LECTURER F. A. & I. U.

## J. L. Gilbert, Lecturer.

Bro. Gilbert, lecturer of the F. A. and I. U. of California, and official editor of the F. A. department in the RURAL PRESS, was born in Oswego county, N. Y., in 1844. When one year of age his parents removed to Wisconsin and located on a farm near Southport (now Kenosha) where they lived for 11 years. In 1855 they removed to a farm in Done county, where they reared a family of seven children. When 18 years of age, Bro. Gilbert entered Albion Academy, in which institution of learning he received the principal part of his education. In 1864 he enlisted in the service of his country, and at the close of the civil war he was honorably discharged. In 1868 he was married to Miss Delilah Ives, and one year later they moved to the new State of Kansas. In 1870, he was elected county superintendent of public schools, which position he filled for four years with credit to himself and his party friends. In 1874, he, with his family consisting of wife and two children came to California, locating on a farm in Fresno county, where they have lived since. His family now consists of wife and six children. By economy, industry and shrewd business tact, he is able to live in good comfortable circumstances.

Bro. Gilbert's writings in the F. A. department of the RURAL PRESS, give zest to that department and appear to meet with unqualified approval from members of the Order. As State Lecturer of the F. A. and I. U. he has visited different parts of this State, and is well reported as a faithful and efficient officer.

We look upon Bro. Gilbert as an able, serviceable and progressive man.

## State Lecturer's Appointments for Solano and Yolo.

T. A. Gallup, D. S. Organizer, writes: "I have made arrangements for Bro. J. L. Gilbert to speak in the following places:

Solano.		
Name.	Day.	Date.
Dixon.....	Tuesday,	April 28.
Elmira.....	Wednesday,	April 29.
Winters.....	Thursday,	April 30.
Yolo.		
Wildwood.....	Saturday,	May 2.
Fair View.....	Monday,	May 4.

SAN BENITO COUNTY FARMERS' ALLIANCE.—On Saturday, April 11th, the Farmers' Alliance held a County Convention and feast at Willow Grove. The meeting was held in the school-house, which was more than filled. Remarks were made on the principles of the Alliance and the best means to carry out these principles. The Tres Pinos Tribune says that after the secret session, an adjournment was had to the grove, and the well-laden dinner baskets were brought forth; then followed a scene neath those lovely willows that gladdened the eyes and brought a smile to the face of the most solemn person present. After this epicurian tribute to the inner man, business was resumed, and continued till late in the day.

Various economic and business matters were deliberately and practically dismissed, which, if they can be carried out, will be of much importance to the people. There were about 300 present, as opposed to 50 at the January meeting. It was decided to hold the next convention, July 6, at Paicines.—Tres Pinos Tribune.

## Our Chip Box.

That farmer is a poor supporter of his own cause who only takes a journal that advocates the interests of the old parties through which he has been so long robbed. Would it not be a good idea for him to take at least one journal in which he can see presented his own side of the questions of the day? The professions of a reformer are best judged by his actions in supporting the cause with something more than wind.—Farm View.

Watch your enemies both in and out of the Order, and remember that one foe within is more dangerous than ten foes without.—Southern Mercury.

We have had more anxious thought on this one point than on any and all other points connected with the organization of California. Here lies our greatest danger. Many persons are now within our ranks who are not eligible and do not belong with us. They are among us for a purpose. Shall they succeed? Organizers, beware!

We learn that the farmers of Canada have asked for and received an Alliance Charter from our National Alliance, and so the "Gospel" will spread till it covers all parts of America, where the producing element still have left a sufficient degree of independence and courage to assert their rights.

The owners of the mortgaged farms in the Western States burn corn for fuel and are evicted penniless from their homes, while the poor of the cities are crying for bread. And yet there are many persons, some of whom, to their shame be it said, are themselves farmers who see no necessity for organization among the farmers.—Garden City Alliance.

MONTEREY COUNTY ALLIANCE.—The Monterey County Alliance at its meeting in Kings City decided to keep from publication the important business transacted, and only routine work, some resolutions, etc., can be given. State Organizer Geo. T. Elliott of San Benito was present, and at the open meeting Tuesday evening delivered a most eloquent and forcible speech on the work and aims of the Alliance, carrying truth and conviction to all who heard him. On Wednesday he delivered another warning address to the Alliance in regard to the great importance of keeping down and out all the false Judaists who have wormed into the Alliance ranks as spies for its enemies.

The County Alliance, which met at King City April 7th, discussed the question of building a flour-mill at San Miguel. It was decided to build a \$16,000 mill at that place at once. A committee was appointed to call on the State Board of Equalization regarding the State tax. Salinas Democrat.

## San Diego Co. F. A. and I. U.

At the regular meeting of the San Diego Co. F. A. and I. U., there were 16 sub-Alliances represented. The following resolutions were adopted:

Under the firm conviction that it is the duty of honest and law-abiding citizens to take a firm position against the corrupt and growing practice of using money and patronage to secure offices and to control legislation, and realizing that the producers of wealth, upon whom rest the burdens of taxation, are everywhere deprived of their just and equitable rights by unjust legislation enacted in the interest of capitalists, and that such unjust laws have been generally secured by the unlawful use of money; and realizing further that honest legislation, that will protect the rights and guard the interests of all citizens, is imperatively necessary for the well-being, prosperity and safety of the country, and wishing in every way possible to suppress evil and to merit and sustain an honorable reputation for our State and nation, therefore be it

Resolved, That we denounce as criminal and treasonable any effort or manifest disposition on the part of any individual, company, corporation, public official, body politic, or private citizens to solicit, give, offer, receive, deposit or unmerited patronage, for the purpose of controlling or in any way affecting the result of any election, or of influencing legislation in any way or manner.

Resolved, That we will support no man or measure until satisfied that such action is consistent with the spirit of the foregoing resolution.

Resolved, That we denounce as dishonorable and unjust the action of H. M. Streeter, Senator from the 40th Senatorial District, and believe that the honor of the district demands that he should be asked to resign.

WHEREAS, Our county officials are not conscious of the sacred trust our people have placed in them; and

Whereas, They are desirous of plunging our county deeper into debt; and

Whereas, Our State Legislature has disregarded the voice of the people in that they have wasted the people's money. They have permitted bribery, money and competition to enter their ranks; and

Whereas, Congress enacts laws to favor the rich and oppose the poor. They permit trusts, combinations and corporations to exist, contrary to the will of the people. They impose unjust taxation; and

Whereas, We have learned that the California Southern Railway Co. has raised passenger rates more than 35 per cent over the old rates from Los Angeles to various points in our county (more particularly to San Jacinto), and that said advance is working great hardship to the traveling public at a time when we can least afford the additional expense; be it therefore

Resolved, That our Secretary be requested to send a strong and vigorous protest in the name of this Order against said advance to the management of the road, and also to bring the matter before the Railroad Commissioners with a view of having the old rates re-established.

Resolved, That we denounce the present Legislature as a fraud, imposition and disgrace to the good people of the State of California, and more especially is this charge applicable to our State Senator, who has proven himself unworthy of the confidence of the people.

Resolved, That we regard the recent action of Riverside, the pride of Southern California, with a world-wide reputation, in the matter of county division, as a crime against the State and an outrage against public decency, which should be condemned by every good citizen.

Resolved, That the Government assert its rights in the matter of the Pacific railroads.

Resolved, That the vitality and life of our industries are being sapped by the great trusts and monopolies, and the Government should curtail their unwarranted and dangerous power.

Resolved, That the national currency and credit be loaned, not to a few, but to many; not to a class but to any that have good and ample security and at a rate not exceeding two per cent per annum.

Resolved, That the land grant subsidies to the different railroad corporations, and not fully earned, be forfeited and returned to the public domain and subjected to homestead entry by actual settlers only.

Resolved, That we demand that President, Vice-President and U. S. Senators be elected by a direct vote of the people.

Resolved, That we favor the exclusion of the Chinese.

WHEREAS, There are, in all our towns and cities in this country, men who annually make off the farmers large amounts of money, simply by handling the grain, hay, fruit and other products of the farmers and mechanics, and give them no return profit whatever; and

Whereas, These men are strong factors in making the prices of our products, and they never fail to make the prices as low as possible, thereby causing the farmers to be in a continual press; therefore be it

Resolved, That we recommend and earnestly urge that the sub-Alliances work together, where they are near enough to each other, to co-operate and build for themselves at the most convenient locations, warehouses in which to store grain and other products for the better holding for better prices.





## Brilliant.

But if thou do thy best,  
Without remission, without rest,  
And invite the sunbeam,  
And abhor to feign or seem  
Even to those who thee should love  
And thy behavior approve,  
If thou go in thine own likeness—  
Be it health or be it sickness—  
If thou go as thy father's son,  
If thou wear no mask or lie,  
Dealing purely and nakedly—

—Emerson.

The years have come and gone,  
And brought me many a pleasure,  
And many a gift and gain  
From near and from afar;  
And dear work gladly done,  
And dear love without measure,  
And sunshine after rain,  
And in the night a star.

The years have come and gone,  
And brought me share of sorrow;  
Yet I shall sing to ease my pain  
For the hours I must stay;  
They are passing one by one,  
And I wait with hope the morrow,  
But indeed I am not fain  
Of a long, long day.

—Katherine Tynan.

"Give me a kiss, that going home  
My footsteps fall on air;  
Give me the red-tipped mountain rose  
That nestles in your hair."  
Her cheek upturned took the flower's hue  
At the touch of her lover's lips;  
The rose unbound, as it swept her face,  
Caught the blush on its petals' tips.

"Give me a kiss, I am going home;  
The links in my life's chain break.  
A kiss and a flower, my love, from you  
Will the pain from my parting take."  
Her lover bent low, as an angel light  
Came into her closing eyes.  
A kiss—the rose at her cheek he placed,  
But its petals, alas, were white.

—Anon.

## Her Dark Days.

[Written for the RURAL PRESS by HELEN M. JOHNSON.]

It was a bright, pleasant room. Its large windows admitted floods of light and sunshine (that is, they did when the sun was shining). It was evening now, and the corners were lost in shadow and you could just see by one of the windows a woman's form sitting in an attitude of deep depression, gazing with wide-open eyes into the gathering darkness. On the street people hurried hither and thither. The car-bells clanged and carriages rattled over the pavement. The street lamps were lighted, one by one, and seemed to twinkle merrily over the ever-varying scene. Still she sat motionless, a picture of woe, the room now shrouded in the settled darkness of night. She leaned her head on her hands and sobbed bitterly. She had worked so cruelly hard for the last four days, had hardly taken time to eat or sleep, but she had been buoyed up with the hope that on this night she would have the rent for the rough old landlord, who was sure to come, and who would bluster with rage when she would have to tell him that she could not get the money for a day or two longer, and she felt so weak and all done out and longed so for something appetizing to eat and not a cent to get anything. How could rich people be so cruelly thoughtless.

Mrs. Golden, chatting with her maid over her beautiful ball dress (the work of poor Miss Sterling's tired fingers), never gave even a passing thought to the fact that she had not paid for the work. In the hurry of going for the final trying on she had forgotten her purse; but, of course, Miss Sterling would not mind and she would send the money to-morrow or next day (if she could think of it) and she would speak a good word for her to Mrs. Riche and Mrs. Pinchbeck, for the dress was just perfect. Miss Gabb never made her one she liked so well and charged her almost double the price; so she felt very kindly toward Miss Sterling, and in a very complimentary frame of mind altogether. If any one had told her that even then Miss Sterling was sitting with throbbing brow and tear-stained cheeks as the result of her carelessness, she would have been horrified and sent her maid immediately with the money.

But those who have plenty, so often fail to remember that the weary ones who toil for every dollar they get need it (often very badly) when it is earned. So Mrs. Golden went to the ball with a light, happy heart, while Alice Sterling hurried down a back street till she came to a dingy shop with three glistening halls over the door.

There was no alternative now; she could not face the landlord again; she would have to pawn her only valuable, a tiny gold locket set with precious stones, containing her dead mother's picture. She had, of course, taken the picture out, but it still seemed a sacrilege

to let the receptacle that had held that dear, pictured face go in such a place, even for a day. She had never been driven to such a strait before, but being ill for three months had exhausted her little savings, and what she had been able to do, before Mrs. Golden's dress, had only sufficed for daily expenses. The old pawnbroker eyed her searchingly when she handed him the locket, and a fear seized her lest he should think she had gotten it dishonestly; but when she named the modest sum she wished to get, he handed her the money and her ticket promptly. Her cheeks tingled all the way home at this new mortification she was made to undergo (by the thoughtlessness of a rich woman), and she vowed bitterly that she would be a dressmaker no longer.

There were so few things that she had felt she could do well when she had been left to struggle with the world, but in her happy, care-free days, she had always delighted in helping to make and design her own pretty gowns, and they were always so much admired that she felt she would give satisfaction as a dressmaker; but constant work had worn her down till she had a sick spell, and she had so often to wait for her pay she was disheartened. But this night was the worst of all; she could stand it no longer. She had just removed her hat and shawl, when she heard the landlord coming. She placed the rent on the table where she knew his eagle eye would see it. The first thing, for she dreaded the rude manner in which he would be likely to express himself if he thought she was not prepared for his coming. He knocked imperatively. The moment she opened the door, she saw his eye overtly take in the money, and his burly pomposity melted into suave affability, such was the pacifying effect of the sight of money on his rude nature.

He inquired with much interest after her health, and hoped she was getting along better. She replied by handing him the money, which he took with a printed receipt from his pocket, and with much effort and flourishing marked the date in stiff, awkward figures, and with a jerky how, which he evidently considered the height of gentility, said good evening and departed.

A great sigh of relief escaped her when the door closed on his forbidding presence, and she thanked God, that by any means, she had been able to have the money, but her heart was very sore, and her mind was busy planning what more she would make that she might not be caught in such a position again. She had always paid her rent in advance for the year and a half she had been there, until since her sickness, and this month three weeks of the month were gone by, and she resolved before the other week passed she would give up the rooms, and find something else to do; surely her pride and self-respect could not suffer more at any kind of work than she endured to-night. She would advertise for a situation at once. It would have to be to care for, or instruct young children, or assist in light housework; though her education had not been neglected and she was quite a good musician, she did not feel capable of teaching any but small children, but she could bake cake, and make the daintiest desserts, and she smiled sadly as she thought of Bridget's oft repeated comment.

"It's really wonderful, Miss, the luck you has in bakin'."

Little she dreamed in those happy days that she would be the lonely, friendless creature she was this night. Her father dead; his fortune all swept away in unlucky investments and she earning her bread toiling for others. She had been very brave at first, but it seemed as if her strength were failing, and scalding tears again coursed down her cheeks; but she resolutely wiped them away and sat down to write her advertisement. She would take it to the office in the morning, which would be Saturday, so it would appear in the paper on Sunday.

Monday she started out with a strange mixture of hope and dread in her bosom, for this was a new experience. She received three answers to her advertisement. The first she read was poorly written, the spelling worse, and from a locality that precluded the possibility of its being suitable. The second one was from the aristocratic portion of the city, in a clear, masculine hand and very concise. The third pleased her most. It was a neat little note in a lady's hand, and she felt that the writer must be sweet and gentle.

She would answer both of these. She took a car and soon found herself at the gate of an imposing mansion. A stout, angry-looking girl opened the door when she rang the bell, and ushered her into the parlor. It was very dusky and a death-like silence reigned as her eyes became accustomed to the darkened room. She noticed that everything was very costly, but displayed an utter absence of taste, and the incongruity of some of the appointments was really ludicrous.

Presently the portiere of the hall door was thrust aside, and a large woman in rustling silk entered. "Dear me," she exclaimed seating herself quite out of breath. "I suppose you are the person that advertised for a place. It's so hard to get good servants. I've just turned my kitchen girl off. I told her I liked to have enough to eat, but I did not want to cook for the swill-barrel, but you can't look after 'em but they fly off in a passion, and you never know whether you have 'em by the head or the heels." I told Mr. W. to answer your advertisement (my second girl left yesterday in a tiff.) I am getting my daughter ready to go back to boarding school and if you can help the dressmaker, and do a little generally

you can come. I must go now to the employment office to get another kitchen girl. I suppose I shall have to cook dinner myself to-day," (with an expression of deep disgust.) She did not seem to expect any replies, and shaking out her rustling skirts she was gone.

Alice Sterling rose too opened the door and passed out into the bright sunshine, and felt as if she had had the nightmare. She looked at her remaining note. There was one chance left, she walked many blocks and was very tired when she reached the number, but she drew a breath of hopefulness when she saw the house, a pretty cottage surrounded by a green lawn. The hall door stood open, and a sunny-faced child met her on the porch. She looked at Alice Sterling with lovely blue eyes, and in a sweet, childish voice said "Mamma is right here come in please." And now I will give my readers only a synopsis of the rest of my story. Here Alice Sterling found a quiet happy home. The kind, gentle lady who greeted her won her heart in a moment and a few months later when a dark-eyed, handsome young lawyer, (who had achieved unwonted fame in his chosen profession) came to visit his sister during his vacation, her heart was won a second time, and ere many months went round wedding bells pealed forth a merry chime for a happy bride whose "dark days" had merged into days of sunshine and gladness.

Calistoga.

## The Blessed Little Ones.

[Written for the RURAL PRESS by MARIE.]

No one but the childless wife can know the longing she has for a hairn all her own. How she misses the caress of baby hands and the little clinging arms and tender kisses of baby lips! As the years go by and no child appears to bless the home, no matter how happy a one it is, she knows there is something wanting. When she gazes on a happy mother with her little ones with all the care and trouble they are, still making home so bright, then the hunger in her heart is greater, and she only can tell you how she longs for the caress of baby arms. She sees in the dim future the childless old age, when other interests are wanting—no son or daughter with little ones around the hearthstone to recall happy by-gone years. Children may be adopted, but there must always be a sad remembrance that she has missed something of sweet motherhood. Of course there is more freedom without children, and I often think that God does not give children to all that they may devote time and talents to other things for the benefit of mankind, or that they may look after some of the many little motherless beings in the world. On the other hand, all children are not blessings, and it would be far harder to see a beloved child turn out badly than to have had none; but the question is: Cannot all fathers and mothers so bring up their children that there will be no black sheep, or does God take these strings out of our hands for some good we cannot understand or know?

## Chaff.

THE bloom that is on the rye is all right. It is the bloom that comes on the nose that is all wrong.

"Don't you know, prisoner, that it is very wrong to steal a pig?" "I do now your Honor. They make such a row."

A BEGOLICIST claims to have discovered an insect that can count. It is not strange. Many insects multiply very rapidly.

"I AM accused of possessing talent," said a conceited man. "If you are over tried you'll be acquitted," replied one that knew him.

KISSES are like an actress's diamonds. The oftener they are stolen the better their owners' are pleased.

IF a man could live a thousand years he would probably spend the last fifty fretting over what he might have done in the previous wasted time.

DE MACUS—"I hear poor Whyte is lying at the point of death." St. Agedore—"Lying, eh? Well, well; the ruling passion strong in death, you know."

THE best method of book-keeping—don't lend them to anybody.

"CAN you lend me a five, Jack?"

"I can; here it is."

"I can never repay your kindness."

"Never mind; repay the five and let the kindness go."

THEIR LEADING CHARACTERISTICS.—If one asks an Englishman he replies promptly, but seriously, like a person who means business. The Scotchman will deliberate or answer warmly, or meet one with a cross question. But the Irishman will make a joke immediately. Three wags dining at a restaurant decided to put these national characteristics to the test. The English waiter was called and asked—"John, what would you take to sit for a night outside St. Paul's?" John answered quickly—"A guinea, sir." "Good! Now find us a Scotchman." John shortly returned with a Caledonian of his acquaintance, and the question was repeated—"Well, Sandy, and what would you take to sit all night outside St. Paul's?" Sandy after a deliberate pause and in a deliberate way inquired—"What would ye gie?" A porter from the Emerald Isle was similarly summoned, and the same inquiry put—"Now, Paddy, what would you take to sit all night outside St. Paul's?" "Faith, then, if ye want to know, I'd take a bad cowld."

## On Tramps.

We publish by request of Tulare Grange the following extract from an original paper read at a late meeting:

Remember, the Good Book teaches that we are to be as wise as serpents and harmless as doves. Again it says we are to be chastened with the rod. Therefore the question requires a great deal of consideration.

I think I hear some one say: "If she had to contend with what we have to contend with, she would be a little more severe on them." Not so. I think I know about as much of being hotholder with tramps as any of you. Before I came to this county I lived in San Joaquin county on the French Camp road. It seemed to be a favorite route for tramps. At least I thought so, for there would be as many as ten come to the door in one day. They were very impudent also. When they got what they wanted to eat, they would go in the garden and lie down under the trees. I used to go to the field with my husband and ride on the plow most all day in preference to staying at home with so much tramp company. You say, do not feed them. This I cannot advocate, as I must not preach what I do not practice.

I do not think our officers should be paid as they are for the arrest of tramps. Let them be paid a salary of so much per month for their services, and the attorneys he paid in like manner to try these cases. This would put a stop to so many needless and unwarranted arrests.

In a great many cases the officer is worse than the man he arrests. Sorry to say this; but if he arrest an undeserving man and incur an expense for us to pay, is this not stealing?

About a year and a half ago, there were three young men who started from Kansas and traveled through Texas and different States in search of a place which might suit them. They finally concluded to stop at Tulare as their means were nearly exhausted.

They arrived in the evening and took lodging at Hull's. They arose early the next morning and took a walk down to the Round House. When on their way back, one of our noted officers walked up to them to arrest them. The young men said all that saved them was that one had three dollars, the other two had a little less.

One of these young men has been working for my husband for about fifteen months, and in that time he laid up three hundred and fifty dollars. This ought to be sufficient proof of what he was.

Do you suppose that officer would have attempted to arrest these men if he were not paid so much per head? I say, do away with such laws, that tempt men to do such acts for the filthy lucre. Do I think that vagrants ought to be arrested? I do; but not to be locked up in a filthy cell to stay their time out there. Make them earn their way. Put them to work. There can be work provided for them, lots of it, if men just think so. In this way, those who are not deserving will soon prove themselves.

I have no doubt there are those who are sick arrested for vagrancy. If so, this would soon prove it; and if such be the case, send them to the hospital, where they will be cared for. Another thing I would call your attention to is the idea of paying our sheriff fifty-five cents a day per head for feeding criminals. It is an outrage.

Must our criminals live in luxury, have the first cut of the steak? I say no. Let them repent of their crime in sackcloth and ashes. If they were furnished meat once a day, bread and butter I was going to say, but I shall say bread and coffee, the rest of the time, I think this would be efficient.

I will venture to say, there is many a poor woman who washes all day, from one week's end to the other, in order to keep soul and body together, who is glad to get this, and she pays taxes on her little home to help pay bills that are incurred in this way. I really think liquor license is the greatest evil of all and is the cause of most of the vagrancy.

Therefore, wives, mothers, and sisters, let us be true to our post. We have a great work in this cause.

Though we do not go to the polls to cast our vote, we can cast it in our homes, Sabbath schools, in fact where ever we go we can leave an influence.

"Train a child in the way he should go, and when he is old he will not depart from it."

Let us endeavor to make our homes more pleasant, and give our children more amusement at home.

I do not think that God intended for woman to slave every moment away. We should read to our children, play with them, sing for them and in fact instead of mother being the slave, she should be the entertainer of the family.

I think many a child might have been saved from the disgrace of vagrancy, if the mother had paid a little more attention to these so-called, small home affairs.

Sisters, let us endeavor to do all in our power for the advancement of education, temperance, religion, and in fact everything that will elevate the principles of mankind. We have a great and noble work. Let us strive to do it bravely.

MRS. M. PREMO.

Tulare City, April 4, 1891.

SOME people get through life in much the same way as a chimneysweep gets through a crowd.



## What To Do with that Boy.

The vital difference in children of the same household is not sufficiently considered by theorists of maternal duty. Every mother of more than one child has had this conclusion forced upon her. The plans, the discipline, that approve themselves in one case fail wholly in another, and this is doubtless one reason why many admirable and conscientious parents face some disastrous and overwhelming disappointments in their children, and the boy the mother would die for, slips away from her influence and regards her advice, her commands, her pleadings, with indifference.

The mother's duties in a large family are most complicated; our very imperfect domestic service overtaxes every hour. Elder children have one set of needs, the youngest still another, while all the way between questions rise, demanding time, thought and care for their decision; and the differing temperaments are more exacting than the differing ages. It is a wise mother indeed, and a fortunate one, who can avoid conflicts, who can be the tender, sympathetic friend to the daughter just facing womanhood and to the noisy, romping boy—the life, yet the terror, of the house. She tries to restrain the one, to make the other more gentle and more patient; but mademoiselle thinks that mother *might* make Tom show some regard to the ordinary amenities of life, and Tom is sure that Nell's finery and pretty notions are not worth the sacrifice of one moment of his time or his amusements.

She reads—ah me! she knows without reading—that you must make a boy regard his home as the pleasantest place on earth; but when his tastes and habits interfere with the peace and comfort of every member of the household, how, in justice to them, can she avoid restrictions and reproofs that chafe and annoy him? Prof. Drummond says that good breeding is simply love in relation to society. "Love," he says, "cannot behave itself unseemly." Alas, how very far we are all from it, how wholly foreign is its atmosphere from the average boy's wishes or comprehension!

But the mother, the true mother, tries hard to face this difficult problem. She keeps his *Poultry Review* or *Baseball Notes* above the *Atlantic Monthly*, or the *North American*, or the *Young Ladies' Journal*, that they may arrest his eye when he comes in, though Nell thinks them "so out of taste." And when they have detained him a brief space, and he leaves them on the floor in departing, she finds an unobserved moment to fold and replace them. She plays games and tells stories, only to find that she has but tidied over an hour here and there, while the restless nature ever craves something different, from the familiar routine. Chiefly, this craving is for the companionship of boys of his own age. And now I come to my practical thought. How may he, with the least danger, have that companionship?

Nearly always a group of neighboring boys will have some tie that unites them—a baseball nine perhaps, and in summer their active exercise and merry shouts reassure her who carries this ceaseless question in her heart.

It is the silence and the darkness that hold the seeds of doubt, of danger. Now let the mothers of these boys (they may not have much else in common, but they can make common cause for this purpose), let these plan that each one will, on a given evening in every week or fortnight, welcome all the group of boys to her home. Let her plan on that evening to be at home, and to avoid any company for the other members of the family that can interfere with the boys' good time.

Let them have a room to themselves, bright and warm, that they may feel at home, plenty of games and pictures, and some very simple evening treat that cannot be burdensome—of nuts, popcorn, plain cake, fruit. Let her watch at a distance, and be ready to help change the atmosphere if discord enters or the interest flags. Now this little bit of planning makes all the difference in the world; each mother acts as a sort of committee for the others; the absence of one boy, if he is tempted to slip away, is noticed and reported. Being allowed this diversion on some evenings of each week, the others should be more easily controlled or endured.

Some mothers say: "My boy can always bring his friends home, and I would rather have them here;" but the boys like change; each one wants to play the host, and the games and books have more variety in this plan.

Above all, the fixed evening prevents Tom from bursting upon the tea-table with: "Mother, the boys are coming up to-night, and I want all those old helmets and uniforms out of the attic," on the very evening when Nell's new and fastidious acquaintances are coming to practice duets with her, or the "master of the house" has an important business engagement to the parlor; and the poor mother has, perhaps, reached the last point of neuralgia and endurance which must come to us all sometimes, and has to say: "Not to-night, Tom, it is impossible; you must go and tell them not to come."

So Tom goes off, declaring that he "never can have any fun."

Let him see that he shall have his share of good times of the kind he likes, but that other members of the household have their rights; and surely he will value such consideration and try to be reasonable.

Then the special guest or occasion, when

needed restraint is irksome and uncongenial to him, can come on an evening when he is safe and happy elsewhere. This only touches one side of a many-sided subject; but it seems to me helpful, and so I give it to you.—A. C. P., in *Country Gentleman*.

## YOUNG FOLKS' COLUMN.

## Little Pat.

(Written for the RURAL PRESS by LUPA.)

His father had a place in one of the paper mills, so, of course, little Pat and his mother came to live in the village. Never mind the name of this particular "collection of houses and inhabitants," for it is one of many such in New England where the water of the brook which runs sawmill, gristmill, chairshop and paper-mills waltzes over and around the stones in its way between the dams, singing of the cranberry marsh it has left behind, and of the big, three-mile wide pond at the foot of the mountain. It was a real village and the little Irish boy moved into it.

We all "felt above foreigners," why, I cannot tell, for the grandfathers and great grandfathers of most of us were certainly foreign, and we also felt above and rather afraid of the real native, the Indian, though few of us had ever seen him. I think we considered ourselves the true owners of that "rock-bound coast." Not that we girls ever expected to have anything of our very own, but we might shine in second-hand glory. We had fathers and brothers, and expected to have husbands, so we could play moon to their sun. Yes, of course, we meant to have husbands. Didn't we coax some one to name the seeds of every apple we ate? Didn't we carefully throw its peeling over our shoulder, and trace in its coils the letter we wanted to find, even slyly pushing it into place if it was not quite correct? Didn't we begin at the neck button of our dresses, and label them "rich man, poor man, beggar man, thief," and didn't we feel proud when the last was rich man, with varying preferences as to whether it should be "lawyer, doctor, or merchant-chief"? Of course! but he must certainly not be a foreigner, especially an Irishman or "Paddy," as he was generally called.

So, on that summer morning when little Pat first came to our school, he started on a thorny road to knowledge. He had bright, dark eyes and rosy cheeks, but his hair was sheared close to his little round head, according to a style not so fashionable then as it is now. At that time men and boys had their locks cut square across from ear to ear, and left thick and bushy, if that was natural; if they were soft and the brain beneath rather soft also, they were trained to roll under at the ends, and the rest was oiled flat and smooth. Perhaps you can imagine how odd he looked in contrast to the rest, but we grew accustomed to that and tired of teasing him after a time, for he was generally good natured, quick with his answers, quick with his lessons, and active at play. We were almost beginning to respect him, when one Monday morning he came shyly into the schoolroom just as the bell was ringing and slid into his seat. Such a fusillade of half-suppressed giggles as were smothered in handkerchiefs and hid under desks just then is seldom heard. He wore, instead of his usual trousers and jacket, a girl's calico dress that reached halfway down his coarse boot legs, and the whole effect, from the cropped head down the limp, unstarched skirt to the red ends of the ten toes just inside the ragged boots, like waiting peas in opening pods, was so comical that even the teacher could not keep serious for the first minute.

At recess the cruel sport began. I can see now how desperately he pulled to get away as his tormentors held to the skirt, pretending to drive him, while the rest stood around laughing. The thin cloth was torn in the struggle, but that was nothing when there was fun on hand and few cared for the angry tears that scarcely cooled the hot face.

When we took our places again, little Pat was not with us. At noon we saw him alone by the brook below the last dam. Farther down, where the water was still deep and swift but not as turbulent, two narrow boards meeting on a flat rock in the middle of the stream served for a bridge. It was just dangerous enough to be delightful for us to run back and forth on these boards, daring the more timid ones to follow.

Mary Gray had brought her three-year-old sister Bessie as a visitor that day, and we almost quarreled for a chance to speak first and oftenest to the little beauty. We were excitedly watching Mary's victorious landing in the enemy's country in spite of Janet Woods' teetering on the other end of the board (for the fate of imaginary armies and nations was often decided at this Rubicon), when Bessie skipped from us, calling jocosely, "Oh, my Pat!" and was on the middle of the bridge before we knew it. Then Mary turned, saw her, and screamed, "Go back, Bessie!"

The dear, swaying little fairy stopped, looked around, staggered, and then one blue slippered foot went down toward the water. There was a flash of white skirts and fluttering of blue ribbons, then the brook shivered and went waltzing on its way as before.

We shouted, wrung our hands, ran against

each other trying to do something without knowing what, crowded on the slender plank till it dipped, and some started to wade out. She had come up once below the bridge, fluttered like a wounded white bird and gone down again, just as another skirt—a limp, calico one—spread out like a shadow on the water and in a moment was gone before we thought what it meant.

"There she is coming up again," cried Susie May, "down by that flat rock. Something is pushing her up on the rock. Look! look! run!"

But the big boys had heard our screams and were there first.

"O dear! O dear! Is she dead?" and Mary's sobs started anew at sight of the white face and dripping curls.

"No," answered Jim Nelson who held her, "but she will be if we don't hurry. I'll run with her to Pat Murphy's. That's the nearest place."

"Where is Pat? How came Bessie on that rock? She never could have put herself there; she didn't know anything then," demanded big Tom Green who had all the time been Pat's friend.

Some of us stopped following Jim to answer "I don't know" to both questions, and we looked at each other with a new horror growing very fast in our minds.

"O girls," said Susie, "don't you know I thought something was pushing her up?"

Then we remembered the limp, calico skirt that had spread out like a shadow on the water and in a moment was gone. Three bounds of Tom Green's long legs took him down the bank and out to the rock, but nothing was in sight and the brook kept all it knew to itself. So Tom stooped till his shaggy head went out of sight. In a few seconds it came up, but dodging and swaying as if he was pulling at something; then he stood straight with a bundle in his arms—a bundle wrapped in—yes, in that limp, calico skirt, now limper and more clinging than before, and, oh, how frightened we were! It was little Pat, looking more like death than had fairy Bessie.

At that moment we were pushed right and left as Mrs. Murphy fairly flew to the spot, and we never thought of laughing or sneering when she snatched him from Tom, sobbing:

"Och! me b'y, me b'y! that iver I should live till this day! Sure and wasn't it enough that Norah must be thrown into the dirty old salt water, an' me a-longin' for the blissed turf of old Ireland to lay her in, an' no praste nor howly candles at all, at all? An' now me b'y, me only wan, that was named for the blissed saint, must go by the water, too, an' with that same little dress on that she wore last! If niver I had put it on ye, Pat, my little Pat! But he said the scholars tazed him for the jacket and throwers that were getting ragged, an' I said, 'Shtay at home till I wash an' mind them,' an' thin he said, 'No, I should miss me lesson' (he was that set to learn, was Pat), an' thin I said, 'There's yer sister Norah's dress. D'ye mind wearin' that the day?' an' he said, 'No,' so I put it on him. O Howly Virgin! an' what will his father say?"

She stopped, suddenly faced us with eyes glaring like a wild animal's screaming: "How came he in there?"

"I don't know," answered one frightened voice.

"I think he was trying to help Bessie," said another.

"I guess he reached too far over the bridge, and fell in, and the water carried him along."

"Didn't ye see him after that?"

"No."

"His dress was caught on a stick on the bottom so he couldn't get loose," said Tom, whose lips were quivering so he could scarcely speak.

"An' ye all forgot to look fur him! May the saints forgive ye!"

It was not the cold that made Tom tremble so, though he called it that and said:

"Come, let's go and see if we can warm him;" but the mother answered mournfully:

"It's no use. He's dead intirely."

Baby Bessie had been wiser than we, and had loved him before it was too late.

At the funeral, the dear old minister said so that we all could hear:

"Greater love hath no man than this: that a man lay down his life for his friends."

## A Stanley Episode.

EDITORS PRESS:—On my way home from San Jose yesterday, I had the pleasure of seeing Mr. and Mrs. Henry M. Stanley. On arriving at San Mateo, two minutes were very pleasantly ha by our townspeople as well as by scholars from our different schools. Prominent in them were about 40 orphan children, boys with short-cut hair in tidy, wholesome snits of gray. Standing on the platform of their coach, Mr. and Mrs. Stanley viewed all with kindly expression, and particularly those little ones without parents. Mrs. Stanley gave them tokens in pictures as they presented a mammoth package of full-blown flowers. Three rousing cheers followed as our left.

I. T. HOYT.

MAMMA—"I hope my little boy while dining with friends remembered what I told him about not taking cake the second time?" Little boy—Yes, mamma, I remembered, and took two pieces the first time."

THE Chinese carry devils with them wherever they go. They are great imp-porters.

## GOOD HEALTH.

## The Sugary Watermelon.

The following, from an old exchange, will be read with interest in view of the approaching season for indulgence in melons and fruit:—It is delightful to have science spare here and there a tree of loved and old fancy. There has been such a sweeping and mowing down of human comforts that we once at least esteemed as such, in regard to eating and sleeping and the general manner of living, that it has seemed at times that the sanitarians and the scientists were determined to convert us into the veriest machines, and leave us nothing of the sweet and old-time indulgences that in the innocence of youth and the maturity of age we thought to be harmless.

For instance, we have been told that the watermelon is "aquish" that it contains but a very small percentage of nutritive elements—as if man must indulge in nothing except with an eye single to the hrawn of his composition; that the melon is a seed and home of malaria, that convenient scapegoat for every ill not otherwise defined; that, in short, the less of the rich, ripe and toothsome melon we eat the better for us. Such has been the gospel of science, or at least of preaching by a grand army of advisers, that the small boy has heroically defied and grown up to stout manhood "just the same."

Now, after many years, the scientists settle down to the doctrine that the watermelon is not dangerous to health, provided always we wrestle with this filling and luscious fruit of the field when it is fully ripe. That, indeed, its action upon the secretive organs is rather beneficial than otherwise, unless our indulgence degenerates into the glut of intemperance; that more of melon and less of meat in the summer season, is decidedly beneficial. As for the age they now tell us that there is no more of that shaking ill in the dripping sugary melon than in any other fruit, and there is none in any if it is taken at the right time and in due moderation. Unfortunately we do not know who to thank for this generous advice, and this overthrow of a hugaboo that has occasioned many a boy exquisite tortures because of enforced abstinence. But as an integral part of the grand army of melon lovers science has our thanks."

HAS EVERY DISEASE ITS REMEDY?—The theory that for every disease there is a remedy, if we could only find it, is as pleasing as it is plausible. It labors under the doubt-inspiring fact, however, that it is of a *priori* origin. So many speculative hypotheses of this kind have been scattered to the winds by the labors of the inductionists that one is some times tempted to take up the unphilosophical position that whatever rests solely upon an *a priori* basis must necessarily be false. That would of course be absurd. But is it the case, as matter of fact, that for every disease there is a remedy, if it could only be found. Before answering this question we must turn the ambiguous word "remedy" into something more precise. If by "remedy" is meant "cure," then an exceedingly strong position may be taken against the hypothesis and the position is this—that up to the present time experience has not furnished us with a single remedy which can properly be called a "specific cure" for a "specific disease." Now, this is clearly a fundamental and also a staggering fact for those who believe in the doctrine that a remedy for every disease under the sun will be found if only we look carefully enough for it. If the world is not very old, neither is it very young; and if past experience has not furnished us with one single substance which definitely and certainly cures any one certain disease, there is a strong presumption that such substances will be as difficult to find in the future as they have been in the past.—*London Hospital*.

REST AS A MEDICINE.—A physician, writing of rest as a medicament, recommends a short nap in the middle of the day for those who can take it, as a beneficial addition to the night's sleep. It divides the working time, gives the nervous system a fresh hold on life, and enables one to do more than make up for the time so occupied. A caution is given against the indulgence in too long a sleep at such a time, under a penalty of disagreeable relaxation. There has been much discussion regarding the after-dinner nap, many believing it to be injurious, but it is, nevertheless, natural and wholesome.

A CAUSE OF PNEUMONIA.—Dr. F. W. Norton reports two cases of pneumonia which seem to have a traumatic origin. A boy of eleven was forcibly struck on the left side of the chest with a hatchet. Cough and dyspnea came on in four hours, and the physical signs of pleuropneumonia at the base of both lungs later. The second case was a man of 22 who strained his right side by trying to prevent the fall of a sack of malt. He developed all the signs of pneumonia and died, both lungs being in a state of red hepatization.—*Brit. Med. Jour.*

LENGTH OF DAYS.—The longest day of the year at New York is 15 hours, at London 16½, at Hamburg 17, at Stockholm 18½, at St. Petersburg 19, at Tornea, Finland, 22, at Spitzbergen three and one-half months.



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Pumping and Harvesting Machinery—Byron Jackson.  
Harvesting Machinery—Deere Implement Co.  
Spading Harrows—H. C. Shaw Plow Works, Stockton.  
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Dictionaries—G. & C. Merriam & Co., Springfield, Mass.  
Cattle—P. H. Murphy, Perkins.  
The Advocate—Advocate Pub. Co., Topeka, Kan.  
Commission Merchants—Allison, Gray & Co.

See Advertising Columns.

## The Week.

The elements seem to be settling down for a run of fine spring weather. The atmospheric conditions have changed so that expansion is invited. The face of man relaxes into smiles of comfort as the balmy air and genial sunshine invite and plant and tree respond to warmth and moisture in delightful ways. May Day will come upon us possessed of full resources for its celebration. The backwardness of the season hitherto makes the revival more noticeable. The roses in the bay region are just upon their grandest unfolding and the

Show of the State Floral Society which will open at the Academy of Sciences on May 6th will be the occasion for the gathering of as fine a display of roses as the State has ever seen. Every rose grower should contribute to this display, compete for its awards, and enjoy its manifold beauties and lessons, and all who love flowers should visit the exhibition.

Crop prospects, as a rule, are as good as could be asked, though there will be deficiencies here and there, as has been previously noticed. The aggregate result to the State in returns for surplus products sold bids fair to be greater than California has ever before secured in a single year. Both weights and prices are now promising.

## General Farming in California.

We desire to have several hundred readers of the RURAL submit to us at once brief statements of their experience in general farming in California. It matters not whether this experience be on a small or large scale; we wish to have an outline of methods and results. The chief questions are: (1) How much land have you farmed? (2) What have you produced, and (3) What have you accomplished in paying for the land, building up a home and securing life's comforts?

We ask for hundreds of brief statements covering these points, because we see that in the reports of a recent meeting of the State Board of Trade a prominent citizen is credited with saying: "It is not an advantageous step for an average man to come here to do general farming." We do not give the name of the speaker, because the report of the remark may do him injustice; but the idea is one we wish to combat and to meet with an overwhelming array of facts and experiences such as our readers can furnish us.

We wish to combat this idea that general farming does not favor California, because we see it constantly cropping out in city agricultural circles, and an impression is thereby produced which does our State injustice. Take notice that we do not claim that a man should come to California without some capital to invest and to maintain himself for a time. Thousands have come to this State empty handed and have won competence and affluence, but we never advise a man to do it. If he desires the struggle, let him take it up himself and rise or fall upon his own responsibility.

But the impression which we would combat is, that new citizens are not desirable in California, unless they bring thousands enough to purchase and plant fruit land and maintain themselves until the trees or vines come into bearing. Those who come thus endowed are desirable and there is small risk to their undertaking if they have ordinary gumption in buying and improving lands. There are, however, thousands who have come to California without money enough to support themselves for so long a time without income, and have also succeeded. It is the experience of such readers of the RURAL that we wish to draw out.

The general question, then, is this: Does the general agricultural principle that the safest course is to produce what will support the family and secure ready money by sale of small surplus products apply to California, or must we install a new principle, viz., buy everything needed for maintenance and take the chances of profit from a single crop a few years hence.

If we admit that the old safety principle does not hold here, then we must say to the world, there is no use of your coming here to buy small farms with the view of equipping them with a few horses, cows, sheep and poultry, and with the intention of producing the food these animals need, while you may be growing vines and trees upon another portion of the farm. There is no chance that you can support your family wants by selling now and then a young horse, a cow, a few lambs or pigs, a lot of dairy produce, fowls and eggs. This old-fashioned, thrifty style of farming, by which people build up homes in other States and in other lands, is not practicable in California. We don't want people who think they can advance that way. "It is not an advantageous step for an average man to come here to do general farming."

This is the doctrine to which we most emphatically demur. Not only is it true that California offers a chance for most satisfactory

advancement upon small-scale general farming, providing a man has means enough to make a fair start; but we really believe no part of the world offers such notable advantages for such work. Where can so much be gained of any crop from an acre of land in a region of sufficient rainfall, or by irrigation from well or ditch? If this introductory query can be answered for California, then the whole question goes with it. But it may be said, what is the use of great production if the crop can't be sold? The answer is, that the general farmer has no great amount of any single crop to sell, and he has all around him the means for converting his crops into different forms, some of which are sure to find a local market, and to secure the limited amount of ready money, which is needed by a farmer who is operating upon a self-supplying policy. Of course, this kind of farming cannot be followed on dry land, but it is possible now throughout a great area of the State, and every new well or new irrigation ditch increases the area available for it. It is true, perhaps, that it does not furnish so much work for the railroads, as does a style of farming in which everything produced must be hauled out of the region and everything consumed must be hauled in; but we have supposed that the traffic in a thickly settled region of small farms had always proved satisfactory. It is not necessary to expand the matter further at this time. We have said enough to show the point we desire to make for or against California as a place for general or mixed farming, and to this end we invite short statements of local experience.

## The President's Visit.

As we write on Wednesday evening the President is in Los Angeles. His westward journey has been an ovation throughout. The Presidential party entered the State of California at Fort Yuma at 4:50 o'clock this morning and was presented with a large quantity of beautiful flowers and fruits. The entire party was asleep at the time, so did not see the presentation committee. When the Presidential party reached Indio at 8:15 o'clock, it was received by a large and influential delegation, headed by Governor Markham, who made the following address of welcome:

**Mr. President:** As the Governor of California, and in her name and on behalf of her people, I greet you on the very threshold of her territory, and bid you a most hearty welcome to our State. This I do on behalf of all her people irrespective of party affiliations, and, sir, as a proof of this, I shall soon take pleasure in introducing to you distinguished representatives of both political parties, who are with me and who heartily join in welcoming you as the Executive of our great nation.

Let me assure you that we fully appreciate the great effort you have been obliged to make in order to visit our coast; but I am confident that you and your party will feel repaid when you see the wonderful features so peculiar to our State, and of which every Californian is so justly proud, and of which so little is known or correctly understood by the people of the great East.

California, Mr. President, is an Empire of itself, 700 miles in length and 300 miles in width, thus affording every gradation of climate and almost every production of any country under the sun.

And, sir, permit me to say that, though we are hundreds of miles from the National Capital, and separated from the people of the East and South by what may seem endless plains and impassable mountains, yet we are in close sympathy with them in all national affairs and are exceedingly proud of the position we occupy in the great sisterhood of States over which you have been called to preside.

You will be convinced of these facts, Mr. President, by the cordiality with which you, as the representative of the whole country, will be received in every portion of the State.

I think it but just to the immediate portion of the State upon which you are entering, to say that almost the whole of the wonderful development which you will witness is the work of the last decade. Ten years ago, with few exceptions, what is termed Southern California was a desert, barren and unlivable, but now a veritable garden, beautiful to behold, and producing millions of dollars annually, bidding fair in time to control the markets of the world with her products. Ten years ago Los Angeles was but a back-country village, with less than 12,000 inhabitants, but now a city with nearly 60,000, with all the modern improvements for the comfort and convenience of man. What is true of her progress is also true of San Diego, San Bernardino and many other places.

Pursuing your journey to the north, you will see the beauties of Santa Barbara, the immensity of the San Joaquin valley—the natural granary of the world, developing like magic into orchards and vineyards, and so on to the magnificent city of San Francisco.

And, Mr. President, when you reach that great city I want you to remember that all the evidences of prosperity you will see, and they are countless, are but evidences of the immense resources of this State; for that city has been created, built and sustained out of the money flowing in from the sale of our own products,

which can be said of few cities of importance in the United States.

It has been arranged for you to see the central portion of the State fairly well, and I need not dwell on what is in store for you, as I do not believe such a country exists outside of California.

I regret that your visit is so arranged that you will not see in detail the northern counties, which, I assure you, are of themselves worth a trip across the continent. It is impossible to describe them and I will not attempt it.

In some of these counties lie millions and millions of dollars in gold, awaiting the discovery of a process of development, which will not injure other important interests and for which we must depend upon the General Government. I am confident that did these mines lie in either France, England, Germany or Russia those governments would take immediate steps to work them.

I regret exceedingly that the short time you will stay among us will not permit you to see the natural scenery for which our State is so noted, among which I need only mention the wonderful Yosemite Valley, the great redwood forests of the north and the mighty mountains with their wealth of beauty.

Mr. President, before closing, I want to ask you to take particular notice of our great lack of national public improvements, of our extensive shipping interest, our almost endless coast lines, almost defenseless and absolutely without harbors of refuge except at San Diego and San Francisco, either of which could accommodate the commerce of the world, but located nearly 500 miles apart.

The President in reply said he would not undertake, while almost choked with the dust of the plains he had just left, to say all that he hoped to say in the way of pleasant greetings to the citizens of California. Some time when he had been refreshed by their olive-oil and their vineyards he would endeavor to express his gratification at being able to visit California. He had long desired to visit California and it was the objective point of this trip. He had seen the Northern Coast and Puget Sound, but had never before been able to see California. He remembered from boyhood the excitement of the discovery of gold and had always distantly followed California's growth and progress. The acquisition of California was second only to that of Louisiana and the control of the Mississippi river. It secured us this great coast and made impossible the ownership of a foreign power on any of our coast line. It has helped to perfect our magnificent isolation, which is our great protection against foreign aggression. He thanked the Governor and committee for their kindly reception and assured them that if he should have any complaint to make of his treatment in California, it would be because its people had been too hospitable.

The program for the journey from Los Angeles northward was given in last week's RURAL. The division of the time in this city and at other California points up to departure for Oregon will be found on another page.

On arrival the President will be requested to change his program so as to visit Stockton en route for Sacramento. We hope the change will be feasible. Stockton should be included if possible.

## California at the World's Fair.

There is an unfortunate outcropping of affairs with reference to the representation of our State at the Columbian Exposition. The State Commissioners, whose appointment was noted in the last RURAL, find on assembling for conference that their work may be sharply arrested by the attitude which the National Commissioners may take in shaping the rules for the fair. It has been reported by telegraph that some of the National Commissioners, including at least one of California's representatives in that body, will take ground against separate State displays, and order all the articles placed under the headings contemplated by their scheme of classification. This would be a serious disappointment to the people of California who have been moved to generous appropriation for this work wholly upon the idea of having a separate California display, and not only that, but not to do this would render the appropriation of \$300,000 unavailable, for it was not made as a contribution to the World's Columbian Exposition's general fund. If it is not expended as intended by the Legislature, for a special exhibit, it cannot be expended at all, because the Constitution requires that expenditure of State money should be made under State auspices and not otherwise.

The chances are, then, if the National Commissioners insist upon a segregation of California material, that the State Commissioners would resign as having nothing to do, and the \$300,000 would remain in the State Treasury, which may be the best place for it after all. This will certainly be the popular decision on the matter if the National Commissioners do not show more regard for the wishes of the California people than they have hitherto.



## State Board of Horticulture Meeting.

Address by Hon. Ellwood Cooper.

In accepting again the position of President, I am not unmindful of the duties or responsibilities involved in so doing. We will be called upon to do more and make greater efforts in advancing the fruit industry. The attempt to abolish the State Board by the last Legislature ought to convince us that we will have to watch with the greatest care all legislative action so as to prevent the possibility of such a calamity as would result in any change in our organization. Among the fruit-growers and intelligent citizens of the State there can be but one feeling as to the importance of the work we are called upon to perform. We must accept the position only with the conviction that more is required of us.

The first Horticultural Bill was found to be inadequate, and required many amendments, which have been secured from time to time, until, as I thought, we had succeeded at the hands of the previous Legislature in getting a law that enabled us to render the greatest service to the fruit industry. We found that after all this struggle, and the devotion to the cause that stimulated our members in giving their time and best thoughts to the welfare of the State, that an attempt by ignorant legislators, either from partisan motives or for mere sensation, tried with one sweeping stroke to wipe us out of existence. The thing that we

plan (in writing) to be discussed at a Board meeting to be held in Marysville November next, before the convention convenes, as to how the legislative matter is to be presented to the fruit-growers at said convention. If there is to be uncertainty in the permanency of the work, I for one will feel discouraged and must decline any longer to take an active part.

An appropriation of \$5000 has been given to us for the purpose of defraying the expenses of an entomologist to Australia and adjacent islands to search for parasitic insects and send same (if to be found) to California for colonization and distribution among our fruit-growers to counteract the ravages of noxious insects so destructive to the fruit industry. We have written to the Secretary of Agriculture at Washington asking of his Department to place at our disposal Mr. Albert Koebele to send on such mission.

The importance of such a mission cannot be overestimated. I recommend that we pass a resolution of thanks to the Legislature and to his Excellency Gov. Markham for placing this amount at our disposal. Something ought to be done, some plan organized by which our horticultural reports could be reproduced. We are now without books, with a constant and increasing demand. At the meeting of the next Legislature we must be prepared to present definite information as to the size and probable cost of reproducing our entire work—that is, to abridge, selecting all the most important parts and putting in such shape that all the reports, commencing with 1885 and 1886 down to 1891, and including the same, would make one

roundings of little children, as soon as their notice and attention, their responsibility, is turned toward the care of plants, their watchfulness and guardianship is manifested in a remarkable degree. No instinct in children is so susceptible of development as the love of animals, the love of plants; it can be strengthened to such a degree as to be a bar against their selfish nature, a bar against surrounding evils.

We need a larger appropriation to prosecute our searches for parasite insects. Hundreds of thousands are expended in fighting insects by the various methods, which at best are only partially effective, and may in the end be given up. We should not relax our efforts in the direction of procuring the natural enemies to destroy all noxious insects that disturb our fruits. If our intelligence is not employed in the right direction we will surely be defeated. Then let us adopt nature's plan and call to our aid that which was created for the special purpose and placed within our reach. Our efforts will be crowned with success, and will pass down through history to the credit of California fruit growers, that they were first to practically demonstrate this part of the plan of creation.

The question of economy in the State appropriations should not deter us from demanding ample funds for such purposes. The State has appropriated \$300,000 that the different industries could be properly exhibited at the coming World's Fair. In the past few years millions have been appropriated for prisons, insane asylums, homes of different kinds, places for the

## Haywards.

The town of Haywards is called by its friends the most beautiful place in California. They declare that it ought to be called "Eden," the name of the township in which it stands. Its situation is well chosen. It stands where mountain and valley meet; a favored location at the entrance of the beautiful and fertile Castro valley. It is at an elevation above the Alameda valley sufficient to clear it effectually of the fogs that sometimes beset the lower valley, and to command a view of great compass and beauty, and yet not high enough or steep enough to make the ascent more than a gentle rise. The town is traversed by the magnificent macadamized highway known as the Oakland road, the main traveled way from Oakland to San Jose, a road that is almost an avenue of beautiful orchards and homes from end to end. Back from the town, roads, all of them excellent, lead to the many interior valleys among the mountains and through the picturesque canyons with which they abound. The hills are accessible and favored with fine-beaten roads, so that it is an easy matter to scale their heights and admire the splendid view of town and broad rich country surrounding it.

Our view of Haywards is taken from such a hill—the hill at the south of town upon which the cemetery. From it five counties can be



HAYWARDS, ALAMEDA COUNTY, AND ITS ENVIRONMENT.

have to do is to prevent the possibility of such action in the future. If each coming Legislature is to tamper with the horticultural interests, we cannot do effective work nor secure the best service in our executive officers.

We have now a very effective working department; our officers command the respect of fruit-growers, are intelligent, energetic workers and doing a service to the State that would be difficult to replace in the event of a change that might take place if their holding was insecure. Bordering States have seen the wonderful development of our fruit industry. All of them are untiring in their efforts to follow California's example. They are creating similar laws on the subject and will outbid us for effective service. We must therefore secure permanency to valuable workers. We must have an understanding among all the fruit-growers of the State that any legislator who dares to tamper with the horticultural interests must be debarred from any further political position requiring the suffrages of our people. This will be simple and tangible, because we represent all political parties. In the event of corruption or misapplied funds, I am confident that each member of the Board would be first to denounce it and eager in his efforts to bring about a change. The law is sufficiently explicit and has been wisely drawn. If the Governors do their duty, bad appointments will not be made. That our enemies were insincere is proved by the fact that not a single vote was recorded against us when it came to a final passage.

In our interview with his Excellency Gov. Markham, I am happy to state he is in accord with the fruit industries and fully agrees with the great feature of our work—that is, to furnish the literature that will inform the fruit-growers how to be successful in fruit-growing.

Now, gentlemen of the State Board of Horticulture, I call upon you each one to present a

volume of about 700 or 800 pages. Such a book could have no equal in horticultural importance. It would be invaluable to our public schools, in fact it is a necessity.

A certain number will be required for every school in the State. These books are now required by the curriculum of the schools. The children will not only be acquiring a knowledge of entomology but a practical knowledge of fruit-growing. Eastern tourists are purchasing lands in all parts of the State. It seems to be the ambition, the one desire, to possess a fruit orchard. We should encourage this and furnish such information as would encourage them as well as save them from serious mistakes. To satisfy this demand will require 20,000 copies. Some arrangement should be made to sell copies to other States and foreign countries. Probably 5000 copies would be sufficient for this purpose. Such books could be sold at a large profit to the State. I shall, at an early day, get the estimate from the Superintendent of Public Instruction of the probable number necessary for the public schools, and at a future meeting present my final recommendation.

The horticulture industry is the growing industry; it will sooner or later be the all-absorbing interest. We cannot take any steps backward nor remain in a stationary position; we must advance. Our greatest advancement will be through the medium of the public schools. There is a fascination in the study of natural science, and the development of plant life. It has been demonstrated already, even with the little that has been done, that the school children have been eager in the pursuit of this knowledge. Baron Fred Von Mueller maintains in his valuable lectures on arboriculture that the human mind cannot be properly developed without coming in contact with growing plants. The care engenders a sentiment, a feeling, for the protection of their best development. No matter how degrading may have been the sur-

wicked and unfortunate. The criminal is better housed and fed than some of our worthy and most industrious. Are these classes to absorb all our surplus, or shall we do something to encourage the worthy, the industrious, who are struggling for mere existence. We are rapidly multiplying inmates for these various institutions. The misery and degradation caused by drunkenness, by idleness and the whirl of shams in the extravagances of modern society is appalling. Let us turn our sympathies a little from the vicious and unfortunate to the virtuous, industrious and self-supporting; our best thoughts and greatest energies should be given in their behalf. By education alone can we counteract the growing evils. The laws of creation in their relation to the products of the soil, is the one important element in the instruction of our youths. It transcends everything else. Horticulture is the highest branch in this department. Our scope must be enlarged; we must assume a position adequate to the importance of our calling.

**BLUE LAKES.**—Professor Frank Soule has recently returned from an inspection of the water rights and works of the Blue Lakes Water Company in Amador county. He says that at the point in the Mokelumne river where the inlet of the company is established, the stream is a fine, large, wide river of the purest water, fresh from the melting snows of the Sierras. By its rights, the company practically holds control of the stream, which in volume would easily supply the whole of San Francisco, Oakland, Stockton and Sacramento combined. Some of the water is carried along a canal and flume to numerous mines and mills 30 to 50 miles below.

**A DOUBLE TIRE WHEEL,** with springs between the outer tire, is the subject of a recent patent granted in British Columbia.

seen, San Francisco and Oakland being plainly visible. The environment of Haywards is one of its charms. The stately groves of encycypus that intersperse Castro valley are especially a distinguishing feature. Where man has not interfered, as on the hills and elsewhere, the oaks stand in pleasing clumps. The orchards of fruit trees, apricots, cherries, peaches, plums and prunes, nut bearers, oranges and lemons, not to speak of ornamental and other trees, are present in every charming variety. The broad avenue that leads from the depot to town is lined with almond and walnut, thick sturdy stems that prove great depth of soil.

One advantage of Haywards is its proximity to San Francisco, the metropolis of the coast. In an air line it is only 12 miles, and by rail and ferry only 21 miles. From Oakland it is 14 miles, and is joined both by carriage road and train.

Haywards is an interesting town. It has a splendid system of water works, being supplied by large wells whence the water is pumped to a capacious reservoir upon the hill, descending by gravity to the streets, which are thoroughly piped. The town is lighted by electricity. It is a place of business activity. Its business houses are many and strong, and they command an important trade. It is estimated that the town is the center of supply for about 11,000 people, a statement borne out by reference to the table of populations given elsewhere, when it is remembered that a considerable section of Contra Costa county looks to Haywards.

**THE TACK INDUSTRY.**—Several attempts have been made to establish the tack industry in the South, but they have failed from difficulties in handling the material. This branch of the iron trade is in the hands of New England manufacturers, and is practically confined to Massachusetts. More than two-thirds of the tack business is controlled by that State and fully three-quarters by all of New England,



# AGRICULTURAL NOTES.

## CALIFORNIA.

### Butte.

**ORANGE PLANTING.**—Oroville Register, April 16: L. N. Eyer will this fall and winter set out 5000 orange trees. Half of these will be seedlings and the other half Washington naves. Mr. Eyer is enthusiastic over the cultivation of the orange and thinks that this fruit is just beginning to be planted in this section.

### Colusa.

**IRRIGATION IN COLUSA.**—Gridley Herald, April 6: There were on Saturday last shipped from Sacramento for Maxwell, Colusa county, several carloads of horses, to be used by them in constructing an irrigating canal in that vicinity. This canal is to extend from Stony creek to a point near Willows. It is expected to greatly benefit a large district that usually suffers from a lack of rain.

### Fresno.

**GRAIN CROPS IN FRESNO.**—Herald, April 18: Farmers assert that this year's harvest of cereals in Fresno county will be the largest yet produced. Several causes unite to effect the result. Last winter was so rainy that much of the land prepared could not be seeded and consequently it lay idle through the year. All the land thus lying idle was seeded this season, in addition to the acres worked last year, besides much new ground, consequently the present acreage of grain is very large. The cold and rainless weather which prevailed up to a short time ago prevented the grain from growing above ground, but the roots spread under the surface, and now that the weather is favorable grain is springing up rapidly and exceptionally heavy, a fact which promises a large yield to the acre. The rains since January have been sufficient to insure good crops, even should there be no rains henceforth, although such showers as have been falling lately would be welcomed in the early part of next month.

**RAISIN PLANTING AT OROSI.**—Oro. Exponent: The Arroyo Raisin Company, under its efficient superintendent, Mr. C. A. Suider, is planting 1,000,000 cuttings, and has now 50 acres to orchard and 100 acres to vines. It will plant, next season, 160 acres more to trees and vines.

### Kern.

**RAISINS AT BAKERSFIELD.**—Californian, April 16: Last year the first concerted effort to plant raisin vines was made in this locality. Already this year, from one dealer, 30,000 trays have been ordered, upon which to dry home-raised grapes.

**EXTENDING ORANGE-GROWING.**—Bakersfield Echo, April 15: John Barker is preparing to plant a large orange grove. He will, next spring, set out 120 acres, nearly all in orange trees. The ground selected is a tract along the bank of Kern river; many trees were lately there, but have all been cut down, the stumps rooted out, and now the ground is ready for the plow. Thorough plowing and other cultivation, together with exposure to the sun and air during the year, will bring the ground into the best condition for receiving the young trees, and planting will be begun as early next year as possible. For many years past, Mr. Barker has made regular and careful observations of temperature and other atmospheric changes; the lowest temperature marked by his thermometer during all that time was 28°, and that very seldom. At Riverside and other places now famous for oranges, the temperature often falls much lower than this.

**DELTA FRUIT CO.**—Bakersfield Californian, April 15: Since the 6th of January, the day work commenced, the land has been fenced with a rabbit and stock proof fence and placed under irrigation, and 160 acres set with raisin grapes—a job that was accomplished in 12 days—which are now in fine condition, and 150 acres sown with wheat. Ten acres were reserved for buildings and other purposes, and from the site of the dwelling to the public road an avenue 600 feet in length and 32 feet wide was constructed, bordered by rows of Adriatic fig trees. Along this avenue also are planted 2500 fig and 250,000 grape cuttings for future use. Water is supplied by means of a windmill which, as the air is always in motion, runs almost constantly. The water is raised into a large tank at the top of a tank house, and thence conveyed through pipes, under pressure, to all parts of the premises when needed. Contiguous to the dwelling is a lawn and flowers, and conveniently near a vegetable garden. The wheat will be cut for hay and the ground occupied by it (150 acres) will next year be planted with all kinds of fruit trees, including semi-tropical, but chiefly with peaches and prunes.

### Monterey.

**HORNED CATERPILLARS.**—Pajaronian, April 16: The horned caterpillar is showing up in such numbers that orchardists are anxiously wondering what the harvest of fruit will be. A prominent apple-packer visited a number of orchards in the valley during the month, and he had yet to find one without the presence of the dreaded caterpillar. A parasite in the shape of a fly has been very destructive to the caterpillar eggs whenever it could force its way into the nests. Where the nests were in exposed places, the fly did good work; but enough of the eggs were left to hatch out enough caterpillars for local business and leave a big surplus for export. Myriads of the caterpillars—now not larger than a pin-head—can be seen in the orchards where the caterpillar with horns made

his appearance last year. Extra precautions have been taken this year to prevent the spread of this pest, but they are here in numbers, and it is going to take lots of work or the presence of a speedy and destructive parasite to keep back the fruit-loving crawler with horns. More attention has been paid this season to spraying trees than ever before, but the washes used have not had a very perceptible effect in diminishing the number of caterpillars, though the spraying has been of benefit to the trees in other ways. In the northern counties, orchardists claim the most efficacious remedy has been a wash of one pound of Paris green in 160 gallons of water. Most of the growers claim that the damage from the caterpillars will not be greater than it was last year, but it is yet too early to make any estimates.

### Los Angeles.

**A MODEL ORANGE GROVE.**—Cor. L. A. Express: The 700-acre tract of the Alcazador Orange Grove & Fruit Company is being rapidly put in order and planted. At the head of each ten-acre lot, a brick flume is being built, making ten miles in all, with two miles of open stone ditch, cemented, with iron head-gates, etc.—everything built substantially and for durability. It has about 150 men, and from 15 to 20 teams at work, and has 400 acres set—200 to oranges and 200 to prunes and peaches, and the trees are doing well, and the remaining 300 acres will be set as soon as water is on the ground. A deep orange trimmed with green is the color adopted by the company, its wagons, etc., all to be of the same color.

### Napa.

**THE HESSIAN FLY.**—Napa, April 15: G. W. Watson of Napa Junction called at the Register office, bringing with him a handful of wheat stalks which he had pulled in a bunch from one of his fields. On examining them, in nearly every one was discovered that terrible pest which a few years ago did so much damage in that vicinity—the Hessian fly. Mr. Watson said that a few weeks ago the grain around the Junction never looked better, but that now it is nearly all infested.

### Orange.

**VINE DISEASE DISAPPEARING.**—Alhambra Review, April 18: The vine disease which caused such consternation in this and other localities, seems to have spent its strength, and courage is reviving among viticulturists. In Orange county over 100,000 grape cuttings will be planted this season.

### Placer.

**FRUIT AT GOLD RUN.**—Cor. Republican, April 15: The fruit industry is progressing rapidly and it will be but a short time until it will give a great deal of employment to labor. The late mountain apples have been going to San Francisco quite lively the past two weeks, where they find a profitable market.

### Sacramento.

**CROPS IN SACRAMENTO.**—Florin, April 13: Crop prospects were never better at this time of the season; all kinds of fruit and a larger acreage sown this year than ever before in this county, and feed for stock everywhere is in great abundance, and I see no reason why we should not have one of the most prosperous seasons that has fallen to our lot for many years past.—G. W.

**WARNING TO APRICOT GROWERS.**—R. B. Blowers, Woodland, in Bee, April 15: It is imperative that the apricot grower, if he desires clean fruit, should immediately spray his trees, for the shot-hole fungus has already attacked the young fruit. I am using this formula: To 25 pounds of whale-oil soap (another good, strong soap will answer), add 30 pounds of sulphur. Pour in a small quantity of water and thoroughly mix the soap and sulphur, adding a little water at a time as it is stirred; water until this mixture amounts to 40 gallons. To this add two pounds of dissolved bluestone. This will make, when properly diluted, 100 gallons of tree wash, which should be strained through ordinary butter cloth. This remedy can be used for codlin moth by the addition of one-half pound Paris green to the above quantity. This will be a good codlin moth remedy as well as for preventing any fungus disease which is liable to attack the pear at the present time. However, it is more necessary to immediately attend to apricots, and in a few days the Bartlett pear will be ready to receive the attention of the fruit grower.

### San Benito.

**BARLEY HEADING.**—Hollister, April 17: Barley is heading out in the Fairview and San Felipe sections.

**YIELD OF ALFALFA—FIRST YEAR'S SEEDING.** Advance, April 17: Any person with the idea that a crop of alfalfa hay cannot be cut the first year of seeding should pay a visit to the alfalfa fields south and west of town. From lands irrigated and seeded in the middle of January of this year crops of hay will be ready to cut in three or four weeks. The yield will average two tons to the acre.

### San Diego.

**OFFERING PRIZES TO KILLERS OF GOPHERS AND SQUIRRELS.**—Escondido Times, April 16: The Oakdale Horticultural Committee, to whom was referred the matter of organizing a squirrel and gopher exterminating club, made their report. The plan reported was that two purses be made up—one for squirrels and one for gophers. Any person may join the club by paying 50 cents into either purse, or by paying \$1 may compete for both purses. The one

presenting the most scalps in either case will receive three-fourths of the purse, and the one the next largest number, one-fourth of the purse. The object of the club is to present a stimulus for the extermination of the pests. The capture and presentation of scalps began on the 1st of March, and is to run for six months.

### San Joaquin.

**WATERMELON PLANTING AT LODI.**—Valley Review: Many of our most prominent melon raisers will decrease their acreage this season, as suitable soil and location cannot be obtained owing principally to the increased acreage of wheat which has been planted this season. All the summer-fallow land available has been secured for this season's plant and the patches will be perceptibly smaller. In former years there has been as high as 250 or 300 acres in a single patch of melons, while this year it will be hard to find a melon field of more than 160 acres. Following we give a list of the names of planters and the number of acres each will handle: Sam Broddus, 100; Mr. Bancroft, 150; A. J. W. Green, 80; T. N. Smart, 80; scattering, 40. The foregoing is all the land planted north of the Mokelumne river, while for this side of the river we give the following: L. O. Gillispie & Son, 160; J. Thompson, 50; S. H. Tyndell, 80; H. Tecklenburg, 80; Pope & Trorr, 80; Andy Harmon, 80; J. Lang, 80; Carver & Coleman, 80; H. C. Gillingham, 60; John Acker, 50; John Hutchins, 60; Troy & Harker, 80; Wilson & Edlemon, 80; John Kelly, 30; J. Perrott, 50; J. F. Parson, 10; renters on Brook place, 150; Chinese planters, 180; scattering, 90; making a total of 1880 acres.

**WOODBIDGE IRRIGATION CANALS.**—Stockton Independent, April 16: The flume is 30 feet wide and the water is to pass through it into the main canal, which is 30 feet wide on the bottom and three-quarters of a mile long. At its terminus, the east branch which runs to the Calaveras river, 13½ miles, begins. Of this branch several miles are ready to receive the water. The west branch, which extends eight miles to Sycamore slough, is well under way and the north branch will extend to Ferson slough, seven miles. Other branches are contemplated to the extent of 15½ miles, which will make a total of 44 miles of canals. The land in the immediate vicinity of the canals shows the influence of its commencement. Large areas are planted to fruits and vines, and all along the Lower Sacramento road for miles southward are fields with 10 and 20-acre patches, and some far larger, where vines are just beginning to show. In the immediate vicinity of Woodbridge is one field of about 100 acres that is intersected by the main canal. It is planted with figs and vines, which look beautiful and thrifty. The water will be put upon these new orchards in June and will be kept supplied as long as it may be required. Several residents of the vicinity are experimenting with a great variety of fruits and making close observations of the results. One man has about 20 varieties of figs, another as many of grapes, and each is determined to know to a nicety which is the most profitable and best adapted to the climate, soil, etc.

### San Luis Obispo.

**BEAN PLANTING AT OAK PARK.**—Cor. S. L. O. Tribune: Bean planting is the order of the day. This locality comes well up with Arroyo Grande as a bean country. Beans seem to grow well here, and there are no "Bugs" to prey upon them as is the case at Arroyo.

### Siskiyou.

**CROP PROSPECTS IN SISKIYOU.**—Yreka Journal: The farmers have been enabled to plow and put in good crops lately from the advantage of several rain storms. Considerable new ground has been plowed up during the winter, and if we have frequent spring showers until the last of May, we may anticipate the largest production of grain ever realized in Siskiyou, and also a heavier harvest of hay than usual. The fruit prospect never looked better than at present, the trees blooming luxuriantly, with certainty of a great abundance of all kinds of fruit, unless very heavy frosts occur at the dangerous time during middle or last of May.

### Solano.

**BEES SAID TO INSURE A CHERRY CROP.**—Vacaville Enterprise, April 18: The cherry crop of Vacaville valley has been an uncertain quantity. The famous Smith orchard has not had a first-class cherry crop since 1885, at which time they succeeded in bringing cherries of the early Purple Guigne variety into Vacaville on the 31st day of March, and which were shipped to the city and there sold April 1st. Other seasons the cherry crop has been only partially a success. The reasons for this have been unaccountable, though it has been attributed to the varying conditions of the season, at one time a north wind, another a chilling rain. That these incidents had some effect is no doubt true, but that they were solely responsible was not believed by the Bassfords. These observant gentlemen, whose experience in cherry-growing goes back to a time when the neighborhood of Vacaville was not, as now, a vast orchard, recalled the fact that cherries used to be a sure crop, and sought for the cause of the change. It occurred to them that the bees, which in the early beginning of the fruit business in this section were numerous in the orchards, and which for several years back had been conspicuous by their absence, had something to do with the success of the cherry crop. Acting on the theory that the fertilization of the cherry blossom was affected beneficially by

the presence of the bees, the Bassfords secured several hives and waited results. Last year, the first in which the matter was tested, the result was favorable, the Bassfords having cherries while the other ranchers found their crops an entire or partial failure. This year the Bassfords have about 65 hives of bees.

**SHORT ALMOND CROP IN SOLANO.**—Republican, April 18: The almond crop will again be short this year, and not over half a crop is expected. Generally when the almond crop is short, the crop following is larger than usual, but this year it will be different. Some orchardists seem to think the trees have not fully recovered from the effects of the continued rains of last year.

### Sonoma.

**RAMIE PLANTING IN SONOMA.**—Index-Tribune, April 18: Capt. Boyes has set out five acres, or 12,000 roots; T. S. Gleister of Green Oaks has planted 5500; Weaver of El Verano, 2500; F. Grothaus 200, and T. O. Wilkinson 1000 roots. A number of other farmers have ordered roots and will also plant.

### Stanislaus.

**LARGE RAISIN VINEYARD IN STANISLAUS.**—Modesto News, April 17: L. M. Hickman has just planted a 360-acre tract of raisin-bearing vines on his land. The tract is entirely surrounded with two rows of choice fig trees, with a driveway of 60 feet between. The land is also crossed with the trees from both sides. About 2000 trees are thus used. In the center of the land a plat has been reserved for orange trees. A rabbit proof wire fencing is now being put up and will be surrounded by a two board fence.

### Sutter.

**RAMIE PLANTING IN SUTTER.**—Marysville Democrat, April 18: Among those who will plant ramie is M. Marcuse, who will plant 10 acres; N. A. Rideout, 10 acres; F. Hines, 5 acres; J. Cohen, 5 acres; H. P. Stahler, W. H. Phillips, C. J. Coville and others will plant various numbers of acres.

### Tulare.

**INCOME FROM A TULARE ORCHARD.**—Times: Paige & Morton, only two miles west of Tulare, have 119 acres planted to peach trees that are four and five years old which last season gave a return of \$522 per acre; 25 acres of apricots that paid a net income of \$211.70 per acre; 20 acres to pears, five years old, \$350 per acre; 1000 prune trees, four and five years old, \$308.20 per acre. There are 800 acres of the ranch planted to raisin grapes. Two hundred acres of these vines, three years old, yielded 400,000 pounds of raisins, which were sold for the sum of \$24,000, in the sweat-box. There are three-year-old vines in this vineyard that gave a net return of more than \$100 per acre. There are orchardists here who, last season, could have sold their fruit crops at one cent per pound and then have realized a net average income of \$100 per acre. The success attained by those engaged in orchard and vineyard culture has caused many people to engage in the business this season; and that all might have an opportunity, numerous colonies have been laid out.

**THE EXPERIMENTAL STATION IN TULARE COUNTY.**—Times, April 15: Located one-half of a mile east and one mile south of Tulare City is the experimental or culture station. There are 20 acres of land connected with this station, which is cultivated to trees, vines and a numberless variety of seeds, the object being to ascertain what can be grown with the greatest profit on such lands as are to be found in this part of the San Joaquin valley. Last season 60 varieties of wheat and 18 of barley were grown at the station. The three varieties of wheat giving the best returns, or yield, are known as the California Spring, Archer's Prolific and the Whittington. Cultivation is more depended on for raising cereals at the station than irrigation—in fact, there is no ditch-water used on the place. Some water is needed for trees and vines, and this is secured by pumping from a well with a horse-power. The land on which wheat and barley are raised is first stirred with a plow to a depth of 10 or 12 inches, and the clods thoroughly pulverized with a harrow. There is now growing on as poor alkali lands as is generally found in this county several varieties of wheat, well headed out and that would give a good yield if allowed to mature. However, the crop was grown for hay, and is now ready for the mower. Valuable experiments are being made there as to what can be produced on alkali lands, what can be grown without irrigation, the varieties of wheat or barley that will give the largest yield per acre, the grasses that can be grown for hay, as well as experiments in the growth of trees and vines that yield fruit. It has been demonstrated that sorghum can be grown on alkali lands that will yield neither wheat nor barley. Sorghum can be used for feeding stock, and is a profitable crop for that purpose. Farmers having a number of acres of alkali soils on their ranches could make the land profitable by growing this crop.

**SMALL CLIP OF WOOL IN TULARE.**—Enterprise, April 17: The wool clip this season was the smallest in the memory of the sheepmen in this county. It is due to the scarcity of feed and the cold weather, which depletes the weight of the wool by lowering the quantity of natural grease which emanates from the sheep's body and is absorbed by the wool.

**STOCK PURCHASES.**—Porterville Enterprise, April 10: On Friday last L. D. Whitt shipped

(Continued on page 404.)



## Getting their Catalogues.



WE value to the utmost our out-of-town post office acquaintances. Uncle Sam is our hard working ally and we have no disposition to make his tasks lighter. He grumbles a little during busy seasons when an avalanche of mail orders flood his office here, but that matters little so long as you get your goods on time.

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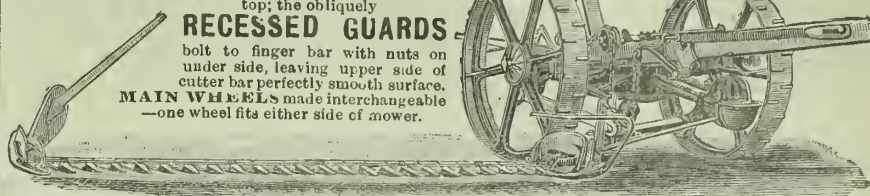
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TWENTY ACRES A DAY instead of ten.  
**CUTTER BAR** has no nuts or obstructions on top; the obliquely  
**RECESSED GUARDS** bolt to finger bar with nuts on under side, leaving upper side of cutter bar perfectly smooth surface.  
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**NO SIDE DRAFT**  
as CUTTER BAR is carried entirely on Main Wheels.

**7-FOOT** mower will do as much with one team as two 4-foot machines, SAVING half the corners.

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**EASILY TILTED.**  
THE STANDARD MOWER can be entirely taken apart and put together again by the farmer with a common wrench. SEND FOR SPECIAL CIRCULAR.

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Directions (most simple, easy of application) sent with each shipment. This wash is guaranteed not to harm the leaf, buds or in any way keep them from forming.

Please observe the price. Put up in cases, 45 pounds in each can, two cans in a case, two cents per pound; in barrels, 1 3-4 cents per pound; by the ton, 1 1-2 cents per pound. Weight, nine pounds to the gallon. To one gallon add seven gallons water, result eight gallons ready for use, at a cost of thirteen and one-half cents. Correspondence solicited.

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## Agricultural Notes.

(Continued from page 402.)

one carload of cattle from Visalia to the San Francisco market. On Sunday, he shipped 55 hogs and 9 beef cattle from Porterville; on Monday, one carload of beef cattle; on Tuesday, he purchased from W. F. Jordan of Yokohama 200 beef cattle, and on Saturday 35 beef cattle from J. S. McGahey of Deer Creek, 100 head of cattle from W. Simmons of Deer Creek, and all the cattle and calves and two carloads of sheep from John Heard of Lewis Creek.

**PUMP IRRIGATION A SUCCESS.**—Visalia Times, April 15: Samuel Richardson has demonstrated the fact that orchards and vineyards can be irrigated from wells at small cost. He has a 10 acre vineyard near Tulare City that he irrigated by the pumping process in five days, using a horse-power and a triple-action pump. He did not use a reservoir, but pumped the water into a ditch, and there conducted it into furrows plowed on each side of the vines. The well used was about 200 yards distant from the vineyard, and the soil is of a sandy character. The land was as thoroughly watered as it could have been by the use of ditch water, and there was an advantage in this method of irrigation, in the fact that no noxious weeds were conveyed to the land, as is usual where ditch water is used. Mr. Richardson feels confident that a 20-acre vineyard can be thoroughly watered and kept in a good stage of growth by the pumping process, using a common horse-power, and where a gasoline engine is used, a larger acreage could be irrigated. E. W. Holland, G. Q. Gill, Caleb Thompson and Irwin Wilson own an 80-acre tract of land, 40 acres of which is in vines, which is also being irrigated from wells. These gentlemen state that though their property is in the Tulare Irrigation district, they will have no use for water from the canal when constructed, as they prefer the water from wells for irrigating purposes, for the same reason advanced by Mr. Richardson—well-water does not convey noxious seeds on the land. The property on which these vineyards are located is a very sandy soil to a depth of 10 or 20 feet. Each of the gentlemen will procure a gasoline engine in the near future with which to pump water to irrigate their vineyards. They do not consider that it will be necessary to construct expensive reservoirs either for holding water, but will pump directly into a ditch and conduct the water to each row of vines. The wells used are only 40 to 50 feet in depth, and furnish an abundance of water. The first stratum of water in these wells, however, is reached at a depth of only 10 or 12 feet.

## Ventura.

**CONTRACTING FOR APRICOTS.**—Ventura Free Press: A. Gandolfo has been contracting with growers for a term of three years at the rate of \$20 a ton, everything on the trees to be counted. It is learned that he has contracted for nearly all the fruit on the avenue, estimated at 1200 tons, except from N. B. Smith and a few others. Contracts have also been made with Santa Paula growers, and, generally speaking, they are well pleased with the prospect and the price, as it means an average of \$100 an acre for the fruit crop.

## Yuba.

**LARGE SHEEP.**—Wheatland Four-Corners, April 18: Last season Mr. Jasper received a number of Leicestershire sheep from the East. This week, when the shearers commenced work on his flock, these sheep were the chief subject of comment on account of their unusual size and the length of their fleeces. It took two men to shear one of the ewes, which weighed 225 pounds after yielding to the shears a 10-pound fleece of long, clean wool. Mr. Jasper hopes at some future time to have a large hand of this breed.

## Yolo.

**EARLY FRUITS AT ESPARTO.**—Independent: W. E. Cole states that the peach crop will be heavy, and the young apricots are so numerous on the trees that he will have to hire help at a cost of \$200, to pick off some of the half-formed fruit, in order to save the remainder. Fully three-quarters will have to be removed. On some half branches, only five inches long, there are from 20 to 40 apricots now. This, he says, is due to his having summer pruned. The apricots are turning red and the crop promises to be early and large. Prune trees are set fuller than they can bear. But, as some of the prunes always fall off after getting half-size, no thinning will be needed.

**GRAIN CROPS IN YOLO.**—Mail, April 18: Farmers say that the late rains were sufficient to insure crops, and that no more rain during the season will be required. Present indications point to an unusually heavy harvest of wheat and barley. The barley crop will be larger this year than it usually is on account of the high prices that cereal has commanded during the winter. Summer-fallowing is the present occupation of the ruralist. Most of the ground plowed before the rain will have to be plowed again to keep down the weeds and oats.

## ARIZONA.

**ARIZONA BEEF CATTLE FOR CALIFORNIA.**—Tucson Citizen, April 18: The cattle pens at the railroad this morning were the scene of bustle and confusion. There were being loaded for Los Angeles 15 cars of feeders, 2, 3 and 4 year olds, purchased of prominent ranchers of the county. The price paid is for four years

old and over, \$14; for three-year-olds, of which there were most, \$13, and for two-year-olds, \$10. The stock are, so cattlemen say, as fine a shipment of feeders as has ever been made from Tucson. A shipment of 175 head of steers will be made from the pens to-morrow, also a quantity of calves, from Marsh & Driacolls ranch, for San Francisco. The price paid is 2 cents a pound cash for the steers, and \$7 per head for the calves. This shipment is all beef cattle, and nice fat stock it is reported. Cattlemen report that cattle prices are having an upward tendency. The stock of Arizona are of a better grade than of former years, and the intention of the ranchers is to keep up the improvement. They are no longer all horns, and the diffusion of good blood is indicated by better weight and better prices. Shorthorn and Durham bulls have been bought of owners of herds of those breeds, and the Hereford breed will next be crossed on the present stock. S. Otero intends buying 150 Hereford bulls of Salt River and San Pedro valley ranchers.

## THE VETERINARIAN.

## Red Water in Cattle.

**EDITORS PRESS:**—I have some cattle affected with red water. Please ask Dr. Buzard to advise me what to do in the columns of the RURAL PRESS. I have been told that salt is good to give them. Kindly attend to this at your earliest convenience, and oblige.—C. S. W., Guerneville, Cal.

The causes of this most troublesome complaint, "Red Water" (*Hæmo-albuminuria*), are still in dispute; probably they are as varied as the theories that have been advanced to account for it. Among them are irritant and unwholesome food, a poor diet generally, acrid plants found in the pastures (such as *colchicum*, *ranunculi*, etc.), stagnant water, roots grown on unimproved soils, woody districts, overdriving, sudden changes of temperature, changes of pasture, besides many other reasons. It has also been considered as a variety of anthrax, and classed, like "black-leg," or "quarter-ill," as an anthracoid disease, and therefore due to specific influences. All these reputed causes cannot, of course, be right, but some of them may predispose to attacks by inducing digestive and liver derangement. Its prevalence in certain districts, on particular farms in a given district, and even in certain pastures in these farms, is very generally recognized, and periodic dressings with salt is spoken of as an effectual preventive. A free allowance of rock salt to the stock is also reputed a useful preventive, while some profess to find an efficient cure in a solution of salt administered as a medicine. I am inclined to think, however, that some useful remedies may be found, and my experience is that salt as a cure does not compare with salt as a prophylactic. Whatever the exciting cause, an impoverished condition of the blood, owing to malnutrition, is present. The albumen of the blood being degraded in quality, becomes unfit for the nourishment of the tissues and is therefore excreted by the kidneys and expelled. Farmers recognize red water principally by the color of the urine, which varies from a mahogany or port wine color to that of porter, and they invariably describe the urine as containing blood. This altered secretion is one of the prominent eruptions and is especially diagnostic. Blood, as blood, does not, however, exist in the urine as red water, or, as in true hæmaturia, it would clot. The color is due to the escape of the blood-coloring matter, the principle called hæmatin, through disintegration of the cell walls of the red blood corpuscles. The liver is probably the organ at fault, but with our limited knowledge of its functions it is not yet clear how these changes are produced.

The treatment is happily more successful than investigations into its causes have hitherto proved. To rid the bowels of irritant material and stimulate the liver, give: Barbadoe aloes, one ounce; nitrate of potash, half an ounce; ginger, half ounce; sulphate of magnesia, 12 ounces; in a quart of warm beer. A cathartic is indicated even if diarrhea be present, which is sometimes the case. In three hours after the above, give: Turpentine, two ounces; spirits of niter, 1½ ounces; linseed oil, one pint. Give a change of pasture or remove from the one in which the attack commenced; or if stalled, change the diet, which should be highly albuminous. If the color of the urine still persists, a course of tonic medicine must be given, such as sulphate of iron, one drachm; chlorate of potash, half an ounce, in warm water twice daily. Milk and eggs are highly useful in chronic or persistent cases.

A. E. BUZARD, M. R. C. V. S. L.  
11 Seventh St., S. F.

## Treatment for Caked Bag.

**EDITORS PRESS:**—This being the season when cows are dropping their calves, at such times there is more liability to derangement of the udder than at any other time. The diseases most commonly met with are inflammation and hardness or oake of the udder and garget. For the above conditions there is nothing better than *Phytolacca decandra* (poke root), which has long been used over a wide area of the Atlantic States by the country people for garget or caking of the udder in cows. For garget keep the udder moist with the dilute tincture. In case abscess is threatened, then *R. Tinct. phytolacca dec.*, four

ounces; aqua, one pint; mix sig., to be used as a dressing or external application. It should be warm when applied. For internal use, from two to four drachms of the tincture of *Phytolacca* is to be given in bran or other suitable feed three times a day. We have seen marvelous cases performed by use of the above remedy, and, used in connection with other necessary sanitary regulations, never fails to effect a cure, and especially in the case of garget. O. F. SHAW, M. D.

Santra Cruz, Cal.

## The New Law on Contagious Diseases.

The following Act to amend Sections 400 and 401 of the Penal Code of the State of California, relating to contagious diseases among animals, was approved March 10, 1891.

Any person who shall knowingly sell, or offer for sale, or use, or expose, or who shall cause or procure to be sold or offered for sale, or used, or expose, any horse, mule or other animal having the disease known as glanders or farcy, or who shall bring, or cause to be brought, or aid in bringing into this State any sheep, hog, horse or cattle, or any domestic animal, knowing the same to be affected with any contagious or infectious disease, shall be guilty of a misdemeanor.

Every animal having glanders or farcy shall at once be deprived of life by the owner or person having charge thereof, upon discovery or knowledge of its condition; and any such owner or person omitting or refusing to comply with the provisions of this section shall be guilty of a misdemeanor.

## Air-Blasting for Rain.

We have all heard of aerial concussion as a mooted cause of rainfall. Systematic trial of this method is now to be made, by order of Congress, under the auspices of the Department of Agriculture. We read in the *Scientific American* that Senator Farwell of Illinois proposes to devote himself to the scientific work of trying to produce rain by the firing of cartridges of gun-powder or nitro-glycerine high up in the air. During the last session, Congress appropriated \$2000 for carrying on experiments of the kind, but Senator Farwell does not intend to limit himself to this small sum, and will, if necessary, contribute from his own pocket such sum as may be necessary to complete the trial to his satisfaction. The main fact on which the theory of the experiments is based is the circumstance that heavy cannonading is often followed, after a day or two, by rain. Acting on this observation, attempts have been made at intervals, during the last hundred years, to produce rain by firing cannon and producing concussions of the air in other ways, but without much success. Senator Farwell, however, says that during the construction of the Central Pacific railroad through the arid region east of the Rocky mountains, where a great deal of blasting was necessary, it rained every day that there was blasting. For this reason, he thinks that a sharp explosion of nitro-glycerine, produced high up in the air, would be more effective than cannon firing near the ground, and he proposes to send up balloons in the dry portions of Western Kansas and Colorado, furnished with torpedoes and slow matches, by which he hopes to obtain a concussion extending for 50 miles in every direction.

## One of Our Large Mercantile Houses.

Growth and development are always interesting. Everybody knows this is true in the physical and intellectual world. Is it not equally so in the realm of business? The J. Dewey Company is a striking example of such growth. The concern began in this city in 1860 as F. Dewey & Co., the business then consisting of Pacific Coast Agency for one or two subscription books. From the first the firm name was a synonym for that energy and business ability and integrity which rarely fail of success. We have not space here to trace even in outline the various stages of growth. Gradually and surely the business was enlarged. Five years ago, the Dewings were joined by Mr. William L. Oge, at which time the company incorporated under the present name, with James Dewey, president, M. S. Dewey, vice-president, and William L. Oge, secretary and treasurer. Soon after, an art-printing establishment was opened in New York City for the publication of Picturesque California, the superb art work, which makes the name of this company a household word throughout the United States, and bids fair to make it well known all over Europe as well, doing more for California doubtless than all the direct advertising that has ever been done. The company in earlier years became thoroughly identified with subscription-book business of the better sort, in their hands having been placed the sale of most of the large and important works, *Encyclopedia Britannica*, the great histories of the last two or three decades, Grant, Blaine, Fremont, Sheridan, Sherman, McClellan, Battles and Leaders, Century Dictionary, and just now the wonderful Life of Lincoln by Nicolay and Hay and the history of the great war. They have become so widely known in subscription-book business that many of their friends hardly realize the vast scope of their present business. They keep a full line of miscellaneous books and stationary, one of the largest and most varied stocks kept on the Pacific Coast; they manufacture and deal in pianos and organs; they have recently opened an extensive art department; they are perhaps the leading house in school furnishing, libraries, maps, charts, globes, apparatus, supplies, school furniture and bells. All in all, their salesrooms and warerooms are well worth seeing, even by those interested only as sightseers.

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Address E. M. DEWEY, Porterville, Tulare Co., or A. T. DEWEY, 220 Market St., S. F.

## New Books for Horticulturists.

**A New Book on Propagation of Plants.**—"THE NURSERY BOOK," by Prof. L. H. Bailey, Editor of *The American Gardener*, has been prepared with the utmost pains. The book is absolutely devoid of theory and speculation. It has nothing to do with plant physiology, nor with any abstruse reasons of plant growth. It simply tells plainly and briefly what every one who sows a seed, makes a cutting, sets a graft, or crosses a flower wants to know. It is entirely new and original in method and matter. The cuts number almost 100, and are made especially for it, direct from nature. The book treats of all kinds of cultivated plants, fruits, vegetables, greenhouse plants, hardy herbs, ornamental trees and shrubs, and forest trees. A "nursery list" is the great feature of the book. It is an alphabetical list of over 2000 plants, with a short statement with each, telling which of the operations described in the first five chapters are employed in propagating them. About 300 pages, 16mo. Price, in library style, cloth, wide margins, \$1; pocket style, paper, narrow margins, .50 cts.

**The New Potato Culture**, by Elbert S. Carman, Editor of the *Rural New Yorker*. For the past 15 years the author has given a part of his time to potato experimentation, in the hopes that he might throw some additional light upon the various questions involved in the central problem, "How to increase the yield without proportionately increasing the cost of production." The object of Mr. Carman's book is to show all who raise potatoes, whether for home use solely or for market as well, that the yield may be increased three-fold without a corresponding increase in the cost; to show that the little garden patch, of a fortieth of an acre perhaps, may just as well yield ten bushels as three bushels; to induce farmers and gardeners to experiment with fertilizers, not only as to kind, that is to say, the constituents and their most effective proportions, but as to the most economical quantity to use. Price, cloth, 75 cts.; paper, .40 cts.

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220 Market Street, San Francisco, Cal.

## Treatise on the Horse and His Diseases.

By B. J. KENDALL, M. D.

35 Fine Engravings showing the positions and actions of sick horses. Gives the cause, symptoms and best treatment of diseases. Has a table giving the doses, effects and antidotes of all the principal medicines used for the horse, and a few pages on the action and uses of medicines. Rules for telling the age of a horse, with a fine engraving showing the appearance of the teeth at each year. It is printed on fine paper and has nearly 100 pages, 7x5 inches. Price, only 25 cents, or five for \$1, on receipt of which we will send by mail to any address.

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ALL METAL SPADING HARROW.

HORTICULTURISTS AND FARMERS, TRY IT.

JUST THE THING FOR WORKING SUMMER FALLOW LAND.

SPECIALLY ADAPTED FOR ORCHARDS AND VINEYARDS.

FOR TWO HORSES. Works the soil about six feet wide. Angle of teeth adjustable to work the soil at desired depth. THIS HARROW is something entirely new. IT IS THE GRANDEST ACHIEVEMENT of its inventor, C. LA DOW, who is the recognized authority on Harrows, there being but few leading harrows at the present time not built under his patents. We have made exclusive arrangements for its sale and it can be obtained only through us or our agents.

THE NAME "SPADING" refers to its action on the soil. The action of each cutter is like that of a small spade, lifting and turning the soil from a depth of four to six inches, doing more perfect work than is possible with any other harrow in the world.

THE BLADES are made from spring steel, in operation vibrating and shaking off sticky soil. IT NEEDS NO SCRAPERS to clean the revolving cutters.

Considering the immense amount of labor done, the draft is very light, as the pulverized soil passes through the gangs of revolving cutters, being left smooth. THE GANGS are so arranged that the most uneven ground is thoroughly harrowed and left level. It leaves NO FURROW or ridge; when the field is harrowed it is all left smooth. 10, 12 and 14-ft. sizes in stock. SEND FOR CIRCULAR.

TESTIMONIALS.

H. C. SHAW PLOW WORKS, Stockton, Cal.—DEAR SIR: Your Triumph Spading Harrow is all that is claimed for it. It is the most perfect pulverizer I ever used in my orchard and is not wearing or exhausting on the team. Yours truly,

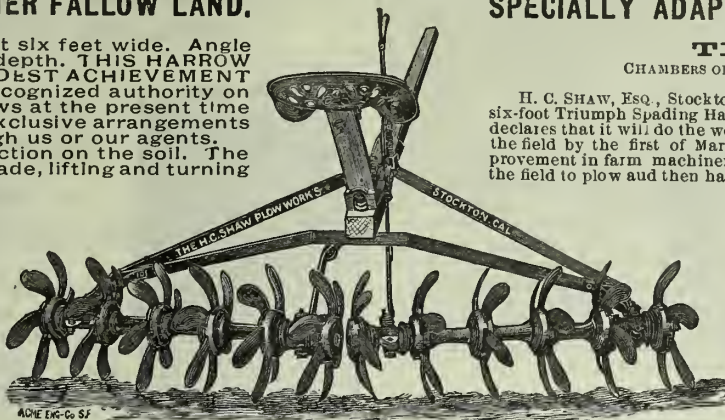
HAYWARDS, CAL., Jan. 15, 1891.  
WILLIAM C. BLACKWOOD.

SANTA ANA, CAL., Jan. 16, 1891.  
The man using the Triumph Spading Harrow we bought of you, writes us as follows: "The Spading Harrow is all that could be wished. In one hard work it can be run nearer to the trees than any other kind, and does away with hand hoeing to finish with. I have also used it to harrow new soil, and it is first-class for that. It takes nine days only with one span of horses to harrow my orchard of over 100 acres, and does it better than with any other cultivator I have ever seen.—DWIGHT WHITING, El Toro, Cal." Yours truly,

SAN FRANCISCO, CAL., Jan. 16, 1891.  
The gentleman using the Triumph Spading Harrow we bought from you for him writes us as follows: "That the Triumph Spading Harrow is in fact a triumph over all the harrows I have ever used. The first trial I made was on a 30-acre field sowed with barley; 15 acres were harrowed with the Triumph in one day as perfect as it is possible to be. The other 15 acres I harrowed with a common harrow and it took me three days, and then it was not in as good condition as that harrowed with the Triumph. The Triumph does splendid work and as a harrow I consider it worth three times as much as the ordinary harrow, as well in the field as in the orchard and vineyard. It is a perfect pulverizer and weeder.—C. STROEBEL, Eagle Home Farm, Searsville, Cal." Yours Truly,

COLMENA ORANGE GROVE; Capital Stock, \$100,000; A. F. ABBOTT, Pres.; G. W. PEACOCK, Treas.; E. P. McDANIEL, Sec. MARYSVILLE, Yuba Co., Cal., Jan. 20, 1891.

Messrs. H. C. SHAW PLOW WORKS, Stockton, Cal.—GENTLEMEN: Enclosed find check for payment of your bill for Spading Harrow sold to me by Mr. Hill. I shall take pleasure in recommending it to my friends, and think the Triumph will have a large sale in this locality. I am pleased to say to you that the machine is a most excellent one for cultivating the ground and pulverizing it in good shape. For an all-round useful machine, I feel sure any one buying it will appreciate its value. Yours truly,



TESTIMONIALS.

CHAMBERS OF THE JUDGE OF THE SUPERIOR COURT, JOHN C. GRAY, JUDGE. }  
OROVILLE, BUTTE CO., CAL., Jan. 27, 1891. }  
H. C. SHAW, Esq., Stockton, Cal.—DEAR SIR: I purchased from your Agent, Mr. Hill, one six-foot Triumph Spading Harrow, and sent the same out to my olive farm to try. My foreman declares that it will do the work of four plow teams, and requests me to get another to put into the field by the first of March. He is highly delighted with it and calls it the greatest improvement in farm machinery he has yet seen. Instead of putting a number of teams into the field to plow and then harrow the ground, I shall go over it with the Spading Harrow twice and the work will be more thoroughly done, and at one-third of the expense. This is one of the most complete pieces of farming machinery that I have yet seen, and I cheerfully recommend it to those, who, like me, want the most and best work done for the money. It gives entire satisfaction. Yours truly,

JOHN C. GRAY.

WALNUT GROVE, CAL., Feb. 21, 1891.

H. C. SHAW PLOW WORKS Stockton, Cal.—DEAR SIR: The Spading Harrow arrived all right and gives perfect satisfaction. I put it on a piece of very rough sod that had been used for pasture for several years, and when it was plowed it was as rough as it was possible to make it. I also had one of the leading Disc Harrows (6-foot) side by side with the Spading Harrow, and we gave them a thorough test, and it was conceded by all present (and there were five or six present) that it was the best thing in the way of a rolling harrow they had ever seen. It did better work and the draft was at least one-third less than in the Disc Harrow, and when we were through the man who owned the Disc Harrow said he wished he did not own it, as he would buy one of the Triumph Spading Harrows. Yours truly,

L. D. GREEN.

BAKERSFIELD, CAL., Jan. 26, 1891.

H. C. SHAW PLOW WORKS, Stockton, Cal.—DEAR SIR: After using your Spading Harrow in all kinds of work, I will say it is the best pulverizer that I have ever seen. I used it to cultivate my orchard and vineyard, and it does not only cut up all weeds, but leaves the roots up to the sun, which is sure death to them. You may praise it as high as you like, as you cannot say anything it does not deserve. Yours respectfully,

C. A. MAUL.

LOS ALISOS RANCH, EL TORO, ORANGE CO., Jan. 25, 1891.

Messrs. H. C. SHAW & Co., Stockton, Cal.—GENTLEMEN: The six-foot Spading Harrow which I purchased through Messrs. Nichols & Ulm of Santa Ana has given much satisfaction, and it does its work thoroughly and quickly. I have given my orchard several harrowings to keep down weeds, and with one pair of 1200-pound mares I harrow 8 to 11 acres per day. You can get nearer to trees than with any other rotary harrow I ever saw used. I have also used the harrow for seeding barley and for fallow land, and I consider it the best machine in use, as for a lump or clod breaker and an orchard evenner it does its work better than any harrow I have ever used. Yours truly,

DWIGHT WHITING.

EUREKA, HUMBOLDT CO., CAL., Feb. 17 1891.

Messrs. H. C. SHAW PLOW WORKS, Stockton, Cal.—DEAR SIR: We would have written sooner in relation to the Triumph Spading Harrow, but we have been waiting for the foreman's report on the Harrow's work. He says it is a "daisy" and beats anything he ever saw. Send us another at once, and oblige, Respectfully yours,

H. H. BUNNE & CO.

PIXLEY, CAL., Jan. 12, 1891.

Messrs. H. C. SHAW PLOW WORKS, Stockton, Cal.—DEAR SIR: Regarding the Triumph Spading Harrow would state that we are satisfied it is as light draft as any, and lighter than the average cultivator of its kind, and, as to its work, we think it cannot be beat. Yours truly,

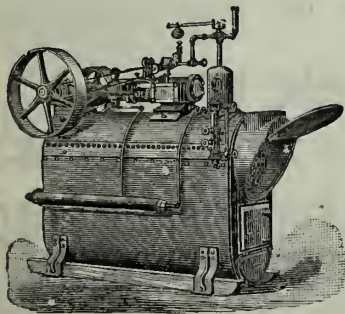
PIXLEY COMMERCIAL CO.,  
By L. E. SMITH, Secretary.

H. C. SHAW PLOW WORKS, Stockton, Cal.

Engines & Boilers

—ESPECIALLY ADAPTED FOR—

DAIRY AND FARM USE



PERFECT SAFETY ASSURED.

Strong and Reliable Steam-Driving Power  
Furnished with the Most Economical Consumption of Fuel.

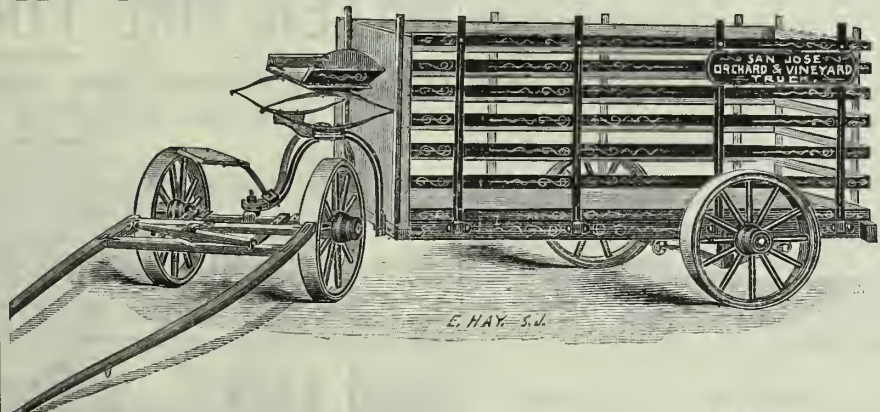
Most Improved Patterns, \*  
\* Both Upright & Horizontal.

Send for Illustrated Catalogue and Prices.

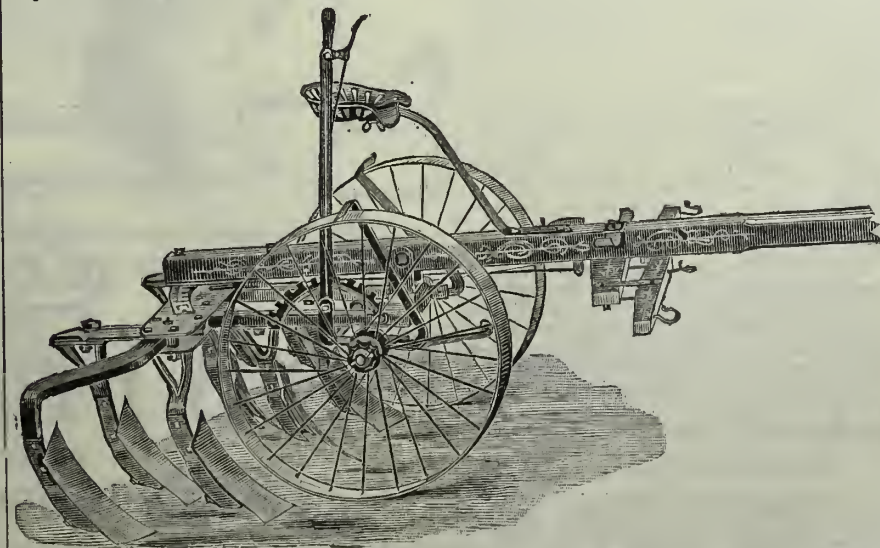
G. G. WICKSON & CO.,  
Dairy and Farm Machinery,  
3 & 5 Front St., San Francisco, Cal.,  
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THE SAN JOSE ORCHARD AND VINEYARD  
Truck and Cultivator.



Just the thing for the Orchard and Vineyard, built low, with Goose Neck in front, enabling a very short turn, low wheels, broad tire, with springs or without, built any size or capacity.



Greatly Improved, made entirely of Iron and Steel, easily handled and adjusted; teeth extend outside of wheels, in fact the Most Perfect Cultivating Tool ever put on the market.  
Write for Circulars. Address  
SAN JOSE AGRICULTURAL WORKS, San Jose, Cal.

GRANGERS' BANK

OF CALIFORNIA,  
SAN FRANCISCO, CAL.  
Incorporated April, 1874.



Authorized Capital.....\$1,000,000  
Capital paid up and Reserve Fund 800,000  
Dividends paid to Stockholders... 675,000  
OFFICERS  
A. D. LOGAN.....President  
I. C. STEELE.....Vice-President  
ALBERT MONTPELLIER.....Cashier and Manager  
FRANK McMULLEN.....Secretary  
General Banking Deposits received, Gold and Silver.  
Bills of Exchange bought and sold. Loans on wheat and country produce a specialty.  
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C. H. EVANS & CO.  
(Successors to THOMSON & EVANS),  
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RUPTURE AND PILES.  
We Positively Cure all kinds of Rupture and Rectal Diseases, no matter of how long standing, in from 30 to 60 days, without the use of KNIFE, DRAWING BLOOD, or DETENTION FROM BUSINESS. Terms: No Cure, no Pay; and no Pay until cured. If afflicted, come and see us or send stamp for pamphlet. Address:  
DRS. PORTERFIELD & LOSEY,  
888 Market Street, - - San Francisco



## DOMESTIC ECONOMY.

## Hints on Dishwashing

[Written for the RURAL PRESS by Mrs. CARRIE ROBINSON.]

In so common an operation as dishwashing there is a "best way," which if carefully insisted on will assist greatly in the labor of doing this work, and greatly add to the appearance and the safety of the table furniture:

The first requirements for this work, are two large dishpans, plenty of suitable dish-wipers and a variety of dishcloths, among which we will place the iron one, which is a collection of iron rings, for the washing of kettles, etc., and the little flat brush made of the stiff wood fibre, like the scrubbing brushes. Add to these, a bar of good soap, a package of pearlina, and when you have a good supply of water heated, you are as ready as possible to begin business.

All dishes having been once washed in the first pan, with soap and hot water should be placed right side up in the rinsing pan, and boiling water poured upon them, and immediately wiped, while as hot as can be handled, and as soon as wiped, put in their places, be it in cupboard, or returned to the table, which has been prepared for them.

The glassware, is the exception, in regard to the hot water shower bath. This should be washed first of all. The drinking glasses, should be held in the fingers one at a time, given a sideways dip, a quick roll, and each one wiped on a dry, clean linen towel at once, and it will shine like a jewel. When all are done, put away in their proper place, and all danger of accidents are avoided. Take care that you do not have too much soap in the water for the glass, as it makes it harder to wipe them, and is not called for. Other glassware should be held in the hand and the hot water applied with the dishcloth that the heat may be even. If care is taken there will seldom be breakage of even the most dainty glassware, but never set these dishes into hot water, or pour hot water into them even in the warmest day.

The same plan followed with delicate china is very wise, though this will stand a little more heat than glass; but upon this you should never pour boiling water, for china is too precious to run risks on. It does seem as though it was unnecessary to give such directions as these, but it was only one day last week that I rescued two glasses from the dishpan just as the uplifted tea-kettle was about to disgorge its contents upon them and the thermometer was below zero; yet the girl who poised the kettle was supposed to have common sense.

Silver also should be washed with very hot water and a little baking soda used instead of soap, and should be wiped very dry while hot. This will save the need of polishing often, and then a few rubs of the chamolite skin and a little whitening will accomplish what is necessary. Should silver be discolored from the use of eggs, prepared chalk will quickly remove it. A small bristle brush should always be kept at hand to clean the chasing or raised work on silver. These are prepared for the purpose, and should be kept handy in your box of whitening prepared chalk.

Wash the cups and saucers next, followed by the cleanest of the side or vegetable dishes. If plates and platters are well scraped, the need of frequent changes of water will be avoided and greater comfort secured in the operation of washing.

In preparing your wiping towels, some of them should be made of the "glass linen," so called. This is white with red or blue hars, and soft from the first. There is also a variety of crash, which is called "Russia Crash," which is pretty soft when new, and which washes easy. Don't be beguiled into buying the ordinary brown toweling for any use about dishes, for you will find it a vexation of spirit and a tiresome waiting for the stuff to "break down" to business. Rather than use this, I would take a coarse grade of cheesecloth or of unbleached cotton flannel. Always hem your dishcloths as much as the wipers, and have them washed in the weekly wash the same as other towels; if you must use a rag let it be only for the outside of the saucepans and kettles, and these burn, after, and take a fresh one. Use your fine, or "glass linen" dishcloth only on the fine dishes, replace with one made of crash, and this again when you come to the iron utensil, with one for the purpose, as the outside of these will leave stains upon the cloth that you will not want afterward in your first dish-washer. Always scald and wipe your cooking utensils, and dry them perfectly on the stove before putting them away, or you will find rust or a thin film upon them next time you use them and a reminiscence of the dinner the day before, when you dish up the second day's meal. Perfect cleanliness of cooking utensils goes far toward making the flavor of the dish. Fine and perfect fitting covers to the cooking utensils is a great facility in cooking as well as economy of fuel.

When the dinner is dished, put water into each cooking dish and put on the cover. The condensing steam will soften all the particles of food left clinging to them, and save much time, patience and temper. When haking, if a pan of good suds is set handy, when done with a dish, you drop it at once into this water, and when ready to wash your dishes, set for a few moments upon the stove to make the water suitably hot, and you will be surprised to see how much easier that dreaded job of washing up the haking dishes will be. The baking-

board should always be carefully scraped before washing. This also lessens the disagreeable work.

When all your dishes are well done, never fail to wash your dishcloths perfectly, and hang, if possible, to dry out of doors; if not, spread or hang up in good shape; never squeeze them out in a wad, and just throw into the dishpan, or stick in a wad on a nail behind the stove to sour and get musty, as I have seen done by some who thought themselves good housekeepers. If you have not in abundance of dish-wipers, wash and scald these also, and hang out of doors to dry; but I think so great an economy of time and labor to have plenty of these, that none will neglect it, and it is hard to wash them properly in the small way one must in a dishpan. As haking the stove is one of the things which naturally comes at the same time, or following the washing of the dishes, let me urge that for this purpose you have the proper brushes—a large, coarse paint-brush to lay the blacking on with, and the very best fiber brush you can obtain, with a handle like a scrubbing-brush, or rub the blacking "down" with. With these you will be able to keep your hands from contact with the blacking. Be sure to hake your stove before you wash out your dishcloths, as this operation will probably remove what blacking may have been intrusive enough to have crept around your finger-nails.

Immediately after the dish-washing is the proper time for the cleaning of the lamps, which should be done with the greatest care, as a large portion of the comfort of the family depends on good light in the evening. The chimneys, if smoked, should first be brushed out with the ordinary swab-brush, or lacking this, one made by tying short strips of thick cotton cloth on a stick until a little mop is made; use this dry, then hold the chimney over the steam of the tea-kettle, and wipe dry with a clean cloth. Old sheets and pillow-cases make excellent chimney towels. Clean all the chimneys first, then take your lamps where if you spill a little oil it will do no harm, or set them on a newspaper, remove the burners with the wicks from the lamps, and fill all the lamps, then put the oil away, return your burners to the lamps and screw down tight. Make a point of this, as serious accidents have happened from a little carelessness at this point; turn the wicks up so that the burner part is even with top edge of the brass cap, and trim perfectly with sharp shears. I emphasize sharp because it is too frequently the case that the shears devoted to the lamps are dull as a hoe, and to try to make a clean cut with these is out of the question—a little thread left, or a crook in edge of the wick will spoil the flame, and prove an annoyance for a whole evening to the one who uses it, if it does not break a chimney before bed-time. When you have the wicks perfectly trimmed, be sure to turn the wicks down below the top of the tube which holds the wick. By doing this you avoid the probability of finding your lamps dripping with oil when you take them down to light for the evening's use. If the wicks are left above the top of this tube, it will draw the oil from the lamp and distribute it over the outside.

Now, girls, you cannot be too particular about lamps. If you have gentlemen callers, for instance, in the evening, and your room is not well lighted, you may be sure it will be noted, and whether you think it or no, you will be held accountable; I know a lady whose "fortune," so to speak, came from the fact of her always having her lamps well trimmed, which first attracted the attention of a very "eligible party," who from this first good impression, pursued her acquaintance, and at length married.

## TO SUCCEED IN THE DAIRY.

Good cows are essential. Perfect cleanliness is necessary. But nothing is of greater importance than the use of a good color. Wells, Richardson & Co.'s Improved is guaranteed the strongest and most natural. It has been improved recently, and is now far ahead of all other colors. The largest butter buyers urge their customers to use this color, for it is sweet, pure, and its use can never be detected.

Don't allow your dealer to sell you any butter color but Wells, Richardson & Co.'s Improved. Tell him the size is what you want and you must have the Improved. It excels in strength, purity and brightness, never turns rancid, always gives a natural June color, and will not color the butter milk. Thousands of the best creameries and dairies use it.

PAPER HORSESHOES.—There seems to be a great interest in seeking for the best material out of which to make horseshoes. The latest application is paper, which, it is said, will never become smooth or slippery. The shoe, it is said, is simply glued to the foot by some substance which is not affected by water. The shoe is cut out of a plate of papier mache, made as solid as metal by great hydraulic pressure.

## MAPLE GROVE STOCK FARM.

L. W. Green, Indianapolis, Ill., writes: "Send me one more bottle Quinn's Ointment. It does more than represented." For Cuts, Splints, Spavins, Windpuffs, Bunches, unequalled. Trial box, 25 cents, silver or stamps. Regular size, \$1.50 delivered. Address W. B. Eddy & Co., Whitehall, N. Y.

To make paper stick to a wall that has been whitewashed, wash the wall with vinegar water.

Use "Dead Lock" Gopher Traps. They are the best. See advertisement in this paper.

## TO SHIPPERS!

## California Ventilated Barrel

EXCELS ALL OTHERS!

IT IS LIGHTER, STRONGER, MORE DURABLE AND BETTER VENTILATED THAN ANY OTHER BARREL.



This engraving of the CALIFORNIA VENTILATED BARREL makes plain to the practical shipper its points of superiority over the common barrel, which may be enumerated as follows:

It weighs from five to seven pounds less than the ordinary barrel, making a material saving in freight charges.

It costs less than one-half for trimming, and does not require an experienced hand to cooper it.

It is the only thoroughly ventilated barrel made, a very important point.

The heads are warranted not to come out in transit, and no liners are required.

It is stronger and more durable than any other barrel. Never varies in size, even to the extent of a quart.

— ALTOGETHER MAKING IT —

The Cheapest and Best Barrel on the Market.

It is Made of the Best Quality of Spruce, Woven Together with Copper Wire, And can be furnished in any size desired.

THE CALIFORNIA BARREL IS ADAPTED TO SHIPPING THE FOLLOWING ARTICLES:

Apples,  
Oranges,  
Onions,  
Potatoes,

Sweet Potatoes,  
Dried Meats,  
Bottled Goods,

Glassware,  
Canned Meats,  
Crockery,

Eggs,  
Poultry,  
Walnuts,  
Almonds,

And Vegetables of All Descriptions.

A factory making these barrels is now in operation in San Francisco, with a capacity of 4000 barrels a day. The success of the barrel is almost unprecedented, and it is bound to become the package in a very short time. EVERY ONE USING IT IS ENTHUSIASTIC IN ITS PRAISE. IT HASN'T A FAULT. When shipped in knock-down form, about 2500 barrels can be placed in a single car. Special rates given on car lots. WRITE FOR PRICES AND PARTICULARS.

## California Ventilated Barrel Co.,

No. 403 MARKET STREET, - - - SAN FRANCISCO, CAL.

FACTORY: N. W. Cor. Powell and North Point Streets.

## WATER PIPE FOR SALE CHEAP.

LAP-WELDED WROUGHT IRON TUBING, COUPLED WITH LEAD-LINED COUPLINGS, ASPHALTUM DIPPED, READY TO LAY.

We have on hand and can deliver with dispatch the following quantities of this form, viz:

10,000 FT. 3" DIA. INS.	100,000 FT. 2" DIA. INS.	25,000 FT. 3" DIA. INS.
20,000 " 3" " "	100,000 " 2 1/2" " "	25,000 " 3 1/2" " "
100,000 " 3 1/2" " "	25,000 " 2 3/4" " "	20,000 " 3 3/4" " "

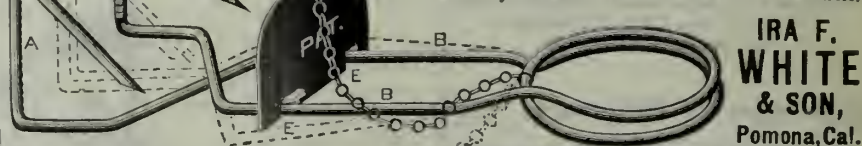
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## Dead Lock Gopher and Mole Trap.

ASK FOR IT. USE NO OTHER.

The "Dead Lock" is the LATEST and BEST single trap on the market. By reversing trigger can adjust TRAP TO HOLE, NOT HOLE TO TRAP. Notched and pointed jaws prevent any squirming out. Any child can set it. No soldered joints to loosen and be repaired. Can regulate distance between jaws and trigger. Price, postpaid, 25c, or \$3 per dozen delivered. Special club rates. Show this cut to your dealer or send direct to sole manufacturers:



IRA F. WHITE & SON,  
Pomona, Cal.

## SPECIAL!

## P. &amp; B. Fruit Papers

(PATENTED.)

ESPECIALLY ADAPTED FOR FRUIT DRYING.

No need of expensive wooden trays. No need of turning fruit. Costs much less than any other method. SAMPLES AND CIRCULARS FREE.

## PARAFFINE PAINT COMPANY,

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# STOCKTON COMBINED HARVESTER AND AGRICULTURAL WORKS,

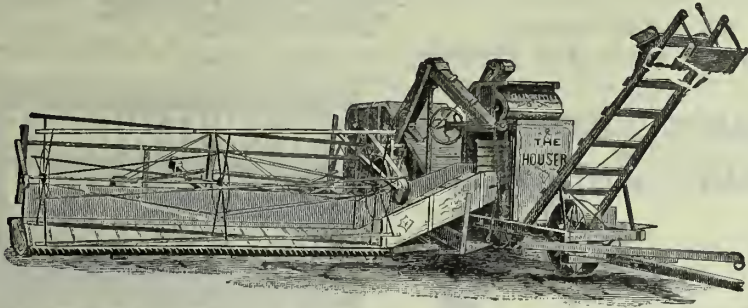
— MANUFACTURERS OF —

## COMBINED HARVESTERS—CHAIN, BELT OR GEAR.

The Houser Belt Combined Header and Thresher  
IS OUR STANDARD MAKE.

THE BEST KNOWN AND MOST POPULAR MACHINE ON THE COAST.

It is Lighter Draft than any Other Make of Combined Harvesters.



WE USE FOR AN EXTRA CLEANER,

THE STAR DOUBLE SHOE CLEANER.

THE ONLY SUCCESSFUL HARVESTER CLEANER MADE.

THRESHING MACHINES OF GREATER CLEANING CAPACITY THAN ANY OTHER MACHINE ON THE COAST.

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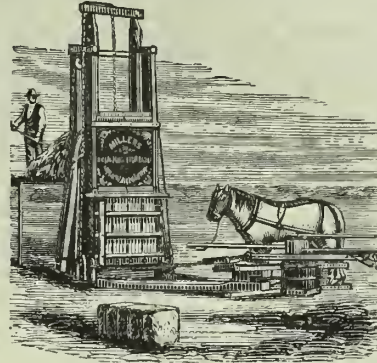
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REQUIRES  
BUT  
FOUR MEN  
AND  
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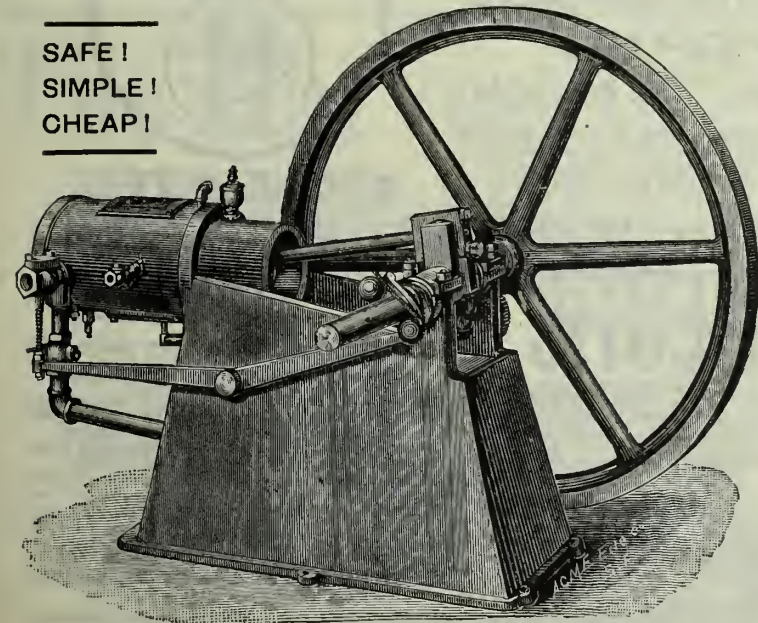
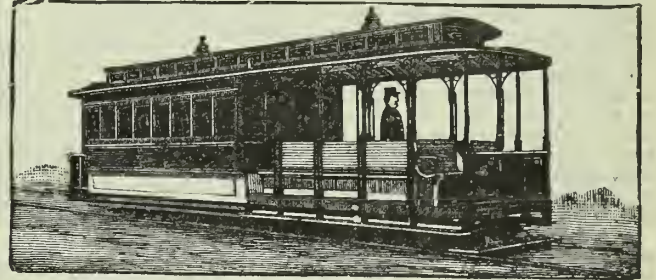


CAPACITY  
30 TONS  
PER DAY.  
CAN PUT  
10 TONS  
IN A CAR.

## CARS OF EVERY DESCRIPTION.

STEAM,  
ELECTRIC, CABLE,  
AND HORSE.

PASSENGER,  
BAGGAGE,  
AND FREIGHT  
CARS.



SAFE!  
SIMPLE!  
CHEAP!

## REGAN VAPOR ENGINE.

NO BOILER, FIRE, EXPLOSION, STEAM,  
ASHES OR ENGINEER.

Started Instantly Without Even a Match. Will Run on Natural or Manufactured Gas or Gasoline. The Moment Engine Ceases to Run, all Expense Stops.

Upright and Horizontal, Stationary and Marine Engines from 3-4 Horse Power, Upward.

Our Engines are especially adapted for Pumping and Irrigating and Spraying Fruit Trees; in fact, for any use where power is required.

OVER 400 IN USE.

POPE & TALBOT, LUMBER, Office, 204 California Street, }  
SAN FRANCISCO, Feb. 25th, 1890. }

REGAN VAPOR ENGINE Co.—Gentlemen: The 4 H. P. Vapor Engine I bought of you last May has been in constant use ever since, and has given me entire satisfaction. I have found the engine to be all that you claimed for it, and more too. You can use my name for reference if you so desire. I am, yours truly,

H. TALBOT.

We Carry Thos. Kane & Co's Famous Racine Launches, fitted with our New Compound Engines.

Send for Circular.

REGAN VAPOR ENGINE CO.,

221-223 First Street, San Francisco, Cal.

## CELEBRATED RELIEF WIND MILL.



RELIABLE!  
EFFICIENT!  
DURABLE!

Over 5000 in Use!

IT COMBINES SIMPLICITY  
AND STRENGTH!

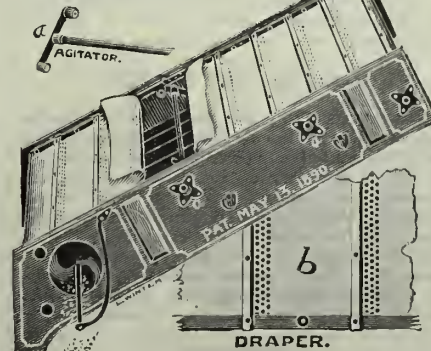
It is used for County work by the Supervisors of Merced, Stanislaus and San Joaquin Counties.

Our Irrigating Wind Mills of large size, with 20 to 30 foot wheels, manufactured to order. Deep-Well Abbott Pumps, Tanks, Casks, Spring Towers, Water Troughs and Irrigating Outfits. Send for Our Circular.

RELIEF WIND MILL CO.,  
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Near Railroad Depot.

## GRAIN SAVER.



## NO MORE WHEAT WASTED

## THE PERFECT GRAIN SAVER

For Combined Harvesters.

No Need of Wasting Grain.  
No Need of Scattering Foul Seed over the Ground.  
No Need of Choking Machine with Green Weeds.  
Impossible to Blow Grain Over.  
As they must be made to fit each machine, please write at once.

J. E. BEACH, Routiers, Cal.

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Home Mutual Insurance Company,  
216 Sansome Street, San Francisco.  
INCORPORATED A. D. 1864.

Losses Paid Since Organization.....\$3,175,759 21  
Assets, January 1, 1891.....867,512 19  
Capital Paid Up in Gold.....300,000 00  
NET SURPLUS over everything.....278,901 10

## HOME INDUSTRY

If you buy  
Mohr & Yoerk's  
CANNED (COOKED) CORN BEEF

You will get the best and at the same time benefit the producer.  
Also manufacturers of BONE DUST.



## THE FIELD.

## Cotton in California.

That the owners of the California Cotton Mills at Twenty-third avenue have spent several thousand dollars and a great deal of energy trying to induce the farmers of California to grow cotton is a fact not universally known, but nevertheless it is a fact. The degree of success of their efforts was ascertained by an Enquirer reporter in an interview with William Rutherford, superintendent of the cotton mills.

Mr. Rutherford said that they were now using a small amount of California-grown cotton in the manufacture of a certain class of articles. Its use is not large, from the mere fact that it is not grown extensively and consequently cannot be obtained.

Realizing that the best quality of cotton can be grown successfully in California, as has been determined by experiments, the California Cotton Mills made a persistent effort to interest the farmers of California in the raising of the useful product. Thousands of pamphlets were printed, which were sent to all who contemplated trying cotton as a crop, or who might be induced to give it a trial. One pamphlet on "Cotton versus Wheat" showed the advantage to the individual and to the state from the production of cotton. The other treated on "Cotton Culture in California," and gave explicit directions for the growth of the plant.

In addition to issuing these pamphlets, tons of seed were distributed gratis to all the farmers who applied. Seed has been distributed, and is distributed yet, to farmers all over California, but Mr. Rutherford does not believe the results justify the effort, and he has few hopes of ever seeing California become one of the cotton-raising States of the Union.

Superintendent Rutherford is receiving most of his California-grown cotton from the southern part of the State. The largest plantations are in San Bernardino county, and the largest growers are G. A. Chandler, Lea K. Mball and Crawford. The combined cotton crop of California is but a drop in a bucket compared to the enormous consumption of the California Cotton Mills, but Mr. Rutherford pronounces the California-grown cotton of the very finest quality. Requests for seeds and instructions are received by Mr. Rutherford daily from all parts of the State. A number of communications are received from farmers in San Mateo county and elsewhere, asking for seed and expressing the belief that cotton can be grown there with great profit.

The large amount of cotton consumed yearly at the California Cotton Mills comes principally from Texas, India and Tahiti. From the latter place is obtained the best sea island cotton grown in the world.

That cotton can be grown to advantage and with great profit, and that the lands of California are peculiarly adapted to its growth is shown in the pamphlet on "Cotton vs. Wheat," issued by the California Cotton Mills. Under the head of "The importance of cotton culture to Texas," it says:

"The cotton crop of Texas this year, 1889, shows a great increase over that of any previous one, and it is generally admitted cannot fall far short of 2,000,000 bales of 500 pounds each, worth, if we include seed, \$100,000,000, a sum which is equal in amount to the value of all the wheat, barley, fruit, wine, lumber, gold and silver produced in California last year. This vast crop is raised on less than 4,000,000 acres of land; an area not much greater than twice that of Colusa county. To move this crop of cotton it would require 1660 trains of 30 loaded cars each, and to carry the seed to the oil mills would require 100,000 cars, loaded 10 tons to the car, a quantity of seed equal in weight to the entire average surplus wheat crop of California. Texas is not more thickly populated than California, and yet little difficulty is experienced in harvesting this immense cotton crop. Such a showing for one staple product cannot fail to tell on the material prosperity of the people. The people of Texas owe but a small amount of mortgage indebtedness, only \$20,000,000. Let the farmers of California give these facts and figures due consideration, and this question of cotton culture that attention it deserves, and it cannot fail in beneficial results to all concerned.

"There are vast tracks of land in California, much of it almost unoccupied, capable of producing cotton equal to anything grown in Texas."—Oakland Enquirer.

## The Stanford University.

Dr. Jordan has completed his arrangements for the appointment of the Faculty for the Stanford University, and has made the following names public:

Dr. Andrew White, ex-president of Cornell University, to be non-resident professor of history.

F. Stanford, Lake Forest University, associate professor of physics.

Horace B. Gile, Washington University, St. Louis, professor of mechanical engineering.

Professor Joseph Swain, Indiana University, associate professor of mathematics.

Douglas H. Campbell, Indiana University, associate professor of botany.

## THE DAIRY.

## Calf Rearing.

Prof. W. A. Henry gives the *Live Stock Gazette* the following notes on raising calves for milking cows or beef:

On the range of course the calves run with the cows, and there the question is a simple one. Upon the cheaper farming lands of the West a good cow by a little careful management will bring up two or three calves, and where labor is high this is probably as economical a system as any. Farther east, where lands are assessed at high figures and where the art of butter-making is well understood, few farmers can be found who are willing to follow the simpler methods of the West. In such districts, if the calf lives on full milk for a few weeks it may thank its lucky stars while reveling in that luxury. The common practice is to wean the calf as soon as it has relieved the mother of the colostrum milk, that is, within two or three days from the time it is dropped. When taken from the mother place the calf where it is quiet, and where the mother cannot hear it "bleat." Do not attempt to feed until it is hungry, when it usually can be readily taught to drink milk by use of the fingers in the mouth. Much of the trouble of breaking calves to drink comes from trying to feed them when they are not hungry. If a calf will not soon learn to drink the milk better get it out of the way at once, for such animals are usually unsatisfactory later on. Start with full milk, taking care to have it of the natural warmth and not feeding too much. Two quarts three times a day are ample for the beginning, increasing gradually. After two or three weeks substitute sweet skim-milk for part of the full milk, and gradually make the change. Calves can be reared entirely upon skim-milk after they are three weeks old, and grown into fine dairy animals.

The greatest trouble in using skim-milk is that it is fed in excessive amounts, being considered cheap food and being fed cold. We must not expect a calf to thrive that drinks several quarts of cold milk two or three times a day. The feeder should use a thermometer and warm the milk to 100 degrees; this is easiest done by pouring in sufficient very hot water to raise the temperature the required amount. A better way is to use the hot water in making a gruel of a little oil-oake and then pouring in the milk. A tablespoonful of oil-oake made into gruel each meal per calf is ample to start with, increasing according to the requirements and age of the animal.

Scorning is the common trouble with feeding skim milk. This is due to feeding too much, feeding too cold, or feeding at irregular periods. As soon as detected reduce the amount of feed at once, putting the animal on short rations. If the trouble continues, give strong coffee or use parched flour or eggs. If possible at once move the patient to other quarters. The change is often a great benefit. Avoid the trouble by carefully regulating the amount of feed, giving the milk at blood heat and at regular periods. Place an inverted sod where the calf can get its nose into the fresh earth and eat what it wants.

Teach the calves early to eat grain by placing a handful of whole or ground oats in the mouth immediately after it is through drinking at the pail and when it is eager for something to suck. At first it will spit out the oats, but after a few days it will begin to chew them, when a handful may be placed in the feeding box. Place no more feed before the calf than it will eat up clean soon after being fed. Great care should be taken that nothing remain over from one feed to another to be tainted and rendered unpalatable. But very little feed will be consumed at first, and only a very small amount should be given.

Under the system I have described grade Jersey calves usually gain with us a pound and a half a day. We have pure-bred Jerseys and Shorthorns that have gained two pounds a day for a considerable period.

After suffering horribly for years from scrofula in its worst form, a young son of Mr. R. L. King, 706 Franklin St., Richmond, Va., was recently cured by the use of Ayer's Sarsaparilla. No other medicine can approach this preparation as a cleanser of the blood.

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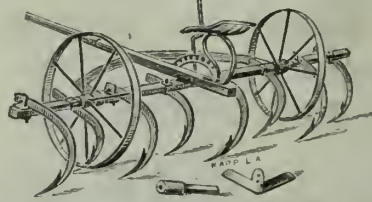
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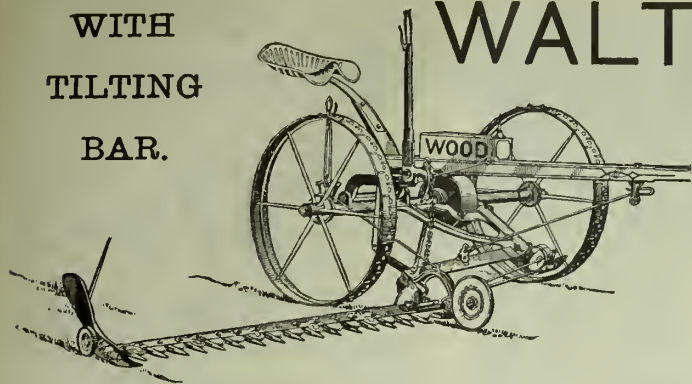
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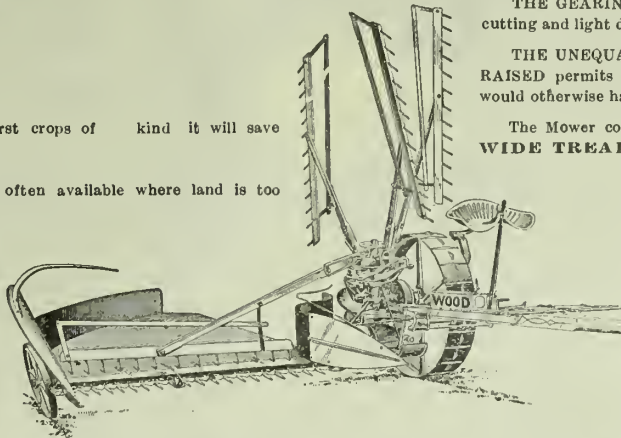


This Reaper is not only effective in good standing grain, but in the worst crops of kind it will save where other reapers cannot work.

Is the lightest-weight Reaper in the world, yet the strongest, and is often available where land is too rough for others.

The broad sweep of the rakes delivers the grain so well that men can bind after it better and faster than after many other side-delivery reapers.

The driver has perfect command of the machine without turning his head from the team. With the levers he can adjust the height of the machine or tilt it to any angle independently or regulate the size of the gavel by setting a lever.



LIGHT ENCLOSED GEAR REAPER.

THE GEARING is compactly enclosed in a dust-proof box and has the motion for heavy cutting and light draft.

THE UNEQUALLED HEIGHT TO WHICH THE BAR AND DROOP FRAME CAN BE RAISED permits passing obstacles, whether under the bar or between the wheels, which would otherwise have to be driven around.

The Mower combines Great Strength with Lightness of Draft. **HIGH WHEELS, WIDE TREAD, IMPROVED PITMAN.**

LIVERMORE, CAL., April 22, 1889.

FRANK BROTHERS, San Francisco:—We sold a Mower to-day to a man who had three acres of fox tail and clover that he couldn't cut with a mower. He had to back up and clean out every 50 yards, so gave it up and came to town looking for some one to give him a mower on trial, on condition that if the mower did the work he would buy it; so we took a 4 ft. 3 in. Wood's, and put his team that only weighed 1800 pounds together, and they cut it as easy as though they were going on the road. While cutting it there were several farmers on the ground, and they all said the "Wood's" was the Boss, and the lightness of draft beat them, for they thought there was no machine that would cut the fox tail. I have sold six different kinds of machines and I must say that the "Wood's" beats them in every respect.

N. D. DUTCHER.

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THREE SIZES: 8-FOOT, 10-FOOT AND 12-FOOT.

OPERATED BY ANY ONE WHO CAN DRIVE.

The Walter A. Wood Rake is both a self-dump and a hand-dump, though generally operated as a self-dump. A light touch of either foot of the driver causes it to dump and resume raking without noise or jar and without skipping any hay.

Steel Wheels of the Best Design ever used on a Rake. Steel Axles.

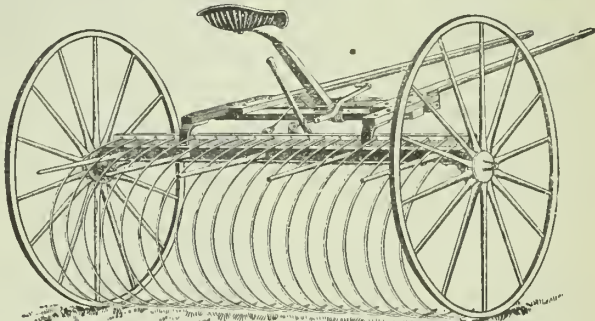
The Rake is strong, free from dead-lock, neck-galling, side-jerk, dirt-scratching and liability to breakage. If desired, an attachment is furnished so the shafts on this 8 foot Rake can be quickly changed to a pole for using the mower team in place of bringing out a single horse. Seat is instantly changeable to accommodate a man or child.

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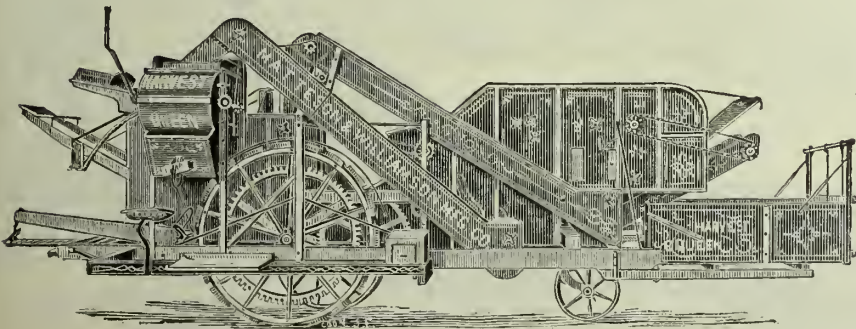
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SECOND—All of the frame work about this cylinder is the best of oak lined with sheet steel and put on with screws. Other parts built of the best of material and painted inside and out.  
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FIFTH—The machine is so geared that the cleaner, separator or header can be started independently of each other.  
SIXTH—The header is portable. By the use of our supplemental truck we can pass a 16-foot header through a 12-foot gate.  
SEVENTH—The shaftings are all made of steel.

SIZES, 10 TO 16 FEET.

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With all our Machines we furnish Straw Dump and Header Truck separate from Machine. Machines delivered on board cars or boat.

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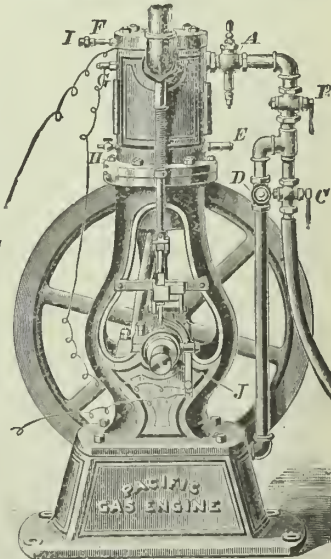
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Jas. Budd, Stockton.....2-H. P., Pumping  
Santa Ana Free Press, Santa Ana.....2-H. P., Printing  
Merced Land & Fruit Co., Merced.....2-H. P., Pumping  
Donahoe, Knmons & Co., Reedley.....2-H. P., Pumping  
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Fresno Fair Ground Association.....4-H. P., Pumping  
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For Sale Cheap—Four Regan Vapor  
Engines.

PACIFIC GAS ENGINE CO.,  
230 FREMONT STREET, SAN FRANCISCO  
Send for Circular and Price List.



## Death of Dr. O. C. Wheeler.

On Thursday, April 16th, there died in Oakland, Rev. Osgood Olinch Wheeler, D. D., L. L. D., probably one of the best known, personally and by reputation, pioneers of this State. His long residence in California and the many beneficent enterprises which marked his unselfish, active life endeared him to all classes, and made his name a household word.

He was born in the township of Walcott (now Butler), Wayne Co., N. Y., on March 13, 1816, being the tenth of a family of twelve children. His early educational opportunities were exceedingly limited, but on leaving home at the age of 21, he resolved to make it his first business to obtain the most thorough education the schools could afford, which was certainly a daring aim considering the fact that he had but 37½ cents in money and one suit of clothes, and was suffering from ill health. That he made good his resolution is evidenced by the fact that he worked his way through an eight-year course at Madison University, graduating with high honors from both the college proper and the theological seminary, and was married and settled as a pastor before the age of 30.

Mr. Wheeler's first pastorate was at East Greenwich, Rhode Island, where he was ordained and became the first pastor of the Baptist Church in that town. He was very successful here, remaining until called to a larger field of labor in Jersey City, and while at the latter place he was requested by the Baptist Home Missionary Society to go as its pioneer missionary to California. He yielded to this call upon his energies after some reluctance, and on the first day of December, 1848, left New York on the steamer Falcon bound for Yerba Buena. This was three days before the publication of the fact that gold had been discovered.

He arrived at the Chagres river in 19 days, thence to Cruces in a dug-out, thence to Panama on a mule and thence to San Francisco on the steamer California, arriving there February 23, 1849. Dr. Wheeler, after a brief survey, arranged to hold religious services and organize a Sunday-school in the dwelling of C. L. Ross, there being at that time no church edifice in San Francisco. When the hour arrived for Sunday-school, but one child put in an appearance—the little son of the late Gov. Geary of Pennsylvania. For four Sundays there was the solitary pupil and two teachers, and finally Mr. Ross advised the abandonment of the attempt, especially as there were only about half a dozen people who attended the sermons. Dr. Wheeler persisted, however, and in a few weeks he had organized a church of six members; and in July, 1849, he bought a lot on Washington street for \$10,000, cleared off the chaparral and, being himself possessed of no little skill as a mechanic, commenced with his own hands the erection of the first Protestant church in California, which he completed and dedicated in 22 working days. The structure was 50 feet in length by 30 in width, framed of 3x4 scantlings, with 12 posts and covered with cast-off sails of vessels that had been abandoned in the harbor. It cost \$6000.

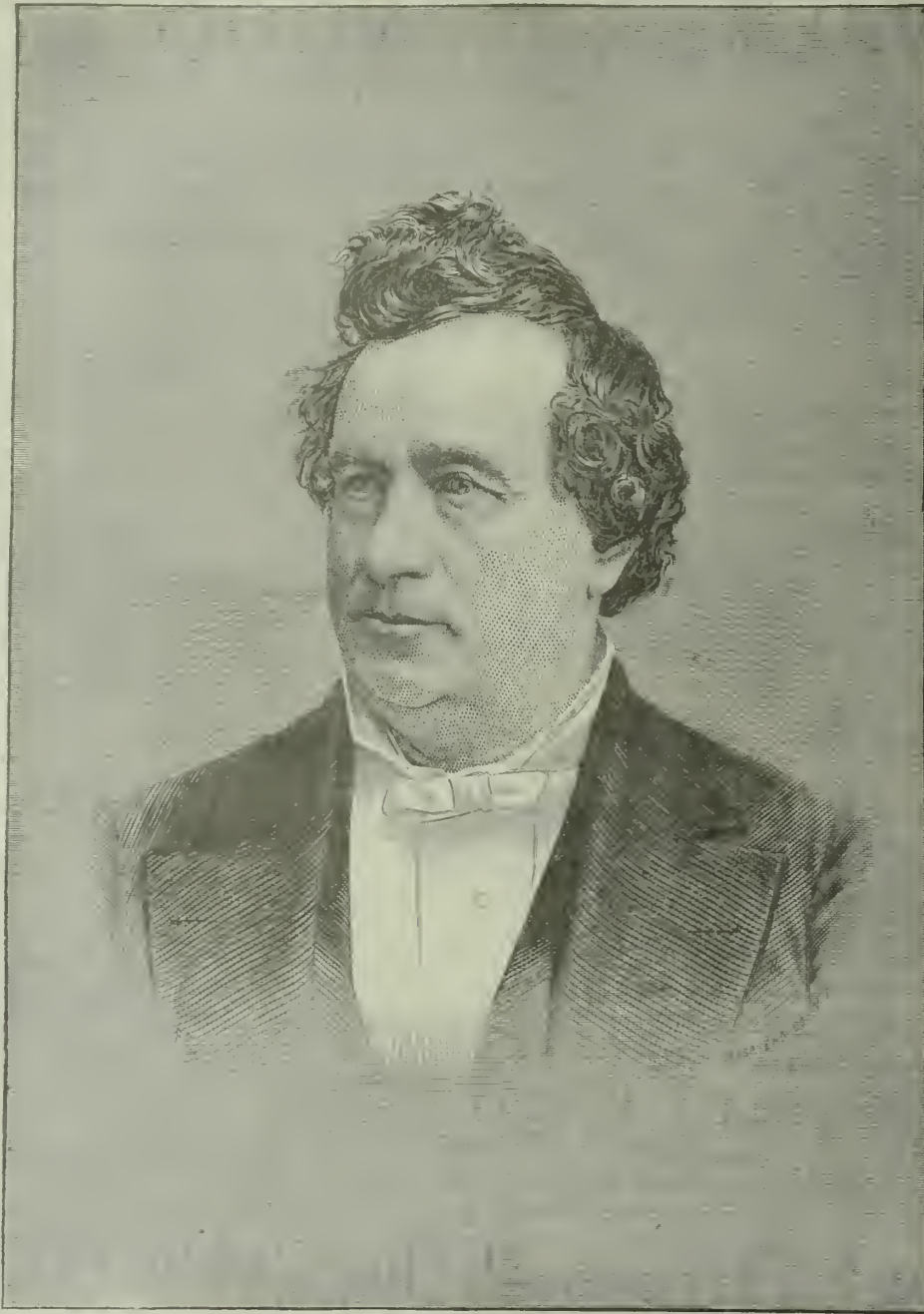
At the request of Mr. John C. Pelton, a Massachusetts teacher of experience, Dr. Wheeler donated the free use of the church for a school, and there was started the first public school on the Pacific Coast.

During the summer and autumn large numbers of Colonel Stevenson's volunteers and others were taken seriously ill, but found careful nurses in the doctor and his wife. In recognition of these services Col. Stevenson subsequently presented him with a letter of thanks and a handsome gold watch and chain.

Dr. Wheeler, from a stand erected in the plaza, delivered the first Fourth of July oration ever delivered upon the soil of California. Thousands gathered to hear him, and the effort gave such satisfaction that it was printed at the public expense, and is still looked upon as one of the gems of California oratory. His fame as a speaker spread, and he was called upon on every occasion to display his talent.

In 1852 he removed to Sacramento where he took charge of the church and edited the first religious paper of his denomination on the coast, his first year's experience costing him \$3000. In 1854 he was elected secretary of the State Agricultural Society, and again in 1856.

In 1863 he was appointed unexpectedly Collector of Internal Revenue for the Fourth California District, and while engaged in that work he was called upon to go to San Francisco to take charge of the United States Sanitary Commission on this coast. Within ten months he had organized 375 "Soldiers' Aid Societies," and from these sources had collected and forwarded to the Commission in New York \$197,000.



THE LATE DR. O. C. WHEELER.

In 1869 his wife died, and this so prostrated him that for a time his own life was despaired of, but he finally regained his health and in 1871 he accepted the invitation of the Central Pacific Railroad Company to organize and build up their work in the baggage department and achieved great success.

In April, 1871, Dr. Wheeler married his second wife, Miss Ellen R. Frisbie of Quincy, Ill.

Dr. Wheeler early identified himself with the Masonic order, passing through all the departments, including those of Knights Templar and the "Egyptian Masonic Rite of Memphis," 95 degrees, and appointed in nearly all "stations" and "chairs."

In May, 1879, California College conferred upon him, in view of his eminent learning and ability in the department of theology, the honorary degree of D. D., and in July of the same year the University of Jackson, Tenn., conferred on him the honorary degree of LL. D.

In mental labor he was a man of wonderful endurance, and after office hours and work he was regularly in his library from 7 to 12 P. M., working often 16 hours a day. He was very thorough in research, as shown in his lectures on "Music," "Libraries," "Masonry," etc.

As a manager he was respected by those from whom he exerted the most rigid compliance with his rules, while as a presiding officer he was noted for his promptness, decision and urbanity.

In the temperance field Dr. Wheeler was always an active worker, and held many of the highest positions in the organizations to which he belonged.

**MATCH-MAKING MACHINERY.**—Ingenious machines for the various operations of manufacturing matches have been in use in Scandinavia for some time, and more are expected. Machines for packing the matches have recently been introduced, one of these—the invention of two young Norwegian engineers—having a capacity of 1000 boxes per minute.

**HOW THE MUSKRAT BREATHES UNDER ICE.**—Animals that breathe by means of lungs can prolong their stay under water only through special anatomical arrangements, or by having recourse to some extraneous means. Mr. W. Spoon of the Elsieha Mitchell Society, who has hunted the muskrat in winter, asserts that the animal, when obliged to traverse, under ice, a

pond so wide that it cannot keep up its breathing, stops from time to time and exhales the air from its lungs. This air, being confined by the ice, becomes oxygenated in contact with the water, and the animal, taking a fresh inspiration, dives in order to begin its swimming again a little further along. It appears that other observers have found that if this air is dispersed through the ice being struck, the animal is killed through asphyxia.

## THE STOCK YARD.

## Law Creating a Lien for Services of a Sire.

**SECTION 1.** Any owner or person having in charge a stallion, jack, or bull, used for propagating purposes, shall have a lien for the agreed price for the service of such stallion, jack, or bull, upon any mare or cow served for pay by any such stallion, jack, or bull, and upon the offspring of such service; provided, that the owner or person having in charge such stallion, jack, or bull, shall, within 90 days after such service, file in the office of the County Recorder of the county where such mare or cow is served or kept, a verified claim containing a particular description of the mare or cow so served, the date and place of serving, the name of the owner or reputed owner of the mare or cow so served, a proper description, by name or otherwise, of the stallion, or jack, or bull, performing such service, the name of the owner or person in charge thereof, and the amount of the lien claimed, which claim, when filed as aforesaid, shall operate as notice to subsequent purchasers and incumbrancers of such mare or cow, for the term of one year from the date of the filing of such claim; and provided, that any willfully false representations concerning the breeding or pedigree of such stallion, jack, or bull, made or published by the owner or person in charge of such stallion, jack, or bull, or by any one else at the request or instigation of such owner or person in charge, shall invalidate any lien claimed under or by virtue of the provisions of this Act.

**SEC. 2.** Suit to foreclose any lien created hereunder may be brought in any county where said mare, cow, or offspring from such service may be found, and the plaintiff, at the time of issuing summons, or at any time afterward

prior to the rendition of judgment therein, may have the mare or cow upon which said lien subsists, and the said offspring, attached as further security for the payment of any judgment he may recover, unless the defendant or person in possession of such mare, cow, or offspring, give him good and sufficient security to pay such judgment, in which event the mare, cow, or offspring shall be forthwith discharged by the Sheriff from such attachment and from the lien hereunder created.

**SEC. 3.** The Clerk of the Court must issue the writ of attachment upon receiving an affidavit by or on behalf of the plaintiff, showing:

*First*—That the defendant is indebted to the plaintiff upon a demand for services rendered by the stallion, jack, or bull, belonging to or under charge of plaintiff, upon the mare or cow of defendant, for which his claim has been duly filed, in accordance with Sec. 1 of this Act.

*Second*—That the sum for which the attachment is asked is an actual bona fide existing debt, due and owing from the defendant to the plaintiff, and that the attachment is not sought, and the action is not prosecuted to hinder, delay, or defraud any creditor or creditors of the defendant.

**SEC. 4.** The writ must be directed to the Sheriff of the county in which suit is brought, and must require him to attach the mare or cow specified in such lien, and the offspring of such service, unless the defendant or person in possession of such mare, cow, or offspring, give good and sufficient security, as provided in this Act, in which case, to take such security and discharge any attachment he may have made, and to deliver up such mare, cow, or offspring, to defendant, or to the person from whom he has taken the same, who shall receive the same free from the lien upon which such suit is brought.

**SEC. 5.** Sections five hundred and thirty-nine, eleven hundred and eighty-nine, and eleven hundred and ninety-eight, and eleven hundred and ninety-nine of the Code of Civil Procedure are hereby made applicable to this Act.

**SEC. 6.** This Act shall take effect from and after its passage.

## The Law Fixing a Bounty on Coyote Scalps

**SECTION 1.** Any person who shall kill and destroy any coyote or coyotes, in any county of this State, after the passage of this Act, shall be paid a bounty of five dollars, out of the general fund in the State Treasury, for each coyote so destroyed.

**SEC. 2.** Any person who may kill and destroy a coyote as provided in the last section, may go before any person authorized to administer oaths, and present the scalp, containing the ears and nose of the coyote destroyed, to such officer and make and subscribe to an affidavit showing the time and place that such animal was killed, which scalp and affidavit may be deposited with the clerk of the Board of Supervisors of the county in which such coyote was killed.

**SEC. 3.** The Board of Supervisors of each county of the State shall, quarterly, determine the number of scalps deposited with the Clerk of such Board during the preceding quarter, and by whom, and shall give to each person who may have deposited scalps a certificate certified by its clerk, showing the number of scalps deposited by such person and the sum due him at the rate of five dollars for each scalp. Such certificate may be presented to the Controller of State, who may draw his warrant on the general fund in the State Treasury for the sum named therein in favor of the person entitled thereto.

**SEC. 4.** When the certificate named in the last section is directed to be drawn, the Board of Supervisors shall, at the same time, cause the scalps to be destroyed by fire.

**SEC. 5.** No bounty shall be paid for any scalp unless presented within three months after the coyote is killed.

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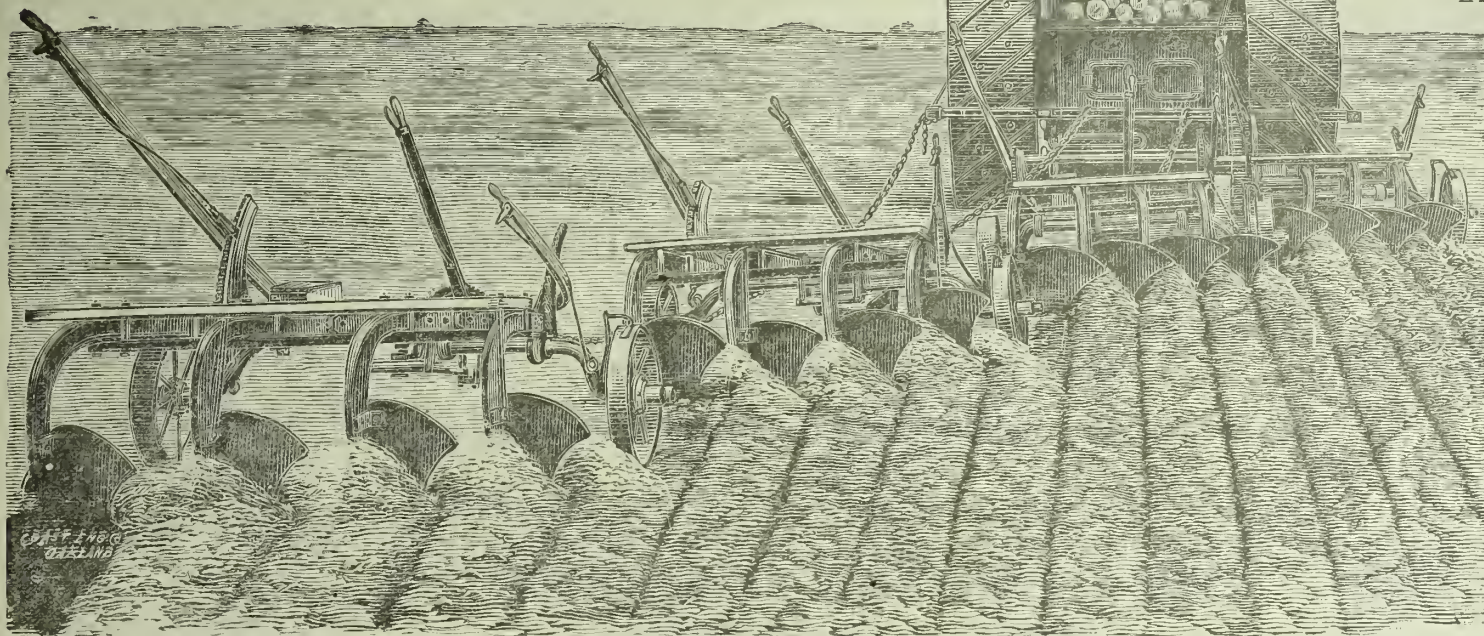


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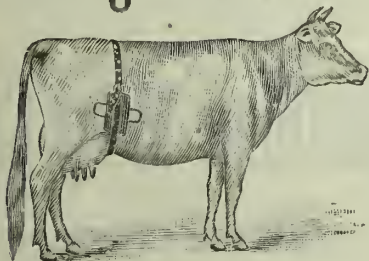
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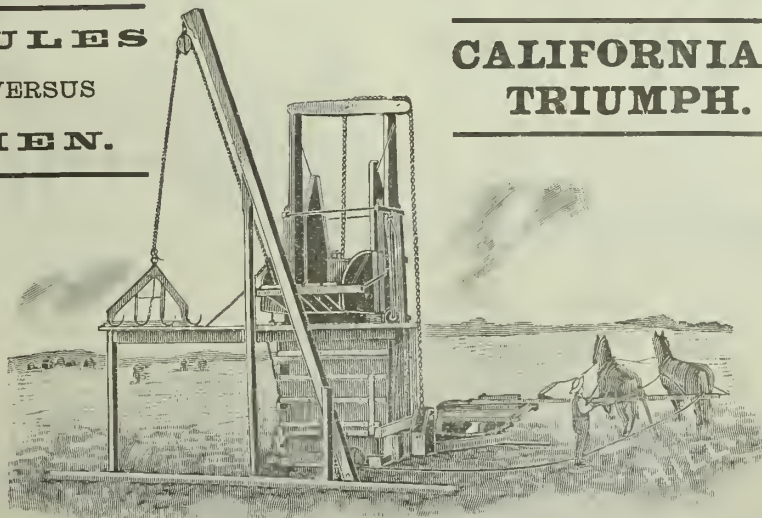
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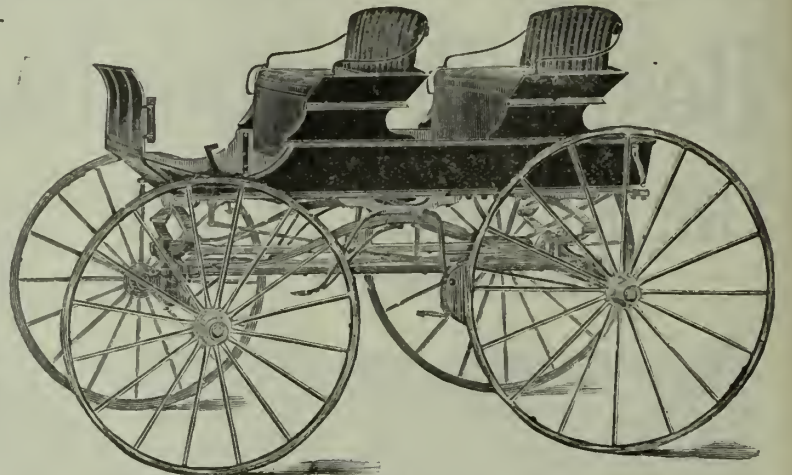


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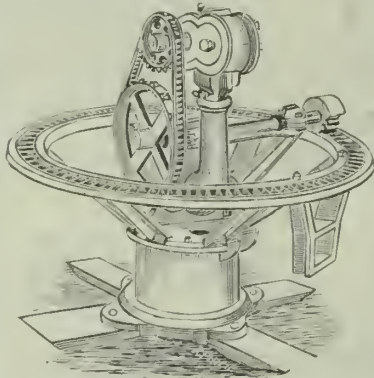
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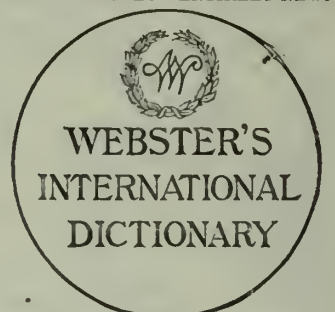
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(Furnished for publication in this paper by officer in charge of branch Signal office, Division of the Pacific.)

DATE. April 15-21.	Olympia.				Portland.				Eureka.				Red Bluff.				Sacramento.				S. Francisco.				Fresno.				Keeler.				Los Angeles.				San Diego.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
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EXPLANATION. Cl. for clear; Cy., cloudy; Fr., fair; Cm., calm; - indicates too small to measure. Temperature wind and weather at 5 P. M. (Pacific Standard time) with amount of rainfall in the preceding 24 hours. T indicates trace of rainfall. P C, partly cloudy. Rn., rain.

## Organization of Olive Oil Producers.

A meeting of olive-oil producers and manufacturers, called by the State Board of Horticulture, was held at Horticultural Rooms, Sutter street, April 16th. Frank A. Kimball of National City called the meeting to order, J. L. Mosher acting as secretary.

By request, Mr. Kimball stated the object of the gathering. In his judgment, the time has arrived for olive-oil producers to protect themselves. A statute has just been enacted of a protective nature, but it is not all as it should be. There is no fear of competition among genuine producers if oils put on the market are thoroughly known. Some scheme to result in a test by scientific men of all oils, and the filing at headquarters of the exact value of labels, with a clear explanation of analyses, was contemplated in the general idea of organization. The commercial value of all oils must be determined, and if this is properly done there is no fear of the judgment of a discriminating public, and spurious oils will be run out of the market. A San Diego merchant lately was offered oil by a runner at \$6.50 a case, but after close investigation the agent admitted his belief that there was not one per cent of pure oil in the article offered.

Secretary Lelong, of the State Board of Horticulture, explained details of the protective bill lately passed by the Legislature. It provides that adulterators of oil shall be prosecuted, and all producers shall send samples of oil in bottles or tins to State Board headquarters, and also samples of all labels. The bill was much more specific when first submitted, but it was amended to its present form in legislative committees.

Mr. Cooper said he had found great difficulty in disposing of his oil in this city unless he would agree to its sale at a price which would be prohibitory. His output this past year is over 28,000 large bottles. Oil, which is made in the cellars of this city, is offered as a substitute for the pure oil.

Mr. Wetmore said, emphatically, that the best grocers' trade in this city is opposed to the proper encouragement of first-class products of agriculture. The Cooper oil and some of the best brands can be obtained at few places in the city. The State Analyst and the State Board of Health should aid the pure-oil producers. Good oil has the greatest medicinal value. Infants that cannot take other sustenance will thrive on pure oil. Precisely what tests shall be deemed sufficient and how they are to be determined must be considered. To organize and have an oil-distributing agency in this city would be a good plan.

E. D. Sawyer thought a reduced price of California-made oils would be more helpful than anything else. The Sunday law was recited as an instance of inoperative and ineffective legislation. Pure oil and low prices will result necessarily in ready sales; native oil can never compete with imported unless prices are made equal. If oil-producers try the fraud prosecuting method they must fail in the end, for the merchants have more money than the producers.

Messrs. Cooper, Goodrich, Wetmore, Kimball and Lelong were appointed a committee to select permanent officers and formulate a plan of organization.

This committee, at a meeting held the following morning, submitted the following plan of organization:

That an association be formed, the leading object of which shall be to establish in the city of San Francisco, a depot where the olive oil approved by the association may be seen and sampled; where information may be procured as to place of production, quantity, price, where sold, etc., especially with a view of influencing the local retail trade to sell those brands without prejudice or misrepresentation; such agency also to be especially organized for the purpose of disseminating to the public, information concerning the dietetic and hygienic therapeutic values of pure olive oils, and collate and preserve records of individual experience of general information on the subject.

That the membership shall be confined to those having olive orchards and producing olive oil at those orchards for the market, to be sold under their own trademark.

That the first list of invitations for membership shall be first considered by the committee and unanimously adopted before being issued.

That further membership shall be on application in writing, and signed by two members

of the organization, and elected by ballot by a three-fourths vote of all the membership of the association.

That in carrying out this plan, no attempt will be made to interfere with the legitimate trade any further than is necessary to carry out the purpose already set forth.

That a committee be appointed to confer with the State Analyst, the State Board of Health, and the State Board of Trade with regard to securing their aid in the enforcement of the law against the adulteration of olive oil, and to report at the next meeting of this committee.

## TEXTILE INDUSTRIES.

## A Ramie Meeting at Yuba City.

EDITORS PRESS:—The Sutter County Horticultural Society had a regular meeting in Yuba City April 15th, and much interest in fruit-culture was manifested. Several new members were elected, after which the following officers for the ensuing year were placed in nomination and elected: President, R. C. Kells; vice-president, A. D. Cutts, secretary, Hon. H. P. Stahler; treasurer, G. W. Carpenter; entomologist, H. P. Stahler.

After the election, a paper on Ramie Culture was read by the superintendent of ramie culture for California, that was of interest to all—both ladies and farmers—present, after which a committee was named to introduce the ramie plant in this part of the State. M. Marouse, H. Hawes, J. C. Geary, J. G. Jones, Hon. H. P. Stahler, the secretary, were named as a committee to look up the matter referred to.

We learn that a large acreage will be planted this season in ramie in Sutter and Yuba counties.

## Prominent Ranches.

The Marouse ranch, located 13½ miles from Knight's landing, and 14 miles from Marysville, is one of the best improved California ranches that your correspondent has had the pleasure of visiting for some years, by invitation of Mr. M. Marouse, an old pioneer merchant of Marysville, and one of her most enterprising and progressive farmers. What was seen may be of interest to your readers. The ranch is a large tract, of 2460 acres, all under cultivation, being located on the Woodland and Marysville Branch R. R. The managers of the railroad have located a station at this point, also Wells, Fargo & Co. an express office, postoffice, and large grain warehouses will be built this season; new scales for weighing the grain—all showing improvements in the right direction. We are fully warranted in saying all this is justified, as this station is bound to be a go-ahead section of the valley.

The ranch has 1920 acres in wheat, and over 30,000 sacks of wheat are expected; also 320 acres in barley; a total of 1240 acres in grain, the remainder made up in diversified farming products, fruit trees, grapes, all varieties of vegetables, several acres peanuts are being planted on the sandy soil near the Feather river. A sample of wheat, "The Pride of Butte," will be sent to you to show the wonderful production of the soil. The wheat was planted Dec 15, 1890 and April 16th, the stand was four feet, six inches in height, good wide leaves. We have not noticed better grain in any of the fields from Tulare City to Marysville. Several acres of ramie will be planted in the above-named ranch, the soil and climate being peculiarly adapted to the growth of the stalk.

The next large ranch adjoining this Marouse plantation visited is known as "White Horse Ranch." Prominently can be seen for miles away a large white horse, fine harnes and out houses surrounded by green fields of waving grain. This is located on Feather river opposite Nicolans, in Sutter county, and steamers come up to this point for freight. The property is Hon. N. D. Rideout's, the prominent banker at Marysville, Cal., he being a practical farmer and an old pioneer. Here we find 2000 acres all in cultivation surrounded by a high levee. Mr. W. F. Mason is the resident superintendent, and is, we learn, a most practical and progressive farmer.

It will be remembered that N. D. Rideout Esq., commenced to build the railroad in 1888 finished only a few months since, that opens up railroad communication to Knight's Landing on the Sacramento river from Marysville.

## The President's Program.

The following is the official program, which has received the sanction of President Harrison, through his private secretary:

Saturday, April 25th—Arrive in San Francisco at 7:45 P. M.; will be received by the military and escorted to Mechanics' Pavilion by most direct route; public reception at Pavilion for two hours. The ladies of the party will take carriages at the ferry and go direct to the Palace hotel, instead of the Pavilion.

Sunday, April 26th—Rest.

Monday, April 27th—Leave hotel at 10 A. M., and drive to the Park to be met by the school children; lunch at the Cliff House; return to hotel via Presidio; 9 P. M., official invitation reception in first-floor parlors of Palace hotel.

Tuesday, April 28th—Take steamer in morning for tour of the bay, stopping at military posts; on return to Union Iron Works, to participate in launch of warship Monterey at 4:30 P. M.; evening, dinner with Senator Stanford.

Wednesday, April 29th—Leave San Francisco 9 A. M., for Menlo Park; visit Leland Stanford Jr., University and Palo Alto stock farm; lunch with Senator Stanford; leave Menlo Park at 3 P. M., and arrive at San Jose at 3:30; reception till 5; leave for Monterey and arrive at Del Monte at 7 P. M.

Thursday, April 30th—Spend all day at Hotel del Monte and vicinity.

Friday, May 1st—Leave Monterey 9 A. M.; stop at San Jose five minutes; continue to San Francisco, via Niles, arriving at 12:15; after lunch at Palace hotel, proceed to Mechanics' Pavilion, escorted by G. A. R., to witness children's May-day festivities, to be followed by a reception to comrades of G. A. R.; evening, banquet by representative business men of San Francisco.

Saturday, May 2d—Leave San Francisco at 12:15 A. M.; arrive at Sacramento at 4 A. M.; citizens' reception at Capitol from 8 to 10 A. M.; leave Sacramento at 10 A. M.; arrive at Broadway, Oakland, at 1 P. M.; reception by citizens and school children; leave Broadway at 4:15 P. M. and arrive at San Francisco at 5 P. M.; Saturday night, rest.

Sunday, May 3d—Rest.

Monday, May 4th—Leave San Francisco 12:15 A. M. for the north.

## QUERIES AND REPLIES.

## Cement Cisterns.

EDITORS PRESS:—Can any of your readers inform me of any cisterns being made in this State by putting the cement directly on the walls of the soil; that is, without lining the same with brick or stone. I have seen many so made in the East and want to know if any one has tried them here.—J. G. WRIGHT, Berkeley.

Cisterns and reservoirs are thus made in this State. Will readers report methods and results?

## Planting Pink Beans.

EDITORS PRESS:—Can you, or any of your readers, inform me as to the proper time to plant pink beans. It is a pretty hot climate here, and I think when planted too early the heat strikes them just in bloom. Please inform me or have some experienced bean-raiser give the necessary information.—ANDREW REID, Bryson, Monterey Co.

The subject is one upon which experience can be profitably compared. We await reports from "experienced bean-raisers."

DAIRYING IN CALIFORNIA.—The illustrated article in the May *Overland Monthly* is to be a continuation of "Dairying in California," this time treating of butter and cheese making. The processes are described at length, and many valuable and surprising facts and figures are given relating to the magnitude and development of the industry. The pictures are very beautiful and show the most attractive side of dairying in California.

KILLIP & Co. announces that the date of the sale of Henry Pierce's trotting and road horses has been changed from Saturday, May 2d, to Tuesday, May 5th, at 1 P. M. By reference to the advertisement it will be seen that the offering includes several well-known blooded animals.

DANIEL DEWEY, an old settler in Wisconsin, died at Berlin, in that State, on the 11th, of "grippe," at the age of 84 years.

## A New Enterprise.

## The California Ventilated Barrel Company.

This company has recently established a plant in this city for the purpose of manufacturing the *Ventilated Barrel* upon a large scale. The enterprise bids fair to be of more than common interest, both to the producers and the shippers of fruits, vegetables, nuts, meats, etc. A package for the safe conveyance of these leading products, presenting so many advantages, such as cheapness, lightness, thorough ventilation, simplicity, durability and strength, cannot fail to be quickly recognized by the wide-awake business men of this coast, and as speedily adopted. That such is the case is proven by the rapid increase in the demand since starting the works in January, 1891, books for that month showing sales of between nine and ten hundred, February fifteen hundred, March, two thousand, while the sales for April, to the 25th, have risen to nearly four thousand. These gratifying results are as good evidence as need be furnished that the Ventilated Barrel supplies a want and fulfills all the claims that are made for it. The extensive works of the company are situated at the corner of Powell and North Point streets, on the water front. They consist of a substantial three-story structure, covering a ground space of 60x72 feet, with an annex, or warehouse, 30x72 feet. Here, upon a recent visit, a representative of the PRESS found a scene of activity that indicated lively business. Wagons were unloading the spruce strips of which the barrels are made, while other wagons were being loaded with the finished barrels for distribution or shipment to various points. The cheerful whir and buzz of machinery was heard within, and upon entering, the reporter was met by the energetic manager, Mr. James Patterson Jr., who kindly furnished the information sought. "Our present capacity," said Mr. Patterson, "is about 4000 barrels per day. We are well equipped with machinery built expressly for the work, for instance," pointing to one of the many rapidly moving pieces of intricate mechanism at which two men were busily employed, "that machine receives the strips, cutting them to the proper length, at the same time weaves, crosses and chimes them ready for the hoops and heads.

They are then passed to other hands where they are drawn around the spreader or inside hoop, three-eighths of an inch thick, and fastened. Still another set of workmen spring on the outside or end hoops, putting the heads in place, and the barrel is complete. The process is rapid and looks simple. This is largely due to the perfect system which prevails throughout the factory. "Our standard sizes," continued Mr. Patterson, "for nuts, vegetables, fruits, eggs, etc., are 19x30, 16x27½, 16½x28½, 17½x29, 18½x30; for hams and dry salt meats we make them 22x32 and 24x34. However, we are prepared to fill any order for odd sizes. The barrel has been adopted by the United States Government for the carriage of potatoes and onions, and our sales thus far bear proof that it has met with a flattering reception by private shippers. We ship the barrels either set up or knocked down. When in the latter condition a workman will be sent to put them together, and to show how simply it is done. We will also supply the necessary tools for the purpose.

When shipped in this form, we can place about 2500 barrels in a single car. Arrangements have been made for the erection of another large building adjoining the warehouse which will be completed soon, and our working force, which now numbers from 15 to 20 men, will be increased as the requirements of the business make it necessary."

A side from being the only thoroughly ventilated barrel on the market, other strong points in its favor are, that it costs less than one-half for trimming, and does not require a skilled workman to cooper it; its heads will not come out in transit, and no liners are used. It is strong, durable, and the sizes do not vary; and an important feature, by no means to be overlooked, is its extreme lightness, which effects a saving in freight charges, that shippers will not be slow to appreciate.

The California Ventilated Barrel Company was incorporated in November, 1890, and is composed of the following named gentlemen, well known, and prominent in business circles: A. Hamilton, President; E. A. Denicke, vice-President; Wm. Clark, Secretary; James Patterson Jr., Manager; T. J. Parsons, Pres. and Mgr. of the Del Monte Milling Company; P. A. Wagner, Mgr. of the Judson Mfg. Co.; E. B. Grace, Agt. for the Dold Packing Co. of Kansas City; Asa M. Simpson, Pres. of the Simpson Lumber Co. and T. H. Miner.

The general office of the company is at No. 403 Market street. Circulars will be sent upon request.

DEWEY & CO  
PATENT  
SOLICITORS.  
220 MARKET ST. S.F.  
ELEVATOR 12 FRONT ST. S.F.



## Breeders' Directory.

Six lines or less in this Directory at 50c per line per month.

## HORSES AND CATTLE.

P. H. MURPHY, Perkins, Sac. Co., Cal., Importer and Breeder of Shorthorn Cattle and Poland China Hogs.

M. D. BOPKINS, Petaluma, importer and dealer in Eastern registered Shorthorns, Red Polled Cattle, Holsteins, Devons and Shropshire Sheep.

PETER SAXE &amp; SON, Lick House, San Francisco, Cal. Importers and Breeders, for past 21 years, of every variety of Cattle, Horses, Sheep and Hogs.

PERRIN STANTON, Sacramento, Cal., Importer and Breeder of Registered A. J. C. Jersey Cattle of the Best Strains. Stock for sale.

J. R. ROSE, Lakeville, Sonoma Co., Cal., breeder of Thoroughbred Devons, Roadsters and Draft Horses.

P. PETERSEN, Sites, Colusa Co., Importer and Breeder of registered Shorthorn Cattle. Young bulls for sale.

WILD FLOWER STOCK FARM, Fresno Co. A. Heilbron &amp; Bro., Props., Sac. Breeders of thoroughbred strains of Cattle, Shropshire Sheep, also Registered Herefords; a fine lot of young bulls in each herd for sale.

CHARLES E. HUMBERT, Cloverdale, Cal., Importer and Breeder of Recorded Holstein-Friesian Cattle. Catalogues on application.

PERCHERON HORSES.—Pure bred horses and mares, all ages, and guaranteed breeders, for sale at my ranch near Lakeport, Lake Co., Cal. New catalogue now ready. Wm. B. Collier.

WILLIAM NILES, Los Angeles, Cal. Thoroughbred Registered Holstein and Jersey Cattle. None better.

T. PHILLIPS, Simi, Ventura Co., Cal. Pure Bred Percheron Horses for sale.

COTATE RANCH BREEDING FARM, Page's Station, S. F. &amp; N. P. R. R. P. O., Penn's Grove, Sonoma Co., Cal. Wilfred Page, Manager. Breeders of Short Horn Cattle, English Draft Horses, Spanish Merino Sheep and Berkshire Swine.

PURE-BRED HOLSTEIN FRIESIAN Cattle for Sale. Bonnie Brae Cattle Co., Hollister, Cal.

JOHN LYNCH, Petaluma, breeder of thoroughbred Shorthorns. Young stock for sale.

J. H. WHITE, Lakeville, Sonoma Co., Cal., breeder of Registered Holstein Cattle.

## POULTRY.

CALIFORNIA POULTRY FARM, Stockton, Cal.; send for illustrated and descriptive catalogue, free.

R. G. HEAD, Napa, Importer and Breeder of Land and Water Fowls. Send for New Catalogue.

DELLWOOD POULTRY YARDS, Napa; Thoroughbred Fowls; Eggs \$2 per 13, \$5 per 39.

MADISON H. CRITCHER, Bonnie Doon, Santa Cruz Co., Cal. Thoroughbred Poultry. Settlings, \$3.

JOHN McFARLING, 706 Twelfth St., Oakland, Cal., Importer and Breeder of Choice Poultry. Send for Circular. Thoroughbred Berkshire Pigs.

IF YOU KEEP ANY KIND OF FOWLS, Pet Stock, Dogs, &amp;c., it will pay you to send your address at once to C. R. Harker, Santa Clara, Cal. You cannot afford not to do it. It will cost you but one cent and you will receive something worth ten times that.

GALT POULTRY YARDS, Galt, Sac. Co., Cal. Breed most popular varieties of thoroughbred fowls.

O. J. ALBEE, Lawrence, Cal. Pure bred poultry.

## SHEEP AND GOATS.

L. U. SHIPPEE, Stockton, Cal., Importer and breeder of Spanish Merino Sheep, Durham Cattle, Jacks and Jennys &amp; Berkshire Swine high graded rams for sale.

FRANK BULLARD, Woodland, Cal., Importer and breeder of thoroughbred Spanish Merino Sheep. Premium band of the State. Choice rams and ewes for sale.

J. B. HOYT, Bird's Landing, Cal., Importer and Breeder of Shropshire Sheep; also breeds Cross bred Merino and Shropshire Sheep. Rams for sale.

E. W. WOOLSEY &amp; SON, Fulton, Cal., importers &amp; breeders Spanish Merino Sheep; ewes &amp; rams for sale.

R. H. CRANE, Petaluma, Cal., breeder and importer. South Down Sheep from Illinois and England for sale.

KIRKPATRICK &amp; WHITTAKER, Knight's Ferry, Cal., breeders of Merino Sheep. Rams for sale.

ANDREW SMITH, Redwood City, Cal.; see adv't.

## SWINE

DELLWOOD, Napa; Thoroughbred Berkshire Pigs.

JOSEPH MELVIN, Davisville, Cal., Breeder of Poland-China Hogs.

WILLIAM NILES, Los Angeles, Cal. Thoroughbred Poland-China and Berkshire Pigs. Circulars free.

TYLER BEACH, San Jose, Cal., breeder of Thoroughbred Berkshire and Essex Hogs.

ANDREW SMITH, Redwood City, Cal.; see adv't.

## FOR SALE,

## Half-Breed Norman Stallion

NINE YEARS OLD; WEIGHT, 1750; PRICE, \$300. Can be seen at Thalman's Ranch, Pinole, Contra Costa County, Cal.

BADEN FARM HERD.  
Short Horn Cattle and Draft Horses.Catalogues and Prices on application to  
ROBERT ASHBURNER,  
Baden Station, - San Mateo Co., Cal.

## HAGGIN HORSE SALE! THOROUGHbred JACKS!



## Annual Spring Sale

—OF—

## 200 HEAD

Road, Harness, Work and Draft Horses,  
And Shetland Ponies,

From the Ranch of J. B. HAGGIN, Esq.,

—WILL TAKE PLACE AT—

SAN FRANCISCO, on Thursday, May 14, 1891.

Precise location of sale in future advertisement. Catalogues now in preparation.

KILLIP & CO., Live Stock Auctioneers,  
22 MONTGOMERY STREET, SAN FRANCISCO.

## KILLIP &amp; CO.

—WILL SELL AT—

## PUBLIC AUCTION

—FOR ACCOUNT—

HENRY PIERCE, ESQ.,

—AT 12 M. AT—

## OAKLAND TROTting PARK

On Tuesday, May 5, 1891.

—ABOUT—

## Forty Head Trotting and Road Horses,

Including Young Stallions by DIRECTOR, ANTEVOLO, GUY WILKES, STEINWAY, MAMBRINO WILKES, WOODNUT, ABBOTSFORD, ALONZO HAYWARD and GRAND MOOR.

ALSO, Mares in foal or with colts by their side, by BAY ROSE, and Fillies by the above-named Stallions.

Catalogues giving full description and pedigrees are being prepared.

KILLIP & CO., Live Stock Auctioneers,  
22 MONTGOMERY STREET, SAN FRANCISCO, CAL.ANDREW SMITH,  
IMPORTER AND BREEDER OF THOROUGHbred  
(RECORDED)

DISHFACED BERKSHIRE PIGS,

IMPROVED POLAND-CHINA PIGS,

SHROPSHIRE DOWN SHEEP,

Young Stock for sale at reasonable prices. Every animal guaranteed.

OFFICE—218 California St., San Francisco.

REDWOOD CITY, CAL.



## GARDEN CITY INCUBATOR.

Send for Catalogue of

THE ONLY INCUBATOR THAT DOES AWAY WITH ALL LAMPS OR AUTOMATIC GOVERNING APPARATUS.

THE HATCH CO., - - SAN JOSE, CAL.

Dealers in Everything for Poultrymen.

MANHATTAN  
STOCK FOOD

Saves One-Quarter of Grain Feed.

FRAUDULENT PARTIES have been selling an article, claiming theirs to be the same, and, in order to mislead, have added a prefix to "Manhattan." Our genuine food is called simple "Manhattan Food," with the Red Ball Brand.

623 Howard St., San Francisco, Cal.

## PURE

TRUMBULL, STREAN & ALLEN  
SEED CO.,  
Grass, Field, Garden and Tree Seeds, Onion Sets, Etc.  
Send for Catalogue. Mailed Free.  
1428-1429 St. Louis Ave., KANSAS CITY, MO.

## SEEDS

DEWEY & CO. { 220 MARKET ST., S. F. } PATENT AGENTS.  
Elevator, 12 Front.

A FEW MAGNIFICENT JACKS BRED FROM THE finest strains of blood from Kentucky. Correspondence solicited. L. U. SHIPPEE, Stockton, Cal.

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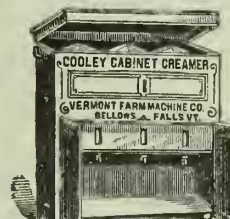
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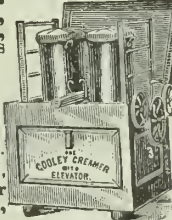
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## S. H. MARKET REPORT

## Market Review.

## DOMESTIC PRODUCE, ETC.

SAN FRANCISCO, April 22, 1891.

General trade in farm products the past week has been fairly active, with cereals making quite an up move. The local money market is easy, with more funds offering than can be readily placed. The promised large crops of cereals, if realized, will require large sums to move, and with such a contingency, it is said that the banks are shaping their course accordingly. The European and Eastern wheat markets have advanced very materially. The following is to-day's cablegram:

LIVERPOOL, April 22.—Wheat—Quiet but steady. California spot lots, 8s 11½d; off coast, 46s; just shipped, 46s 6d; nearly due, 46s; cargoes off coast, nothing offering; on passage, quieter; Mark Lane wheat, turn dearer.

## Foreign Grain Review.

LONDON, April 20.—Mark Lane Express, says: English wheat continues in sellers' favor; foreign active during the week, there were large sales at a rise of 6d. Barley is in demand at an advance of 1s. Oats are 6d higher. For Maize there was an increased inquiry at an advance of 1½d; trade is realizing big profits. At to-day's market the London average for English Wheat was 39s 4d, while 43s 6d was paid for good reds and 45s 6d for good whites; foreign was higher for reds and 1s 6d for whites. Flour went up 1s 6d. Maize was strong and advanced 2s 6d being quoted at 31½s.

## Liverpool Wheat Market.

The following are the closing prices paid for wheat options per cwt. for the past week:

	April.	May.	June.	July.	Aug.	Sept.
Thursday.....	8s7d	8s7d	8s7d	8s6d	8s6d	8s6d
Friday.....	8s7d	8s8d	8s8d	8s8d	8s8d	8s8d
Saturday.....	8s7d	8s8d	8s8d	8s9d	8s9d	8s9d
Monday.....	8s8d	8s9d	8s10d	8s10d	8s10d	8s11d
Tuesday.....	8s11d	9s0d	9s0d	9s1d	9s1d	9s1d

The following are the prices for California cargoes for off coast, nearly due and prompt shipments for the past week:

	O. C.	P. S.	N. D.	Market.
Thursday.....	43s0d	43s0d	43s0d	Strong.
Friday.....	43s0d	43s6d	43s6d	Very strong.
Saturday.....	44s0d	44s3d	44s3d	Excited.
Monday.....	44s0d	45s0d	45s0d	Very strong.
Tuesday.....	45s0d	46s0d	46s0d	Excited.

## Eastern Grain Markets.

The following shows the closing prices of wheat at New York for the past week, per cental:

	Day.	April.	May.	June.	July.	Aug.	Sept.
Thursday.....	194	190	183	180	179		
Friday.....	200	196	191	185			
Saturday.....	203	198	194	187			
Monday.....	203	203	198	190			
Tuesday.....	207	202	197	188			

The closing prices for wheat have been as follows at Chicago for the past week, per cental:

	Day.	May.	June.	July.	Aug.
Thursday.....	180			176	
Friday.....	184			181	
Saturday.....	187			183	
Monday.....	191			187	
Tuesday.....	188			186	

NEW YORK, April 22.—Wheat—\$1.22½ for May, \$1.20 for June, \$1.17½ for July, \$1.13 for August, \$1.10½ for September, and \$1.11½ for December.

CHICAGO, April 22.—Wheat—\$1.11½ for May and \$1.09½ for July.

## Visible Supply of Grain.

NEW YORK, April 20.—The visible supply of grain in store and afloat, as compiled by the New York Produce Exchange, is as follows: Wheat, 22,186,000 bushels, a decrease of 211,000 bushels; corn, 2,230,000 bushels, a decrease of 100,000; oats, 2,508,000 bushels, a decrease of 85,000; barley, 811,000 bushels, a decrease of 129,000.

## Dried Fruits.

NEW YORK, April 18.—Another week's drain upon raisins will materially remove the gloom that has been so long oppressive in them. Apricots are a trifle better, prime and better selling at 15¢@16¢. Peaches, regarded well, sold at 12¢. An encouraging grocery demand attended raisins. Brisk trade in Forty prunes, which is tempting the price of 10¢. Must be sound and black; other sizes neglected.

## Hops.

NEW YORK, April 18.—Fair local demand for hops. Some export orders. Selected quality filled numerous small interior sales. Spot strong. The rumored large movement in olds did not go, though London is stiffer.

## California Raisins.

NEW YORK, April 20.—A fair quantity of California raisins was moved in this market the past week. It would appear that the aggregate movement into channels of distribution has been better than for some time previous. This improvement has been attended by a slight turn for the better in values. Sales were chiefly at \$1.30@1.40 for ordinary quality of Three-Crown loose, in boxes; \$1.45 was secured for good, little better than the average. Three-Crown, loose, in bags, brought 5½¢ and that price is said to have been offered Saturday for the carload.

## Wool.

NEW YORK, April 20.—Though not openly confessed, there is a softer tone to the wool market consequent upon this attendance and an effort to regain some of the demand that has dealt freely in Australia. This is true of fleeced, but the few holders of commercial lines of unwashed good staple territory show no promise to sell. Not much Texas shearing is expected before the middle of May. In goods fine fall dress fabrics and blankets sell well; few other orders. Sales, 411,000 lbs domestic, mostly private; old ranges made for the rest, and 700,000 lbs foreign, chiefly China and Douskie. From London sales 3000 bales in all, taken for America. An English woolen manufacturing firm is seeking a new English site. Philadelphia market dull, but light supplies in strong bands. Boston's sales were 1,871,200 lbs domestic; California, no feature in sale or supply; 400,000 of foreign of which 150,000 lbs were Australians.

## Local Markets.

	Buyer Season.	Seller 1891.	Buyer 1891.
Thursday.....	144½	139½	104½
Friday.....	145½	145	106½
Saturday.....	145	145	108½
Monday.....	146½	146½	112
Tuesday.....	151½	118½	112½

\*After August.

## WHEAT.

	Buyer 1891.	Buyer Season.	Seller 1891.
Thursday.....	166½	171½	170
Friday.....	167½	173½	172½
Saturday.....	167½	173½	173½
Monday.....	168½	175½	175½
Tuesday.....	177½	181½	179½
	188	191½	189½
	180	188½	187½

\*After August.

BAGS—The market is essentially unchanged at 7½¢ to 7½¢ for June-July delivery.

BARLEY—The sample market has held to strong and higher figures under a fair demand and light receipts. On Call, dealings in futures have been quite active at steadily advancing prices up to today, when a shade lower range is recorded. The following are to-day's reported sales:

Morning Session: Seller 1891—100 tons, \$1.09½; 100, \$1.08½; 100, \$1.07½. Afternoon Session: Seller 1891—200 tons, \$1.08½; 100, \$1.07½.

BUTTER—The market is weak at lower quotations. With receipts increasing, packers are trying to get further reductions in prices. Large lines of butter, it is claimed, can be bought for less money than we quote. The outlet is restricted.

CHEESE—The market is easier, with stocks accumulating and receipts increasing. Buyers confine purchases under the belief that lower prices will obtain.

EGGS—Although receipts do not show any material increase, yet by reason of increased local supplies throughout the coast, the outlet is restricted, consequently fewer are required by the trade.

FLOUR—The market has made several advances the past week, closing strong.

WHEAT—In the sample market trading is almost suspended, causing accurate quotations to be hard to get. Nearly all holders of wheat are those who sold on Call. Very little, if any, is now held by farmers. On Call, futures have been actively dealt in at higher prices, and attractive fluctuations. Many short sellers were forced to fill or compromise at heavy losses. It is said that there is still a large line of shorts out which, if so, may cause prices to go still higher. The following are to-day's reported sales on Call:

Morning Session: Spot, season's storage paid—500 tons, \$1.80. Buyer 1891—100 tons, \$1.80½; 100, \$1.80. Buyer season—200 tons, \$1.80½. Buyer 1891, after August 1st—300 tons, \$1.78; 200, \$1.77½; 700, \$1.77½; 200, \$1.77; 100, \$1.76½; 100, \$1.76; 200, \$1.75½. August-September—100 tons, \$1.68. Seller 1891—100 tons, \$1.69; 200, \$1.68½; 100, \$1.68½; 200, \$1.67; 300, \$1.67½; 100, \$1.66½; 100, \$1.65½; 400, \$1.66½. Afternoon Session: Buyer 1891—600 tons, \$1.78; 200, \$1.78½; 100, \$1.78½. Seller 1891—200 tons, \$1.64; 400, \$1.64½; 100, \$1.65; 100, \$1.64½. Buyer 1891, after August 1st—100 tons, \$1.73½; 300, \$1.73½; 300, \$1.73; 400, \$1.73½; 100, \$1.73½. 600, \$1.74; 100, \$1.73½; 400, \$1.73½.

## Market Information.

## Produce Receipts.

Receipts of produce at this port for the week ending April 21st, were as follows:

Flour, qr. sks....	83,609	Middlings, sks....	3,823
Wheat, cts....	237,341	Alfalfa, ".....	
Barley, ".....	17,474	Chicory, bbls....	104
Rye ".....	1,191	Broomcorn bbls....	152
Oats ".....	7,671	Hops, bbls....	
Corn ".....	6,536	Wool, ".....	4,361
*Butter ".....	1,648	Hay, tons.....	1,464
do bxs.....	1,037	Straw ".....	103
do bbls.....		Wine, gals.....	370,550
do kegs.....	95	Brandy, ".....	10,850
do tubs.....	10	Raisins, bxs....	575
do ¼ bxs.....	600	Hay, cs.....	391
†Cheese, cts....	1,172	Walnuts, sks....	
do bxs.....	207	Flaxseed, ".....	171
Eggs, doz.....	76,000	Mustard, ".....	
do " Eastern. 12,000		Almonds, ".....	34
Beans, cts.....	4,599	Peanuts, ".....	245
Potatoes, sks....	27,285	Popcorn, ".....	
Onions, ".....	238	Bet sugar, bbls....	
Bran, ".....	13,986	do do sks....	
Buckwheat ".....			
*Overland.....	cts.	†Overland.....	cts.

## Cereals.

To use a trade expression, wheat has been climbing. The price the past week ran up in this market \$4 to \$5 a ton. The careful readers of the RURAL PRESS are well informed what has brought about the advances, for each week, in this department of the paper, full advices have been given regarding the influences which would create higher prices. The market has made such rapid advances that it would seem the better part of prudence for those who are still holding wheat not to hold too long. New crop wheat will be in market by June and receipts become quite free by the end of that month and, as the crop will be the largest before known, it is hardly reasonable to believe that prices will continue up. In saying this, the writer believes that prices will not go below \$1.50, if that, per cwt for No. 1 white shipping. This opinion is based on the statistical position of wheat the world over. These statistics have, from time to time, been given by the writer in this department. The excited condition of the local market makes it very difficult to give correct quotations. There is, or at least was, a large short interest on Call, and as supplies in the State are well concentrated, prices may go still higher when these sellers are forced to cover.

Barley has moved up the past week, under light supplies and more buying. The stock in this State is almost exhausted, which makes it difficult for buyers to have their wants met, except by paying well up. The crop will be large and of good average quality, but the carry over will be almost nothing, and, as the consumption in this state is increasing,

it looks as if good prices, but not as high as now, will rule throughout the season.

Oats show more strength, in sympathy with barley. The stock in this city is being reduced quite freely, under a freer feeding demand. The supply up north is said to be light. Crop prospects in this State are uniformly good.

Corn continues strong. The supply is light. It is said that it will barely equal the demand up to harvest, and that prices for corn in the Central States will not admit of shipping to this coast.

Rye is steady and firmer.

## Feedstuff.

Ground feed is higher and strong under a growing scarcity. The demand is fair.

Hay has taken another step upward. Higher prices are now ruling than for many years. Even at the advance, receipts are only fair. Nevada is unloading on us. At the present rate of shipments from that State, the surplus will soon be worked off. New hay will begin to come in soon, as the fields in the more southern part of the central counties are said to be ready. It is a question whether, owing to the high price of cereals, enough hay will be cured this season to last into next season.

## Fruits.

California apples are in light supply. By the last steamer from Australia 1587 boxes were received, which, being beaten on passage, are having poor sale. Other imports from that quarter are expected. The fruit industry in Australia is increasing quite rapidly. With free tinplate and cheap sugar refineries in this State, under the bounty on sugars, exporters can and doubtless will sell refined sugars delivered in Australia cheaper than they do here. The fruit canning in duty in South Australia has more than doubled the past year, and this year it will show another large increase. We sent formerly large quantities of canned fruits from here to Europe and other foreign ports, but Australia is getting that trade now.

Strawberries are coming in more freely. Prices do not show any material change yet, but with warmer weather, the market under liberal supplies will shade off.

Cherries and apricots will soon be in the market. They would have been in by this date had the weather turned warmer. Cannery men in the market contracting for fruits. Orchardists will confer a favor by sending to us the prices being paid in their particular locality.

Lemons and limes are in good supply. Cool weather was against sellers, but with warm, clear sunny days prices will do better.

Choice oranges continue scarce with desirable sizes fetching more money. Scrubby oranges are in large supply, and sell at low figures. There are large quantities of rough thick skinned and also scaly oranges on the market.

Dried fruits are cleaning up under an increasing distributive demand at the East. It looks as if the new season will enter on a fairly bare market. It is stated in well informed circles that there will be a large increase in the quantity of fruits to be dried this year.

Raisins are fairly steady. Eastern advices are more encouraging.

## Live-stock.

Bullocks are weaker, but not quotable lower. The condition is generally excellent. Mutton sheep are barely steady. Hogs are firm, particularly small to medium sized suitable for the block. Milch cows are slow. The high price of feed and low price of butter are against much of a demand.

The market for dressed cattle is quoted as follows (to obtain the price on foot, take off from the price for stall-fed one-third to one-half, according to the nature of the feed and time fed; and for grass-fed take off the price from 40 to 60 per cent):

HOGS—On foot, light grain fed, 5½¢@5¾¢ lb. dressed, —@—¢ lb.; heavy, 5½¢@5¾¢ lb.; dressed, —@—¢ lb. Stock hogs, 4¼¢@4½¢ lb. BEEF—Stall fed, 6½¢@—¢ lb.; grass fed, extra, 6¢@—¢ lb.; first quality, 5½¢@—¢ lb.; second quality 5¢@—¢ lb.; third quality, 4¢@—¢ lb.; bulls and thin cows, 2¢@3¢ lb.

VEAL—Small, 6¢@7½¢ lb.; large, 5¢@6½¢ lb. MUTTON—Wethers, 8¢@8½¢ lb.; ewes, 7½¢@8¢ lb.; spring lamb, 9¢@10¢ lb.

## Vegetables.

Seasonable garden truck is coming in more freely. Peas and string beans, owing to cooler weather, are in lighter receipt and temporarily higher. With warmer weather the supply will increase rapidly, as a larger acreage has been planted. Tomatoes are backward; we have still to depend on Los Angeles. Rhubarb has a wide range. Asparagus is slightly stronger. More is being canned than ever before. Old onions are about gone—quotations on for new. The quality is poor. By the last Australian steamer 2702 packages were received. Owing to beating, the quality is poor. The next incoming steamer will bring in more.

From Australia 20 cases of garlic were received the past week.

New potatoes are coming in freely. While the quality averages better, yet it is still poor. Large-sized, well-matured new are wanted to fill distant orders. The receipts of old are large, yet the market does not shade off. Oregon is sending us increasing quantities.

## Miscellaneous.

From reliable advices up to April 22d the following summary of tonnage movement is compiled:

On the way to	1891.	1890.
San Francisco.....	265,146	177,766
San Diego.....	18,000	14,570
San Pedro.....	6,807	11,055
Oregon.....	23,947	24,278
Puget Sound.....	37,349	20,789

Totals.....351,249 248,458

In port at

San Francisco, disengaged.....	3,525	22,426
" engaged for wheat.....	46,446	46,249
San Diego.....	4,862	
San Pedro.....	1,999	
Columbia River.....	11,889	
Puget Sound.....		

Totals.....68,631 87,033

To get the carrying capacity, add 65 per cent to the registered tons as given above.

From July 1, 1890, to April 17, 1891, the following are the exports from this port:

Wheat, cts.....	11,278,164	11,299,484
Flour, bbls.....	977,636	910,851
Barley.....	216,264	919,125

Poultry toward the close shows a firmer tone, for the better kinds. Scrubby is slow.

Honey is coming in quite freely, causing large buyers to hold off, unless offered inducements.

Wool is in fair demand. Buyers are sampling more freely. Buying in the country is reported to be at a slight advance on city quotations.

Hops are unchanged. The supply is light. English advices just to hand point to higher prices as the supply there is not equal to requirements up to harvest.

Provisions are strong with an advancing tendency. White beans are tending up under a good distributive demand. Colored beans are slow.

## Domestic Produce.

Extra choice in good packages fetch an advance on top quotations, while very poor grades sell less than the lower quotations.

WEDNESDAY, April 23, 1891.

BEANS AND PEAS.	do Obco.	9½	9½
Bayo, cts.....	3 40	do paper shell	9½
Butter.....	2 70	do Ohill.....	9½
Peas.....	3 00	Almonds, hd shl.	7½
Red.....	2 50	Softshell.....	14½
Pink.....	2 20	Paper shell.....	15½
Small White.....	2 95	Beans.....	12½
Lima.....	3 60	Pecans small.....	12½
Fid Peas, hkye 1 65	2 00	do large.....	15½
do green.....	1 50	Peanuts.....	4½
do Eastern do.....	2 50	Filberts.....	10½
N. Y. Peas.....	1 75	Hickory.....	7½
Split.....	4½	Chestnuts.....	12½
		Pine.....	9½

ONIONS.

New.....2 60 POTATOES. | 1½ |

California.....5½ New, lb..... | 1½ |

German.....6 Early Rose, sks. | 65 |

DAIRY PRODUCE, ETC. Tomato Butter | 80 |

Cal. Poor to fair, 15¢ River Reds..... | 60 |

do good to choice 18¢ Burbank, river..... | 60 |

do Gilthead.....19¢ do Salinas..... | 90 |

do Creamery rolls 19¢ do Petaluma..... | 60 |

Cal. choice mild 10½¢ do Humboldt..... | 100 |

do fair to good 8½¢ do Oregon..... | 100 |

do gilt edged.....11¢ Jersey Blues..... | 70 |

Young America.....11¢ POULTRY AND GAME. |  |

N. York Cream.....12½¢ Hens, doz..... | 5 00 |

Western.....11¢ Roosters, old..... | 5 00 |

Cal. ranch, doz.....18 do young..... | 8 00 |

do do selected.....20 Broilers, small 3 00 | 5 00 |

do store.....17 do large..... | 5 50 |

FEED Fryers..... | 7 00 |

Brans, ton.....14 50 Ducks, old..... | 6 00 |

Feedmeal.....30 00 do young..... | 8 00 |

Grd Barley.....32 00 Geese, pair..... | 1 50 |



List of U. S. Patents for Pacific Coast Inventors.

Reported by Dewey & Co., Pioneer Patent Solicitors for Pacific Coast.

FOR THE WEEK ENDING APRIL 14, 1891.  
450,362.—CHILDS FOLDING CARRIAGE—Fred. Bornemann, S. F.  
450,134.—HARNESS—J. H. Bradshaw North Yakima, Wash.  
450,484.—TRACTION WHEEL—Geo. R. Duval, Benicia, Cal.  
450,230.—CAR AXLE—L. Hall Jr., Glendale, Or.  
450,486.—DOOR SPRING—Harvey & Root, Los Angeles, Cal.  
450,236.—ORE MILL—C. S. Jones, Redding, Cal.  
450,378.—INK-ERASER—W. H. Robinson, Ocean-side, Cal.  
450,434.—SURF POWER PUMP—H. E. Thomas, S. F.  
450,436.—FOOT RASP FOR HORSES—G. Tompkins, San Leandro, Cal.

The following brief list by telegraph, for April 21, will appear more complete on receipt of mail devices:  
California—William N. Anderson, San Rafael, means for operating elevator doors; Miles B. Dodge, S. F., steam engine; Peter D. Horton, Oakland, assignor of one-third to J. M. Walling, Nevada City, penholder; George H. Merrick, assignor to himself and G. Knoell, S. F., faucet; Willis H. Ostrander, Merced, assignor to Ostrander Repeating Gun Company, S. F., repeating breech-loading gun; John T. Smith, S. F., journal box; John T. Smith, S. F., packing; Frank Walker, Los Angeles, sewer manhole; Frank Zan, S. F., crate and display stand for brooms; Frank Zan, S. F., shield for brooms. Arizona—Andrew J. Rutter, assignor of one-half to D. A. MacNeil and F. L. Moore, Tombstone, thill coupling. Oregon—Olin H. Bagley, Astoria, gold-saving apparatus; Miles S. Cody, Anacortes, reaping machine; Martin Rosenheim, Tacoma, combined extension show table, toilet stand and bureau.

NOTE.—Copies of U. S. and Foreign patents furnished by Dewey & Co., in the shortest time possible (by mail for telegraphic order). American and Foreign patents obtained, and general patent business for Pacific Coast inventors transacted with perfect security, at reasonable rates, and in the shortest possible time.

The Farmers' Alliance in Kansas

—AND—

Its Great Paper, The Advocate.

To the Alliance Brothers and Sisters of California THE ADVOCATE desires to send greeting, and to say through the columns of the RURAL PRESS: Send for a sample copy of THE ADVOCATE and it will tell you how we are "Holding the Fort" here in Kansas and pushing the movement along with the same zeal and enthusiasm as the RURAL PRESS tells us you are doing on the Pacific Coast. THE ADVOCATE has over 125,000 readers in Kansas and sister States. It contains 16 pages, 64 columns, and bears the proud distinction of having been the most potent factor in the glorious political victories of the Alliance in Kansas. We will send you sample copy free, and 62 copies, one year, for \$1. Yours Fraternally,  
ADVOCATE PUBLISHING CO.,  
Topeka, Kansas.

We will send the RURAL PRESS and the ADVOCATE one year for \$3 to any address in the United States.—PUBLISHERS PACIFIC RURAL PRESS.

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And 300 Washington St., SAN FRANCISCO.

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COMMISSION MERCHANTS  
GREEN and DRIED FRUITS,  
POULTRY, EGGS, GAME, GRAIN, PRODUCE  
AND WOOL.

California Inventors

Should consult DEWEY & CO. AMERICAN AND FOREIGN PATENT SOLICITORS for obtaining Patents and Caveats. Established in 1850. Their long experience as journalists and large practice as Patent attorneys enables them to offer Pacific Coast Inventors far better service than they can obtain elsewhere. Send for free circulars of information. Office of the MINING AND SCIENTIFIC PRESS and PACIFIC RURAL PRESS No. 220 Market St., San Francisco. Elevator, 12 Front St.

HAMMER PRICE \$2.00  
HOT CHISEL PRICE 75c  
COLD CHISEL PRICE 75c  
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KNIFE PRICE 50c  
PICKERS PRICE \$2.00  
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THIS COMPLETE KIT OF TOOLS  
Only \$25.  
Send for No. 16 Illustrated Catalogue.  
TRUMAN, HOOKER & CO., San Francisco.

Ditching Machine for Sale.

If any farmer in Russian river or Santa Rosa valley desires a DITCHING MACHINE at a very low price let him address S. E. G., P. O. box 2517, San Francisco.

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PETALUMA  
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DAISY WAGON  
Write us for prices and full particulars. Address  
TRUMAN, HOOKER & CO.,  
SAN FRANCISCO.....and.....FRESNO.

FOR SALE.

Registered Guernseys of the  
Choicest Breeding.

Two Cows, Two 2-yr old Heifers, Two yearling Heifers,  
One Bull Calf. Second to none, at less than half value.  
S. M. WILBUR, South Pasadena, Cal.

PLEASANTON seems a charming rural town. The  
Rose hotel, we understand, will accommodate many  
summer boarders, and at very reasonable rates.

P. P. MAST & CO.,

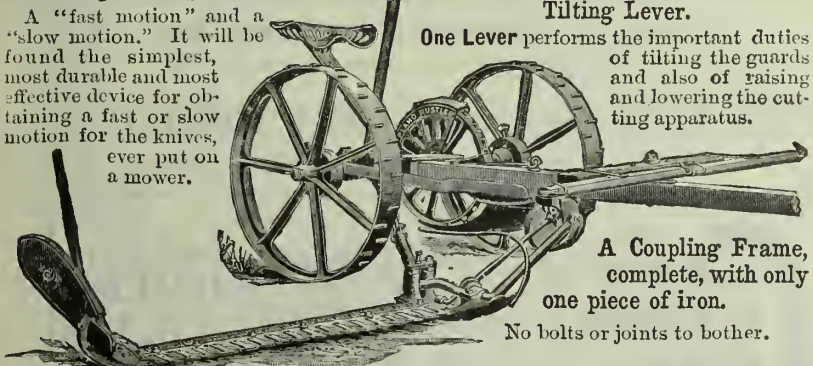
NO. 31 MARKET STREET, - - - - - SAN FRANCISCO, CAL.

— PACIFIC COAST AGENTS FOR —

PLANO RUSTLER.

Changeable Speed.

A "fast motion" and a "slow motion." It will be found the simplest, most durable and most effective device for obtaining a fast or slow motion for the knives, ever put on a mower.



Never Chokes or Clogs in any Grass.

PLANO RUSTLER MOWERS—4 ft. 3 in. Cut.....\$45 00  
5 ft. " ".....55 00

The Most Perfect Floating Bar and Tilting Lever.

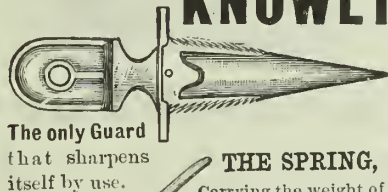
One Lever performs the important duties of tilting the guards and also of raising and lowering the cutting apparatus.

A Coupling Frame, complete, with only one piece of iron.

No bolts or joints to bother.

KNOWLTON MOWER.

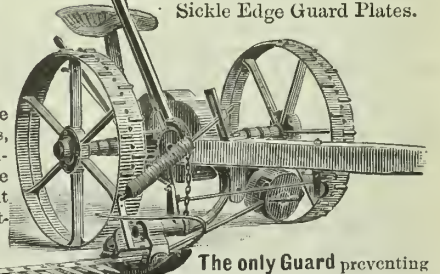
The first Mower made with Sickle Edge Guard Plates.



The only Guard that sharpens itself by use.

THE SPRING,

Carrying the weight of the bar on the Drive Wheels, gives great cutting power without side draft, and making the draft of the 5, 6 and 7 ft. Mowers but a trifle more than other makes cutting but 4 ft. 3 in.



The only Guard preventing the grass from slipping forward when the section strikes it.

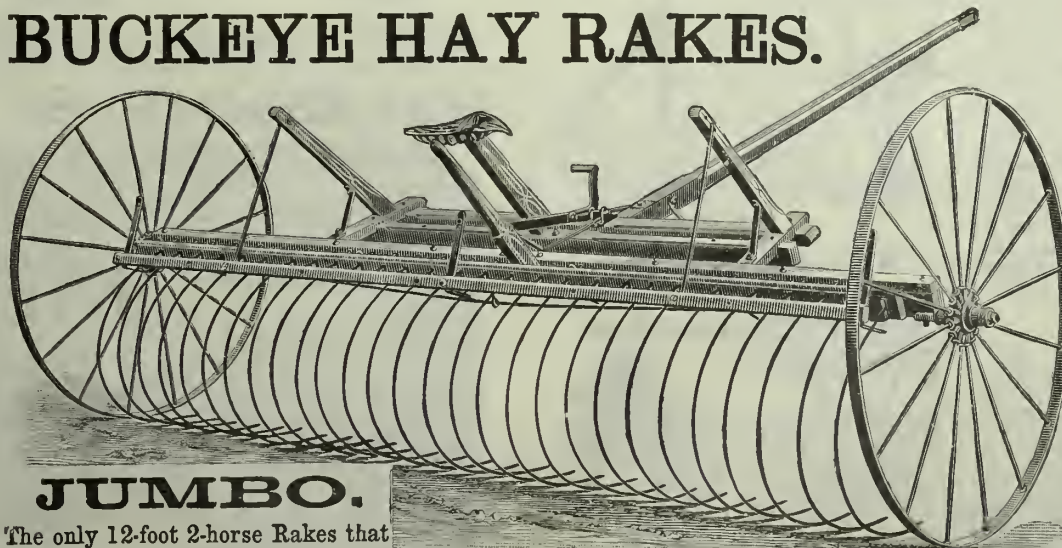
KNOWLTON MOWERS—4 ft. 3 in. Cut.....\$ 75 00  
4 ft. 6 in. ".....80 00  
5 ft. ".....85 00  
6 ft. ".....90 00  
7 ft. ".....110 00

BUCKEYE HAY RAKES.

FIVE REASONS

Why the Buckeye Rakes are the Best for the Farmers to Buy:

1st—The Teeth being adjustable as to height and curved the proper shape and so hung to axle makes it the ONLY SULKY RAKE that will carry the hay on the teeth when raking, and will not roll the hay in front of them nor rake the dust and clods into it.



JUMBO.

The only 12-foot 2-horse Rakes that have been a success on this Coast.

BUCKEYE HAY RAKES—

	Wood Wheels.	Steel Wheels.
A 1, Drop-tooth, 8 ft.....	\$27 50	\$28 50
A 2, Coif-tooth, ".....	28 50	29 50
A 3, Spiral-spring, ".....	29 50	30 50
A 4, Drop-tooth, ".....	31 00	32 50
A 5, Coif-tooth, ".....	31 50	33 50
A 7, 10 ft. Drop-tooth.....	35 00	37 50
A 8, "Jumbo" 12 ft. Drop-tooth.....	40 00	42 50
A 9, " " Spiral-spring.....	42 50	45 00

2d—Is a PERFECT SELF-DUMP and LOCK-LEVER without cogs or ratchets.

3d—Has perfect swinging cleaner bar in place of the stationary iron rods called cleaners that are so annoying, always loosing or breaking.

4th—Wrought iron and steel being used in place of cast iron, make them the strongest, simplest and most serviceable Rake ever made.

5th—Dumps much higher and makes a rake that does the bunching as well as the raking.

THE JUDSON RABBIT-PROOF WIRE & PICKET FENCE.

fence colored RED by boiling in a chemical solution that preserves the wood. Address JUDSON MANUFACTURING COMPANY, 14 and 16 Fremont Street, San Francisco.

CHEAPER and BETTER than Ever. Their 2-ft. high 3-cable fence has taken the trade. Farmers put barbed wire above it and have the CHEAPEST GOOD Fence that can be made in ANY WAY. Rabbits cannot get through. Hogs cannot break it and Horses or Cattle cannot get over it. All our



**FACTS ABOUT ELECTRICITY.**—"All the energy in the world," said Dr. C. F. Chandler, in a recent lecture before the Columbia School of Mines, "come from sunshine. Even the energy in the electric battery that rings the doorbells of our homes has its origin in the light of the great solar system. The force in the copper wire that sets the bell to ringing comes from the zinc plate in the battery jar. The energy in the zinc plate comes from the Anthracite coal with which it was burned when taken from the mines, and, finally, the energy in the Anthracite coal was put there by the sunlight that fed and nourished it when it existed, ages ago, as trees and plants. An interesting misapprehension that exists in the minds of a good many persons, is concerning the vital dangers that lurk in the pressure of, say, a thousand volts. The newspapers often tell us that a man has been killed by such a pressure, whereas, in fact, such a pressure alone could not kill a humming bird. I have frequently caught in my hand sparks possessing an electro-motive force of 100,000 volts without feeling anything more than a very slight burn. The danger arises only when the volts are reinforced by a good many amperes or currents, as when one takes hold of a charged wire. Then one feels a shock that is unmistakable, because the force of a great many currents in the wire suddenly decomposes all the fluids in his body. The salt in the blood at once turns to chlorine gas, and the man whose veins are charged with this deadly poison cannot in reason be expected to live long."

**A SNEAK THIEF** is usually regarded as a creature of low and depraved tastes. But there is one who was one a few weeks since in Providence, R. I., who seems to have an ambition to reach a high elevation in some way. He climbed by night to the top of the Electric Light Co.'s chimney, 250 feet high, presumably by the lightning rod, and stole the platinum tips from the top of the rod. The theft has entailed considerable expense upon the company as the rod will have to be retipped, and can only be done by building a platform about the top of the chimney. Human audacity could scarcely attain to a greater height, especially by such slender means. The company ought to forgive the theft and appoint him trimmer to their lofty light towers.

For nearly half a century Ayer's Cherry Pectoral has been the most popular cough remedy in the world. The constantly increasing demand for this remedy proves it to be the very best specific for colds, coughs, and all diseases of the throat and lungs.

**USES OF THE RARE METALS.**—Some rare metals, possessing special qualities are required for certain work. Thus palladium is used in making some parts of time-pieces, and iridium for the points of gold pens, and the uninitiated have no idea of the value of such products. Vanadium costs, for instance, 123,900f. per kilogramme; zirconium, 79,295f.; and lithium, which is the lightest of metals, 77,090f. per kilogramme. Rhodium, which is extremely hard and brittle, and is only fusible at a very high temperature, fetches 25,330f.; and iridium, the heaviest substance hitherto discovered, costs 12,005f. per kilogramme. It will, therefore, be seen that gold and silver are far from being the most precious metals, as far as their market value is concerned.

**TERRA COTTA LUMBER.**—Near Melbourne, Australia, is a factory of terra cotta lumber from clay and hardwood sawdust. In the process of manufacture, the sawdust is spread and left lying on the clay in the pit from 36 to 40 days to allow it to sweat. Both are then mixed thoroughly, stones being eliminated, the mass is molded to the desired shapes, steam dried, and the sawdust roasted out in a kiln. The product is guaranteed to be proof against fire, heat, cold and vermin.

**WELL-SEASONED WOOD.**—To test wood whether it is well seasoned, put a small quantity of tincture of iodine on a part freshly sawn or cut. If it assumes a dark, nearly inky color, then the wood is good and at least one year cut; but if the place assumes a yellow color, then the wood is quite new and not fit to use.

#### ONLY A DIME

Well invested often brings large returns. Buy a "Horse Book" and it will save you many a dollar. Tells you about the horse, what ails him, and how to cure him. About the Pioneer Buggy and where to get it. Sent for a dime. Pioneer Buggy Company, Columbus, Ohio.

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Should this paper be received by any subscriber who does not want it, or beyond the time he intends to pay for it, let him not fail to write us direct to stop it. A postal card (costing one cent only) will suffice. We will not knowingly send the paper to any one who does not wish it, but if it is continued, through the failure of the subscriber to notify us to discontinue it, or some irresponsible party requested to stop it, we shall positively demand payment for the time it is sent. LOOK CAREFULLY AT THE LABEL ON YOUR PAPER.

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Should read the advertisement of the Aloha Nurseries. The best varieties are offered at rates so low that no one need hesitate about planting for experiment, or for investment in places where the orange is known to thrive.

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In one's life is the discovery of a remedy for some long-standing malady. The poison of Scrofula is in your blood. You inherited it from your ancestors. Will you transmit it to your offspring? In the great majority of cases, both Consumption and Catarrh originate in Scrofula. It is supposed to be the primary source of many other derangements of the body. Begin at once to cleanse your blood with the standard alternative,

## Ayer's Sarsaparilla

"For several months I was troubled with scrofulous eruptions over the whole body. My appetite was bad, and my system so prostrated that I was unable to work. After trying several remedies in vain, I resolved to take Ayer's Sarsaparilla, and did so with such good effect that less than one bottle

### Restored My Health

and strength. The rapidity of the cure astonished me, as I expected the process to be long and tedious."—Frederico Mariz Fernandes, Villa Nova de Gaya, Portugal.

"For many years I was a sufferer from scrofula, until about three years ago, when I began the use of Ayer's Sarsaparilla, since which the disease has entirely disappeared. A little child of mine, who was troubled with the same complaint, has also been cured by this medicine."—H. Brandt, Avoca, Nebr.

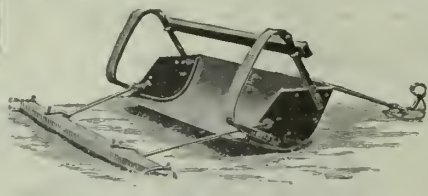
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PREPARED BY

DR. J. C. AYER & CO., Lowell, Mass.  
Sold by Druggists. \$1, six \$5. Worth \$5 a bottle.

## The Porteous Improved Scraper.

Patented April 3, 1883. Patented April 17, 1883.



Manufactured by

## G. LISSENDEN.

The attention of the public is called to this Scraper and the many varieties of work of which it is capable, such as Railroad Work, Irrigation Ditches, Levee Building, Leveling Land, Road Making, etc.

This implement will take up and carry its load to any desired distance. It will distribute the dirt evenly or deposit its load in bulk as desired. It will do the work of Scraper, Grader, and Carrier. Thousands of these Scrapers are in use in all parts of the country.

This Scraper is all steel—the only one manufactured in the State.

Price, all Steel, 4-horse, \$40; Steel 2-horse, \$31.

Address all orders to G. LISSENDEN, Stockton, Cal.

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Makes loop, straightens wire and cuts off with one movement of the lever.

Lightning Lifting Jack, for hay presses, wagons, etc. All steel and very powerful.



Self-adjusting Wire Reel. Best in the world. Takes any size coil.

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GABLER-PEASE

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OTHER PIANOS

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## THE ROCHESTER STEEL FRAME ORCHARD and VINEYARD GANG.

LIGHT WEIGHT! EASY DRAFT!

AMPLE STRENGTH!

STEEL FRAME OUTSIDE OF WHEEL

Prevents Injury During Close Cultivation.

LEVER ADJUSTS DEPTH WHILE PLOWING.

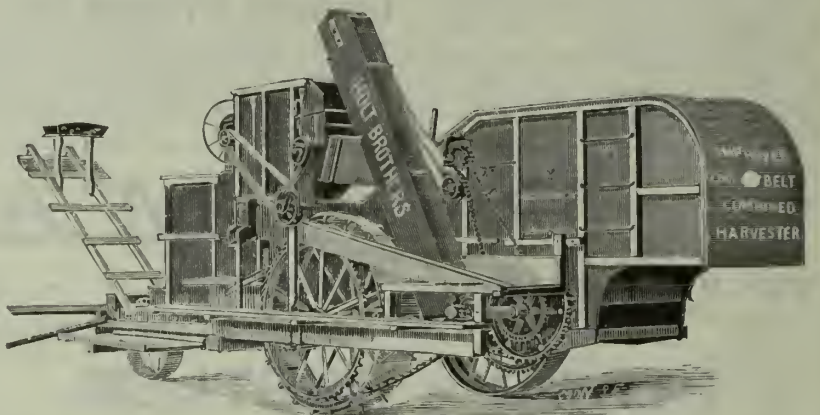


Steel Frame, Steel Molds, Steel or Chilled Shares and Lands, Tongueless, Self-guiding, Simple, Strong. A simple adjustment permits plow nearest vines or trees to make shallow furrow, say two inches, thus avoiding danger to the roots, the others plowing required depth. Weight of Three-Gang 7-inch only 200 pounds, and amply strong for hard soils. Price complete, \$35.00. The only implement with advantages of both Plow and Cultivator, thus satisfying the advocates of either. Send for Catalogue and Testimonials.

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348 N. Main Street, Los Angeles. 141 Front Street, Portland

## HOLT BROTHERS' Improved Combined Harvester.

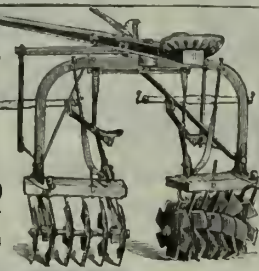


For Efficiency, Durability, Light Draft and Fine Work it is Far Superior to any other Harvester of the Present Day.

Those contemplating buying are invited to visit our manufactory and see for themselves. Circulars and testimonials sent on application to

STOCKTON WHEEL CO., or, HOLT BROTHERS,  
Stockton, Cal. 30 & 32 Main St. S. F.

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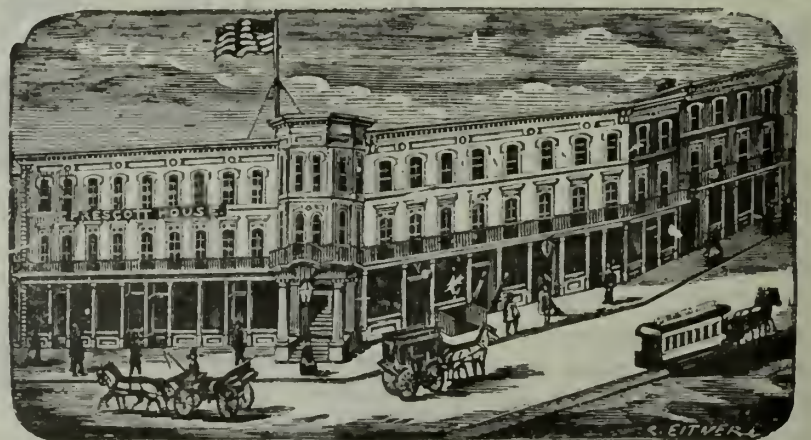


IT WILL CULTIVATE CORN and COTTON to a Height of THREE FEET Throwing the Soil to or from the Plant. Send for Special Circular.

HIGGANUM MANUFACTURING CORPORATION SOLE MANUFACTURERS HIGGANUM, CONN.

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Free Coach to and from the House J. W. BECKER Proprietor

## WHALE OIL SOAP

EIGHTY PER CENT DRY.

J. N. KNOWLES, Manager, ARCTIC OIL WORKS, EDWIN L. GRIFFITH Secretary.

Manufacturers of SPERM, WHALE, ELEPHANT AND FISH OILS, MINERAL, LUBRICATING AND ILLUMINATING OILS, LARD AND TALLOW OILS.

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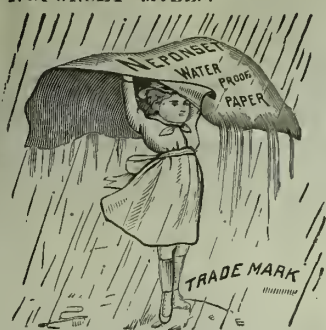
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NEPONSET MILLS.

THESE PAPERS are all guaranteed to be absolutely waterproof, air-tight and odorless.

For sheathing and lining of buildings; for roofing of factories, storehouses and farm buildings.

They are entirely unaffected by heat, cold, snow or rain.



"NEPONSET" SHEATHING (color black).  
NO. 1 "NEPONSET" ROPE ROOFING (color terra cotta).  
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These papers are in rolls 36 inches wide, and they contain either 250 or 500 square feet per roll, and weigh about 20 or 40 pounds per roll, respectively.

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221 Front Street, - - San Francisco, Cal.

**PROTECT YOUR TREES FROM SUNBURN, BORERS, RABBITS, ETC.,**

By Using the  
**Pacific Tree Protector.**

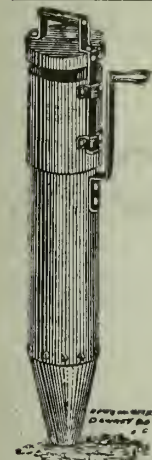
Waterproof, Adjustable & Convenient.  
Saves Time, Trouble & Expense.

No. 1 Tanned Felt, Vermin and Waterproof, good for 3 yrs, 7x16, \$2.50 100.  
No. 2 Patent Insect-proof, Heavy, 7x16, \$1.50 per 100.

No. 3 Patent Insect-proof, Light, 7x16, \$1 per 100.  
Special Sizes made to order. Orders promptly filled by

**THE PACIFIC ROLL PAPER CO.,**  
30 and 32 First Street, San Francisco.

Also headquarters for Fay's Patent Manila-Leather Roofing and Building Papers; Cheapest and Best in the Market. Send for Samples.



**BROWNE'S**  
Patent  
**Squirrel Exterminator.**

This is an apparatus for turning straw and sulphur, and also forces the fumes down their holes which never fails to kill. I will give \$100 in case the exterminator does not kill (if properly applied) every ground squirrel that its deathly fumes comes in contact with. Thousands are in use. Price \$3.00. Send for circulars to

**F. E. BROWNE,**  
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ENGRAVING—SUPERIOR WOOD AND Metal Engraving, Electrotyping and Stereotyping done at the office of this paper.

**SELLING OFF**  
ON ACCOUNT OF REMOVAL.

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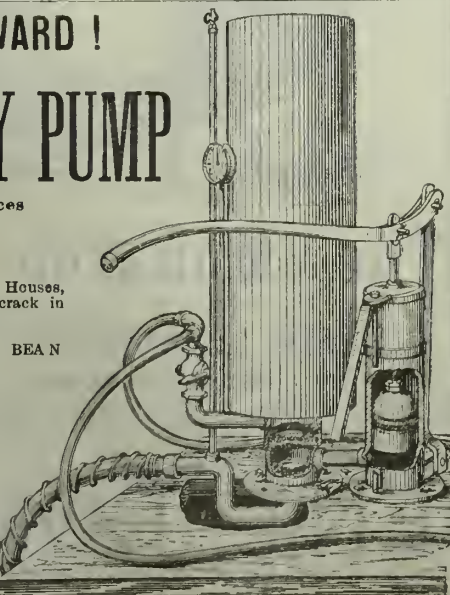
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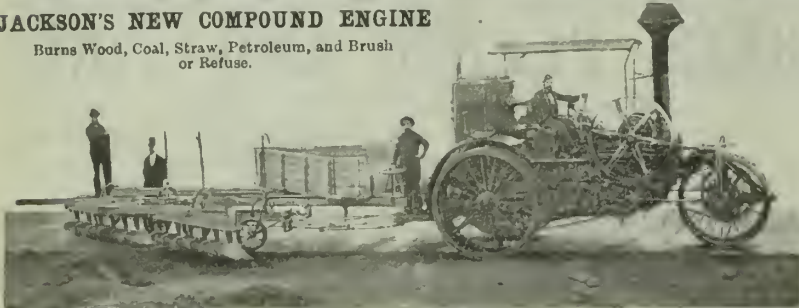
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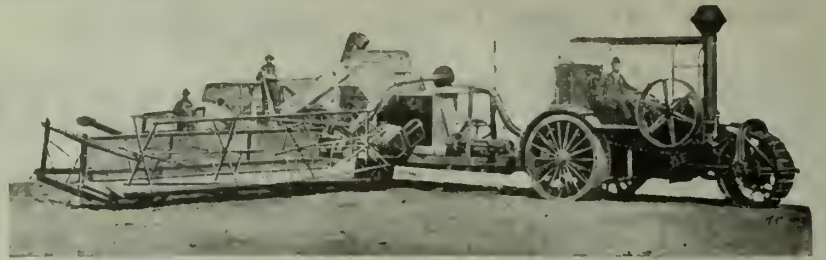
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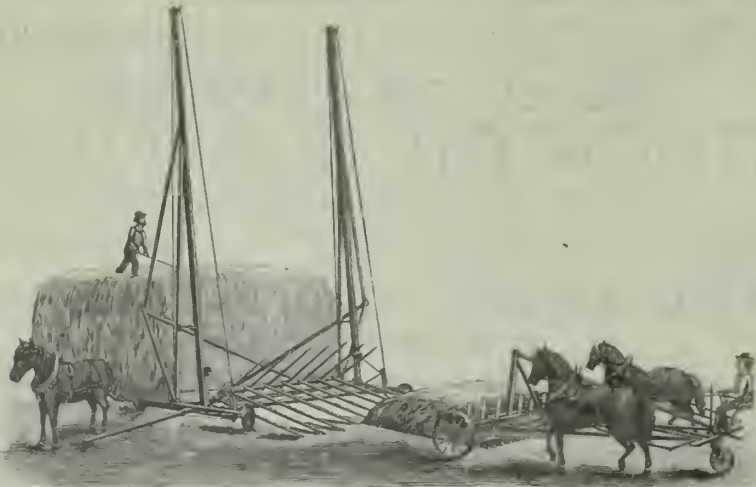
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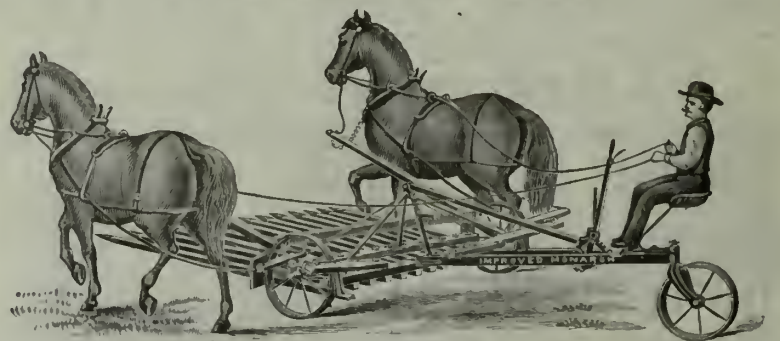
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Vol. XLI.—No. 18.

SAN FRANCISCO, SATURDAY, MAY 2, 1891.

DEWEY & CO., Publishers,  
Office, 220 Market St.



MRS. PRESIDENT HARRISON.

#### Our Distinguished Guests

California has done herself much credit by the cordial welcome extended to President Harrison and his party. Everywhere the most sincere enthusiasm has prevailed and exceptional marks of esteem and honor have been paid to the chief executive, in which those of every shade of political opinion and interest have eagerly participated. There have been tokens of welcome most unique in design and in spirit characteristic of the State and its citizens. The "California style" has cropped out and seems very agreeable to the recipients of our honors. No doubt the effect upon those high in the National affairs will be toward a truer appreciation of our Western spirit and the resources which we are developing, and this will be of inestimable value to us in many ways. Next week the President and his party will be in Oregon and Washington, and the northern part of the coast will continue the welcome which has been sounded on so high a key by the people of California.

We are pleased to introduce to our readers this week two more of the distinguished visitors, and thus complete our quartet of the people's guests. Mrs. Benjamin Harrison has won universal esteem and admiration by her womanly beauty, gentle manners and keen cordial in-

terest in the efforts to entertain and welcome her. She has borne the fatigue of the long journey splendidly, and it is the judgment of all that her pictures do not do her justice either in lineament or expression. The portrait which we present on this page is the best we have seen, and it must serve as the foundation for such conception of the lady as the reader can form by bestowing a more gentle expression and a more graceful pose than the artist has secured.

Mrs. Harrison is a native of Ohio, the daughter of Prof. Scott, who was teacher of chemistry at Miami University, at Oxford, Ohio, the institution at which Benjamin Harrison graduated in 1852, at the age of eighteen. Young Harrison then did well at college, capturing not only a diploma, but the heart of the professor's daughter, who also bestowed her hand upon him, two years later. Mrs. Harrison has proved a most valuable helpmeet to her husband during all the experiences of his life from his first struggle for a \$5 fee as a young lawyer, up to his career as the chief executive of a great nation. Mrs. Harrison is a leader in all good words and works, and we trust that many years remain to her.

Another portrait upon this page presents the strong face of Hon. John Wanamaker, Postmaster-General. Mr. Wanamaker has proved

a very acceptable member of the President's party, and has received marked tokens of appreciation from the people. Mr. Wanamaker will be 54 next July, and is a native of Philadelphia. His youth was a laborious struggle, rewarded in early manhood with the means to open a clothing establishment in Philadelphia. Untiring, honest, straightforward, shrewd, the young merchant prospered, until to-day he owns and conducts one of the largest retail establishments in the world, and is supposed to be worth \$10,000,000.

Mr. Wanamaker is well-known throughout the country as a devout Christian and a zealous worker for religious interests. He has always taken a prominent part in public movements for the relief of suffering humanity, and his contributions have always been among the first and the largest.

In personal appearance Mr. Wanamaker is not particularly a handsome man. He has a full, round head, a broad forehead, a strong nose, heavy-lidded eyes that flash with energy, heavy jaws that denote strength of will, and tight-closed lips that just droop at the corners, giving an ever-present touch of sedateness. He has that quality which above all signifies the possession of genius—the quality of absolute concentration of mind on the subject in hand, so that on every occasion he is able to be at his best. His power of organization is, of course, masterful; and, like all busy men, he never appears hurried, and always seems to have abundant time for everything.

In his work as Postmaster-General, Mr. Wanamaker has struck several popular chords.

His work for the postal telegraph and postal savings banks has commended him widely.

LAND QUESTIONS IN NEW MEXICO.—The telegraph states that while at Deming on his way westward, President Harrison spoke as follows: Thinking that you labored under disadvantages by reason of the unsettled state of your land titles, because no country can settle up and become populous while the titles to its land remain insecure, it was my pleasure to urge upon Congress, in both the general and a special message, the establishment of a special land court, to settle this question once for all. [Cheers.] I am glad that statute is now a law, and immediately upon my return from this trip, I expect to announce the judges of that court and to set them immediately to work upon these cases, so that you shall certainly within two years have all these questions settled. I hope you will then see an increase of population that has not as yet been possible, and which will tend to develop your great mineral resources and open up your lands to settlement, and make you a prosperous people.

DESPITE the fact that there is a State bounty of \$5 per scalp on the coyote, and a county bounty of \$6, sheep raisers in Mendocino county are so annoyed by coyotes that a call is out for a meeting of sheep-owners, to take measures for the destruction of the depredators.

ONE day last week, while herding cattle on the "Grant," near Lemoore, Tulare county, a vaquero discovered an elk in the brush and succeeded in capturing it with his lariat. Elks are very nearly extinct in that section.



HON. JOHN WANAMAKER, POSTMASTER-GENERAL.



## CORRESPONDENCE

Correspondents are alone responsible for their opinions.

## Through San Geronimo Pass.

EDITORS PRESS:—From San Bernardino, eastward to the sandy plains of the Colorado desert, there is a gradual rise until one reaches the summit at Beaumont, and from there it is one slow descent until one reaches the railway station at Salton, 250 feet below sea level. From San Bernardino, the Southern Pacific railway traverses the San Mateo canyon, where the cultivated fields are too frequent to be very interesting to a botanist.

From Redlands, on the 9th of April, '91, I took a wood road which led off to the left, among the unsettled hills, where nature still rules supreme. The canyon, and hillsides were covered with a thick growth of brush, *Rhus ovata*, shrub oaks and California lilacs being especially conspicuous. *Castilleja foliolosa* grew in clumps among the bushes, a foot or more high, and forming a brilliant display on the steep canyon sides. The floral bracts are of a bright orange—vermillion at the tips—each an inch or more long, forming a dense head, among which the shorter light greenish-yellow corollas of the flowers are entirely eclipsed.

In open places, *Nemophila insignis*, with its bright "baby eyes," grew in clusters of surpassing beauty, and lined the roadside until the eastern descent to the desert commenced. The flowers averaged nearly an inch in diameter, of a lovely cyanine blue, with a lighter or a white center. It covered the hillsides in places for acres in extent, appearing like a patch of the blue sky reflected upon the earth.

Growing on some of the steeper canyon sides were clusters of a species of *Phlox*, suffrutescent, two or three feet high, with a profusion of light rose-purple flowers, measuring 1½ inches across. The hirsute stems and foliage rendered the plant more admirable at a distance than in the hand, but it is one which would command admiration and attention anywhere, and one well worth further cultivation.

Among the annals were *Lupinus hirsutissimus*, with hirsute stems and foliage, attaining a height of three feet or more, with spikes of aster-purple flowers. In some of the open fields grew *Sanicula bipinnatifida*, with its dense, ball-like umbels of deep dahila purple flowers. This species of sanicle seems abundant in Southern California, especially on adobe lands, in grain fields, or scattered over the broad plains of the larger valleys.

*Layia elegans*, with a center of cadmium yellow color, the rays of a clear lemon yellow, tipped with white, grew abundantly on the western slope from Riverside to the summit of the pass, and for a ways down the eastern slope. At the summit another *Layia* without the white tips to the outer rays made its appearance, while a third species of a clear white throughout, extended from the sandy plains around Colton to the eastern or desert slope. The *Layias* are all elegant plants, husky and erect in habit, with flowers two inches across and of a metallic brilliancy. *Layia elegans* has already become favorably known in cultivation and the other varieties must soon follow.

*Orthocarpus purpurascens* is a peculiarly beautiful and showy annual, a foot high, diffusely branching, erect in habit, producing numerous dense and thick terminal oblong or cylindrical spikes of flowers. The yellowish corolla is tipped with bright and lemon-yellow on the lower lobes, the upper part tipped with brilliant magenta, the whole encircled and crowned with brilliantly colored floral bracts of a rich magenta or crimson-purple.

*Peonia Brownii* (*P. Californica* Nutt.) with its coarse "brick-red" flowers was observed in bloom on these hills, and rattleweed (*Astragalus*) was also abundant. The delicate, lovely rose-purple flowers of *Gilia dianthoides*, growing in large patches by the roadside, commanded the admiration they invariably elicit. The popcorn flowers (*Krynitzkia* species), of a snowy whiteness, dotted the fields of alternate green and blue and gold.

At Beaumont, at the summit of the pass, single roots of the fragrant *Viola pedunculata* formed masses of foliage and flowers two feet and more across, six inches high, and bearing hundreds of the peach-scented blossoms. The color of this violet is beyond comparison, being a shade between lemon and cadmium yellow, of a metallic brilliancy, deep and clear, the backs of the petals veined or tinged a rich prune-purple. The profusion and luxuriance of this violet was here greater than I had previously noted in any other locality, and it seemed to reach its maximum growth in the cultivated fields. Other lovely annuals, noted in profusion at Beaumont, were the delicate sulphur-yellow cream-cups (*Platystemon Californicus*), the popcorn flowers, *beris*, wild hyacinth (*Brodiaea capitata*), *nemophila insignis*, *orthocarpus*, *viola*, *sanicle*, *sidalcea malvaeflora* and last, but not least, *Eschscholtzia Californica*—the State floral emblem of California.

The Golden *Eschscholtzia* was here in the height of its beauty. Single plants would measure one to two feet high, and over a yard across. I estimated that one of these plants would bear over 500 flowers, and each flower that I measured was fully four inches in diameter or over, some measuring five inches! This was evidently the typical form, as the large,

snoculent roots are perennial. The intensely brilliant coloring of the flowers, words cannot depict, and the artist has yet to correctly imitate and do justice to the coloring. It is most nearly described as of a deep orange color, and yet, a touch of crimson or scarlet exists in its composition, which makes itself felt when a large field of the flowers are seen at a distance.

Single fields of this magnificent flower, hundreds of acres in extent, were observed, which, at a distance of 5 or 6 miles, were of a uniform vermilion hue—a lake of fire amid an emerald sea. Such a sight, viewed from near and from afar, is one never to be erased from memory, but the true artistic beauty of the flower is lost beside the magnificence of such a vast display of brilliant, rich but, uniform coloring.

From Beaumont to the White Water river is a gradual descent and one continuous garden of flowers with now and then an alternate field of grain. *Phacelia tanacetifolia*, with its heads of pale blue or rather lavender-colored flowers, lends color to the bushes that border the roadside. *Chia* (*Salvia caruacea*) grows in profusion in the fields, and conspicuous for its large, lavender-colored flowers. *Baerlas* and *Oenotheras*, pop-corn flowers, *Amoinklas*, *Lupinus* and *Gilias* form alternate spots of orange, lemon-yellow, blue or purple amid the green of wild oats, alfalfa, clover and grasses. Spikes of brilliant flowers of a species of *Delphinium*, of a rich Berlin blue, rise among the clumps of bushes, over which also the delicate *Megarhiza* vine with its clusters of white flowers trail in profusion.

Last but not least amid this vast garden of flowers rise the Spanish hayonets on every side, like sentinels of war on the western margin of desolate sand, rendering due tribute to spring in high clusters of waxy-white, bell-shaped flowers, that lend their sweetness to the busy bee.

Beyond stretch the iron rails, where no flowers are, and where wind and sand reign supreme.

San Diego, Cal.

C. R. ORCUTT.

## FORESTRY.

## Prof. Lemmon's Report on California Conifers.

The botanical portion of the 1890 report of the California State Board of Forestry is commented upon by *Garden and Forest* as follows:

An account of the true Pines of California appeared in the Second Report of the Board of Forestry of that State from the pen of the botanist of the board, Mr. J. G. Lemmon, who now supplements this with a paper on the other coniferous trees of the Pacific forest, which occupies the larger part of this third report and which is enriched with many admirable illustrations made from photographs of trees, forest-scenes, and fruiting branches of many of the species. In this paper, after some remarks upon conifers in general, their history and distribution, Mr. Lemmon describes their classification, and then proceeds to give an account of the different species (exclusive of the Pines) found in California, and in the regions of which California must be considered, from the botanical point of view, an integral part, that is, all the great territory of western America which extends north and west of the State. An account of the different species is preceded by notes on the genera to which they belong, and to this is added some information relating to species which occur entirely beyond the region. In the case of the Hemlock, for example, there is a short account of our eastern species, and of the Asiatic species of this genus; and under the Spruce, not only are the Pacific coast species described, but the White and Black Spruces of the east as well, the European Spruce, and some of the Japanese species. Changes in the generic and specific rank of a few trees are proposed. The Alpine Hemlock is here removed from *Tenga* and made to compose the genus *Hesperopice* (Engelmann's sectional name), a genus characterized by Mr. Lemmon by its alpine habitat, its cones, which are longer than those of any Hemlock Spruce, oblong-cylindrical, and two to three inches long, with numerous scales, nearly all of the same size, and reflexed at maturity, broader than long, four to eight lines wide, and striate with a thin, wavy, rounded border; by the small, spatulate bracts three to four lines long, by the angular seeds with resin vesicles, and elliptical wings three to six lines long, and linear scattered quadrangular leaves keeled above and below with a solitary and large resin duct. "The propriety," he says, in speaking of this tree, "if not the scientific necessity, of separating it from *Tenga* may be justified upon the ground that the conifer family is so large, and the necessity for dividing it into groups for convenience of comparison is so apparent, that comparatively slight differences (so they are fundamental) must be taken for generic distinctions"—a view of genera in which, we fancy, all students of conifers will hardly concur.

The large-cone Douglas fir of the mountains of Southern California, which Engelmann considered a variety of the widely distributed *Pseudotsuga taxifolia*, is now restored to specific rank under the name of *Pseudotsuga macrocarpa*, because the author recognizes "in it elements that certainly point to such separation. It must be borne in mind," he remarks,

"that the evidence of distinctness does not depend so much upon the number of characters as upon their permanence. Now the characters of this spruce are always uniform—no transition trees connect it to the other species; again, the other species is both north and south of it, particularly north. If this big-cone development is a recent variation, what has produced it? If a southern climate, why are not the Arizona and Mexican trees still larger cones? If a dwarf variety, why so prolific in fruit?" Mr. Lemmon, in a note, calls attention to the fact that when he visited the headquarters of this tree, in the San Bernardino mountains in 1876, "the cones of the preceding year's crop lay on the ground so abundantly that they were two or three feet deep under the trees—a degree of fecundity never observed in the taxifolia species."

The red fir of the Sierras (*Abies magnifica*) is well described, and the variety of Northern California, which so long puzzled botanists by its long, exerted cone-bracts, resembling those of *Abies nobilis* of Oregon, is described as the variety *Shastensis*. The peculiarity of this variety of fir, aside from its locality, is connected entirely with the fact of its cone-bracts becoming long and protruded, a half to a full inch between the scales, rendering the large purple cones, thus decked out with tasseled fringes, a most beautiful object. The trees of this variety, Mr. Lemmon tells us, are "very large and lofty, though not so immense and high-headed as in the typical southern form, but they become, on the southern slopes of Shasta, a dark, gloomy assemblage of massive black trunks, colored on the north side, from base to the limbs, with bright yellow lichens or tree moss; the lower limbs draped here and there with long sweeping festoons of black, filmy lichen, giving a funereal aspect to the whole scene, soars relieved by the twitter of a red squirrel, the long, wailing note of a woodpecker, or the occasional cry of a bald eagle." A second variety of this species is distinguished as variety *xanthocarpa*—"a smaller, less symmetrical tree than the typical, with smaller cones averaging four to five inches long, half as thick near the base, tapering slightly to the apex, and of a yellowish color." It is found in the high Sierras around Meadow lake, Sierra county, where, Mr. Lemmon tells us, it forms the greater part of the noble forest of that region.

Mr. Lemmon considers the white fir of the Sierras and of the mountains of Southern Oregon simply a somewhat modified form of *Abies grandis* of the Northwest coast "distinguished by having a rather rigid habit, the branches relatively shorter and stouter than those of *Abies grandis*. The young shoots are olive-green, the buds ovoid, the leaves dark-green above, whitened with stomata below (also with a few rows above), the leaves relatively very long—one and a half to two inches—nearly all of the same length, obtuse at the apex, not usually two-ranked except on lower branches, yet all are twisted half around at the base, which allows the light to reach through to the branchlets past the distorted leaves. It is, in fact, midway both in locality and in characters between the green-leaved and green cylindrical-coned *grandis* of the moist northern forests and the white-leaved and light-green elliptical-coned *concolor* of the southern arid interior regions." It is this tree which is called *Abies Loviana* in English plantations, and which, from a horticultural point of view, is very distinct from the species of the Northwest coast, although hardly distinguishable from the long-leaved form of the Rocky mountains.

It is not quite clear whether our author intends to consider the California Sierra tree one variety and the Colorado tree a second variety or not. He adopts for the California tree the name of *Abies grandis*, variety *Loviana*. If he considers it distinct from the *Abies concolor* of Colorado, his seems to be the correct name; but if he holds that there is really but one mountain form of *A. grandis* worthy of a distinct name, then this should be known as variety *concolor*, it having been named *Abies concolor* before the name of *Abies Loviana* was bestowed upon it.

Mr. Lemmon, in his very full and interesting description of the Big Trees, raises an interesting point as to the origin of the name Sequoia. The name was made by the Austrian botanist Endlicher, who published the genus in 1847, but, unfortunately, did not give the etymology of this name. It has been generally supposed that it was formed from the name of the half-breed Cherokee Indian, Sequoyah, a man distinguished in having invented a syllabic alphabet for his tribe. Gordon, however, in the second edition of his "Pinetum," published in 1875, states that the name was probably formed from "sequence, separated or following in order of succession after Taxodium, from which Prof. Endlicher separated it." Mr. Lemmon now says that Prof. Gray, at the time of his visit to the Pacific Coast in 1877, informed him that "the report of its being derived from Sequoyah the Cherokee was doubtless an afterthought; that undoubtedly Endlicher derived his name from aequi or aequor, alluding to the well-known fact that our redwoods are the followers or remnants of several colossal extinct species."

Further investigations do not throw much additional light on this subject, and the answers sent in reply to Mr. Lemmon's inquiries by a number of distinguished men are not very satisfactory in their conclusions. The venerable De Candolle writes: "The supposed origin of Sequoia from Sequoyah or Sequamal is entirely

fanciful. By the appearance of the name it is probable that it originated from or was taken up from some native word and written more or less correctly. Historically, it is a matter of regret, of course, that any doubt rests upon the origin of the name of the two trees which surpass all others in size and in the interest attached to the history of the genus to which they belong; but, after all," as De Candolle writes, "it matters little—a name is a name. The essential things are, first, that it be the expression of a natural genus; second, that it has not been employed before; and third, that the genus has not previously received another name."

Mr. Lemmon's paper contains, in convenient and acceptable form, a great amount of useful and interesting information, botanical, historical and economic, relating to the trees which compose the larger part of the Pacific Coast forests, and which make these forests the most wonderful and important forests of conifers known to man. It will be welcomed by all serious students of American trees, and will take its place in the permanent literature of the subject.

[We recently stated that copies of this report can be had (sending 10 cents to pay for mailing) by application to Prof. J. G. Lemmon, 1015 Clay St., Oakland. He can also supply a limited number of the Report of 1889, which contains his essay on the Pines of the Pacific Coast—not the "prices" of the Pacific Coast as the type had it in our issue of April 18th.—EDS. PRESS.]

## THE DAIRY.

## Notes on Grasses in Oregon.

Prof. F. T. Frensch, in Bulletin No. 11 of the Oregon Experiment Station, gives the following notes on grasses:

The varieties of grasses and clovers found growing on the college grounds have made good progress during the past year in nearly every instance. The yield of hay, cut from several of the plants, will be found in the table.

Of the Fescues, *Festuca Elatior* (Tall Fescue), is the most promising. There is very little difference between this grass and the *Festuca Pratensis* (English blue grass). The former, Tall Fescue, made a larger growth, but is rather coarse for the best quality of hay. These grasses grow in tufts or bunches, spreading slowly by the growth of these tufts. The *Festuca Pratensis* did not make as coarse a growth as the former, and for this reason we would place it first for hay. Both of these grasses are said to be very nutritious and readily eaten by stock. Of the smaller Fescue, the *F. durinacula* (Hard Fescue), gave a light yield of hay. This grass is better adapted to sow with a mixture for pasture. It is of little value for hay. The other Fescues have maintained a very good growth and are worthy of a trial for pasturage purposes.

Meadow foxtail and sweet vernal grass are both thinly set and do not spread very much. These would be more valuable when sown with other grasses, and would give better results for pasturage purposes. These varieties of grass mature earlier than any other varieties grown on the Station grounds; however, they do not maintain their vigor through the dry weather.

Orchard grass and tall oat grass mature about the same time and are among the most vigorous grasses grown on the experimental grounds. These grasses can be sown with clover successfully, for they mature at about the same time and add to the value of the hay. There is some criticism upon the orchard grass when grown exclusively for hay, from the fact that it is inclined to be coarse. No doubt this is mainly due to the fact that it is not generally cut early enough. This grass, like many other varieties, passes the point for making the best hay very quickly. When it begins to turn brown it is beyond the best stage for hay. If grown for hay this grass should be sown very thick, not less than 10 to 14 pounds of seed to the acre.

T. A. Cole, Madison county, N. Y., in the New York Tribune, says:

"After 20 years' experience, I have settled down upon orchard grass as possessing greater merits than any other, for both pasture and meadow, for fattening animals or for dairy stock. When cut for hay just before bloom, and cured with as little sun as possible, it will make more milk than any other variety known to me; if left to ripen, it is worthless."

Further notes on orchard grass will be found under remarks on pasture grasses.

Next to the orchard grass, perhaps, we would place the tall oat grass. This produced a large yield of hay, which, when cut at the proper stage, is of very good feeding value. Like the orchard grass, this grass should be cut early with no delay, for it changes very rapidly after blooming. For woodland pasture and for valley pasture as well, we believe the oat grass has many advantages, for it withstands long-continued drouth better than many of the finer growing sorts.

The matter of growing early maturing grasses becomes of very great importance throughout a large portion of the State. Those varieties which will grow rapidly and mature from the moisture which remains in the soil from the winter rains will be most successful. The growth of timothy, because of the lack of mois-



ture, was very materially checked last season. The growth of the red-tops, except on moist land, was also materially shortened by the lateness of the season at which they start to grow and reach maturity. Common red clover, which is several weeks earlier than the mammoth red clover, made a larger growth owing to the dry weather affecting the latter after the common red clover had reached maturity.

Such varieties should be grown as will reach maturity before the dry season begins. The average rainfall during the months of April, May and June, is very low throughout a large portion of the valley, and for this reason the moisture which remains over from the winter rains must constitute the principal source of moisture for plants.

The English or Perennial ryegrass made a larger growth than the Italian ryegrass, both on the white land and on the higher dark land; and the English ryegrass made an excellent second growth as well. Of the grasses which produce a good, firm sod on the white land, there are none which have done better than the *Agrostis Stolonifera* (creeping bent grass). This grass grows close to the ground, the stalks not reaching more than a foot in height at any time. The leaves are very fine, and the tufts spread rapidly, forming a thick mat which would withstand much treading by stock, no doubt. At this date, March 1st, there is no grass on the white land that produces a better sod than the creeping bent grass, hence for pasture purposes this grass is worthy of a more extended trial.

Texas bluegrass (*Poa Arachifera*) has made a good growth during the past year, and has spread very rapidly, until now it covers the entire plat, and is sending up shoots in the path which surrounds the plat. While the stalks sent up are thinly distributed over the plat, the ground is well covered with leaves, which grow at the base.

This grass starts early in the spring and maintains a green, fresh growth throughout the dry weather, and has kept green all winter. This variety of grass has proved valuable in some of the States where a hotter climate prevails; and so far, its indications are favorable for a pasture grass, throughout a large portion of this State. More seed has been procured, with a view of testing the value of this grass on a larger scale. The habit of this grass is to send out numerous shoots from the root stalks, thus enabling the plants to spread very rapidly.

Of the grasses which were grown on the white land, tall fescue gave the largest yield of hay, and mesquit next; but neither of these were as good in quality as orchard grass, oatgrass or redtop, all of which did fairly well. Hard fescue, Italian ryegrass and meadow foxtail are thin set, and did not give as large a yield as some others. *Avina Flavescens* (yellow oatgrass) has made a better sod on the white land than the tall oatgrass, and it starts earlier than the latter and keeps green later in the season. These grasses, which grow in tufts or bunches, would give better results if sown in a mixture; and, in fact, there are very few of the grasses that would not give better results if sown in this manner. A mixture of grasses makes a better quality of hay, and more pasture of a better quality, than when the same varieties are sown separately.

Timothy and Alsike clover, sown in mixture, made a good set, and yielded a large amount of hay of excellent quality. These were sown upon land just bordering on the white land. The Alsike clover matures later than the common red clover, hence is better adapted to sowing with timothy. There is a strong objection to sowing Alsike clover, from the fact that it is inclined to fall down and become entangled so much that it is difficult to cut and cure. The timothy helps to support the clover, thus preventing its falling on to the ground.

While the results of the plat experiments are valuable, as being indicative of more or less success in practice, yet definite conclusions can not be reached until a more thorough trial has been made in the field. For this reason a series of plats, consisting of several acres each, will be seeded with different varieties of grasses and clovers, and a mixture of these, to determine their value in a more practical way.

There has been some inquiry regarding the growth of alfalfa. Small plats were sown to alfalfa, but has not done as well as some of the clovers. The dry weather injured the alfalfa more than it did the common clovers. Throughout the valley, where the soils are undrained, and are what is termed heavy, I do not think alfalfa will be a success.

Five sheep were confined on some of the plats, at different intervals, to determine something regarding the power of the grasses to start again after close pasturing. Orchard grass possesses this requisite to a remarkable degree. This grass was pastured until there were no green leaves in sight, and then allowed to recover, which it did in about four weeks, producing an average growth of eight inches. It was again pastured to the ground, after which it was allowed to start, and it made an average growth this time of five inches, before being checked by the dry weather.

The mesquit, rye grasses, and the brome grasses were not so readily eaten as the other varieties which were pastured. While the tall fescue is a coarse grass it was closely cropped, and seemingly very much relished by the sheep. Sheep's fescue and meadow foxtail were only fairly well eaten, however, the latter was too far matured for the best results. The oat grasses were readily eaten, and put forth a very vigorous second growth.

This matter of testing grasses for pasturage is an important one, and one which we shall pursue further, hoping to reach results that will be of some benefit to those who are interested in producing good permanent pastures.

## THE FIELD

### Agricultural Production in the United States.

Hon. J. R. Dodge, Statistician of the Department of Agriculture, will soon issue in his April report an essay on "Permanency of Agricultural Production," to meet the views of some that the United States is approaching its limit of capacity for population. From advance sheets we quote as follows:

Some modern disciples of Malthus are wrestling with the limitation of production in this country. Some citizens of an adjoining country, of large superficial area in great proportion unoccupied, have sought to impress upon the popular mind, through our press, the idea of near approach of a "pressure of population upon subsistence," which has been in other countries the hush of an age of primitive and superficial agricultural cultivation. A corollary of this idea would be the necessity of enlarging our productive area by some form of dependence upon neighboring agricultural resources. It is natural that self-interest, coupled with a partial acquaintance with the natural resources of this country, should lead outsiders to take this view; but there is no such excuse for depreciation of the capabilities of rural production in the United States by citizens of this country.

Europe has four times as many people as the United States, and very few of the countries represented by this eastern continent fail to produce nearly or quite enough for their own subsistence. All Eastern Europe has an agricultural surplus, and Italy's exports equal her imports. Even the Netherlands, with only 2½ acres to each inhabitant, require only a few million of dollars' worth of agricultural imports in excess of agricultural exports. France requires from foreign sources only about seven per cent of her consumption for a population nine times as dense as ours. Insular and factory-studded Great Britain feeds one-half of her people from her soil, through a labor of one-eighth of her population, and her game preserves and pleasure grounds are enough to feed the other half if utilized for agricultural production.

It would seem to be an absurdity to claim a necessity of four times as much area to feed one person in this country as it requires in Europe, with whatever allowance may be necessary for more liberal dietary. The contention becomes the more unreasonable in view of the fact that half of the area of Europe could easily double its production under more general and higher cultivation.

Mr. Dodge then introduces arguments and statistics to prove first, that the surplus production is not unlimited; second, that the wheat surplus is not immediately exhaustible; third, that wheat production is not declining in Europe; fourth, that the Indian wheat scare is nearly over; fifth, that the wheat production of the world is not declining; sixth, that there is much danger in false statistics and irrelevant deduction. He concludes his paper as follows:

This country has not reached the limit of agricultural production. It has not even approached it. One-third of its area is either too dry or too wet for present cultivation, awaiting irrigation or drainage. Of the other two-thirds there is much not included in farms; its farm area is not all utilized, and the cultivated area may become far more productive.

Farm labor is not sufficiently effective; its distribution could be more harmonious and profitable. Prices of cereals have sometimes been reduced by oversupply. Cotton with a product of 22,000,000 bales in three years, a quantity greater than the production of six years prior to 1860, begins to decline in price. At the same time there is a failure to produce the sugar required, though there is cane land sufficient for an ample supply, and beet-sugar lands *ad libitum*, without mentioning the possibilities of sorghum. There might be tens of millions of dollars annually coined from various fibers, large extension of fruit-growing, and introduction of many economic plants to be made the basis of new industries. The material now produced for food consumption might be put in more attractive form for market, and a large contribution levied upon the gastronomic and aesthetic tastes of consumers.

It is not true that the wheat of the world is declining. It is not difficult to prove the existence of 2,300,000,000 bushels as an average, and there is no prospect of decrease. Annual fluctuations, from climatic causes, will produce variation in price, which the distribution of harvests of different climates through the year and increase of international transportation facilities will help to equalize. The United States will continue to produce a surplus for export, until the wheat culture of the plains shall have given place to more varied and profitable culture, and increasing numbers of non-agricultural population shall require for bread the entire crop.

It is proper to say that the tendency is toward a better distribution of crops, and to higher prices and greater profits. The propor-

tion of agricultural labor will decrease, non-agricultural will increase, agricultural production will be more varied, rural intelligence and skill will advance, and the farmer in better position to demand and secure an equitable share in the net proceeds of national industries.

### The Broom Corn Product.

In view of what was recently said in the *RURAL* about high prices for broom corn in this market and the market for our product in Australia, the following from the *American Cultivator* will be read with interest. In nearly every part of the United States broom corn can be grown successfully, and at a profit. It is, however, a business that requires more watching the market than any other connected with farming, for the prices fluctuate from fifty to several hundred dollars per ton. The grower should be able to hold his crop over until higher prices are ruling. Where it is grown as a business it is made to yield good profits, but only on good soil and with great labor.

Broom corn requires more warmth than Indian corn, and succeeds best on sandy soil when it is warmed by the sun. The land should be prepared in the fall or spring, and only such seed used as will sink when floated in water. The standard variety is the Evergreen, and when good seeds of this are obtained from reliable seedsmen a good crop may be anticipated. The dwarf varieties are only used for whisks and clothes brushes, and the demand is not so great for them. The planting and cultivation do not have as much effect on this crop as its harvesting and after-preparation. The seeds are planted in two ways: on very light, clean, rich land, in drills three feet apart; but on other land, in hills three and two feet apart, with six to eight stalks in the hill. The seeds then need a light covering and cultivation similar to Indian corn.

The time of harvesting is important. It must be cut before the seed has ripened, and yet not when it is too green. A good time for harvesting is when the blossoms fall. The brush then has a good color, and is the strongest and best for the market. Some farmers let it stand longer, and then use the seed for stock; but the gain in this does not equal the loss sustained in harvesting a poorer quality of brush. Before the stalks are cut they are tumbled. A man goes through the fields and breaks two rows, laying one across the other almost at right angles. The center then follows with his sharp knife, which is placed against the stalk about eight inches from the brush. As the stalks are cut they are carried from the field in wagons and scraped. The scraper is one or two-horse power, according to the size of the farm. In this scraping process all of the seeds are taken off, after which the brush is ready to be cured. This requires a shed or building through which the air can circulate freely. When green the stalks should be laid out very thinly, but as it grows dry it may be piled up more in heaps. So much depends on curing the brush that the price obtained for it may be doubled or trebled if it receives intelligent attention. If sheds are constructed for it the brush may be held over from year to year, and sold when the price is high. The facilities for doing this are essential to success in this work.

So far Illinois leads all of the States in growing broom corn, but New York and other States are rapidly following in this industry. The demand for broom corn has steadily increased in this country for the last 50 years, and with slight fluctuations the prices have also advanced. Successful culture of it, however, requires not a little study of the conditions and necessities of the market, with a pretty practical knowledge of the plants and their special needs. It is a crop that cannot very well be cultivated along with other farm products.

## HORTICULTURE.

### Prune-Growing in Washington.

E. J. Estep writes for the *Olympia Tribune* as follows: It is only within four or five years that any definite knowledge of the ability of this part of the country to produce prunes of a high commercial value has been demonstrated. It is true that it has been much longer than that since prunes and plums of a great many varieties have been raised here and in Oregon, but it is only of late years that any definite knowledge of the varieties, kinds of soil and climatic conditions have been attained.

The earliest experiments were made on the Columbia river, mostly in Clarke county, where the largest commercial orchards are now located. But from an experience of ten years on the Sound, I have no hesitation in pronouncing this section of the State equal to the best prune lands in Clarke county.

About nine years ago, I planted an orchard of plums and prunes, three miles from Olympia, on Budd's inlet. The land is what is known as shot clay, that is, clay intermixed with small stones about the size of shot. Without any former experience at all, it is not any wonder that I should commit the very common blunder of having too many varieties; not but that all kinds grew and produced abundantly, but there is a vast difference in the commercial value as to varieties, and those planting orchards from now on will have the experience of those of us that have gone before, and need not repeat those mistakes.

### Varieties.

Experience has reduced the number to three, though some growers say one. I will mention them in the order of their merit: "Italian," "French" (Petite d'Agen), "Silver," or Coo's Golden Drop. The "Italian" is pre-eminent the prune for this country. It outranks in quality any other prune, foreign or domestic. It always brings from two to three cents per pound more than any other variety, except the Silver prune. So far as known, this is the only part of the United States where this variety is grown to perfection. California, the only State that produces prunes in any appreciable quantity, does not produce this variety. The tree is one of the hardest, and out of 250 trees of that variety, I only lost two or three.

The "French Prune."—This variety is the one almost entirely planted in California now. It does not bring the price the Italian does, but still can be recommended in a degree for other reasons, mainly because they are ripe and can be run through the drier before the Italian prune comes on. I had about 100 trees of this variety, but from the fact that my orchard was located immediately on tide water, the fruit had the bad habit of hursting open before ripe. But I notice trees of this variety two or three miles from the water do not have this habit.

The Silver Prune.—This prune is the largest of all. The highest rating I have ever noticed of imported French prunes was "60's," (that is 60 cents to the pound). I have now silver prunes grown last year that will not go over 25 or 30 prunes to the pound. This prune brings the highest price of any, but its planting cannot be recommended except in small proportion for the reason that the trees are not hardy. They are swift, rapid growers, and grow so late in the season that the frost splits the bark of the trunk and either kills or partially kills the tree. However, if the tree gets over the first two or three years it is about safe. But undoubtedly time and further experience will entirely overcome this difficulty. This prune has the further advantage of being later still than the Italian, thereby lengthening the season.

### Soil, Etc.

The best soil is either shot clay or clay with some sand intermixed, and if the subsoil is clear sand, all the better, for the reason that the drainage would be perfect. It is of prime importance that the soil should be dry; that is, have reasonable natural drainage. There are thousands of acres in Thurston county that would fulfil these conditions.

The first expense is the clearing of the land. This is a costly business here, and any one who thinks it too big a job for him had better go into some other business. The first plowing must be done with a big team and go deep. It would probably not be an over estimate, on an average, to place the cost of planting an orchard at \$250 per acre. This includes cost of land, clearing, plowing and cost of trees and planting. The orchard once planted, it will pay its way by raising something between the trees, until they come into bearing. Anything that requires cultivation will do.

Seasons vary some here, but not much. There will be a crop every year. Taking one year with another, it is a moderate estimate to place the average crop of dried prunes at one ton per acre. My orchard last year (eight years old) did something better than that. At the prices last year, 10½ cents per pound, by the ton, this yields over \$200 per acre; or say a net profit of \$150 per acre. It costs no more to cultivate and take care of an acre of prunes than it does an acre of corn. The only additional cost is drying and boxing.

### Whitewashing Fruit Trees.

EDITORS PRESS:—Please tell me regarding the whitewashing fruit trees; is it considered to be beneficial or otherwise. Any light given will be appreciated by  
Kirkwood, Cal.  
L. R. EARNESTINE.

It is useful in preventing sunburn and possibly may have some good effect on insects. The subject has been considerably discussed in the *RURAL* and the weight of opinion is in favor of whitewashing. C. J. Barry, a farmer in Tulare county has been troubled by having borers attack his fruit trees. In a communication to the *Visalia Times* he claims that he has found a remedy and concluded by saying that he has tried it successfully for the past five years. Following is the remedy: "Take one pound of whale oil soap and dissolve in one gallon of water and add whitening enough to make a good white wash, and then applying to the body of your trees from the forks down to the surface of the ground, you will not be troubled with borers or sunburn. Your trees will grow symmetrical, and you will be entirely satisfied with this remedy."

This prescription has been largely used by other fruit-growers and widely approved.

### Walnut on Oak.

EDITORS PRESS:—It has been stated in several papers that a man in San Diego has successfully grafted the English walnut on the oaks that grow in the foothills. Please oblige a subscriber by stating in your valuable journal whether it is a botanical possibility.—JOHN W. FRETWELL, Parkfield.

Theoretically it is impossible, or at least improbable, but actual practice sometimes accomplishes things not in accord with theory. Who can tell what has actually been in the direction mentioned by our correspondent?



## PATRONS OF HUSBANDRY.

## Our Grange Edition.

The Grange news of most general interest is given through all editions of our paper on this page. Several supplemental pages, devoted to Grange interests, are added in our Grange edition, which any subscriber can receive in lieu of the regular edition without extra cost, by addressing the publishers.

## The Master's Desk.

R. W. DAVIS, W. M. S. G. OF CALIFORNIA.

Better leave unsaid that harsh word.

Softly spoken words are like rays of sunshine. Whether or not we see the work begin, the result will soon show.

Do some good. It will be an item in your favor when the account is closed. A credit item is a safe item in a settlement. Sure it is.

A fine horse is sold on his record, and the better the record, the larger the price paid. Why not size up men by their records? If we did, don't you know a lot of our big Statesmen would sell for a small sum?

Better to be right and not do, than to do and not be right.

Be as a ray of sunshine every day.

It was no fault of the W. M. that no words appeared from his desk in last week's RURAL. The manuscript was mailed in due time. Possibly the coming of the President and the Postmaster-General may have "rattled" the railway mail clerks. One thing is sure—the coming of the Secretary of Agriculture did not annoy the Grangers. Let us hope that hereafter there will be no delays.

Let every farmer who wants to see the producer elevated in the social, financial and political world, subscribe for and read a good Grange paper. Help the editor who helps the farmer. Take the RURAL. It ought to be in your house. You can profit by its perusal. Write for it, and ask your wife, sons, daughters and neighbors to do so, too. Let them all read it.

"We propose buying together" (Declaration of Purpose). Have you tried the Trade Card Plan? Do you know how to purchase by the means of that "little card"? If you don't want to go in person, let the Secretary of your Grange "hulk" your orders, take the money, and order under seal of the Grange. There is some good sure to follow the honest and prompt use of the "Trade-Card Plan."

Improvement is the watchword. Can you suggest ways and means for improvement? Tell us how to farm more successfully; how to live more satisfactorily; how to educate more thoroughly; how to run Government more prudently; how to extend the power and influence of the Grange more widely; how to be more useful and more progressive. In short, tell us all you can about improvement.

There are a great many wrongs to be righted. Can any one do more to make equal and fair laws than the husbandmen of the land?

How the new leaves on the trees glisten with these April showers and this spring sunshine! Have you noticed them? If not, why not?

Petaluma is soon to have a Grange.

Two Rock Grange is to celebrate FLORA'S DAY, Thursday, May 7, 1891.

Do you know that each subordinate Grange proclaims its purposes, in Faith, in Hope, in Charity and with Fidelity.

The Grange wants to do away with any fashion, or custom, that tends to prodigality.

Sonoma County Pomona Grange has appointed a committee to arrange for a Farmers' Institute at an early date.

Are you going to the Oregon State Grange session.

Standing committees for next session of State Grange are announced in this issue of the RURAL. See if your name is on the list. If so, prepare at once for the work. Don't say you can't serve. Just huckle on the harness and try.

If you will read, recite, sing, declaim or prepare an essay for the State Grange, please notify Miss Josie Sharal, at Hayward, Cal. She is chair(woman) of the Literary Committee.

Be sure to avoid intemperance. All Patrons are taught to be temperate in eating, drinking and language.

Do you help the fatherless and the widow? Remember them in your hours of joy and plenty.

Santa Rosa Grange has lost one of its truest and most progressive Patrons. In the death of Bro. E. A. Rogers, a Past Master of Santa Rosa Grange, the long chain of its Past Mas-

ters is broken. Bro. Rogers is the first one of those who have filled that chair to pass to the silent land. He was a progressive, sincere, faithful, zealous and devoted Patron. His love for the Grange knew no limit. His willingness to sacrifice any personal pleasure for the Good of the Order was unprecedented. A regular and interested attendant of all the meetings, his place will long be vacant. Truly, we shall miss him. The family, all of whom are members of the Order, have our love, sympathy and prayers. We shall emulate his example, and always remember his many virtues and kind words.

## Remember Floral Day.

EDITORS PRESS:—"Floral Day" is rapidly approaching, and I wish to ask sisters through the PRESS if they have prepared some tribute in the way of a happy thought—an article upon the decoration of our beautiful garden, the Grange hall, a suggestion upon the care of these priceless gifts from our Master above, or, better still, are you able to give to your brothers and sisters of the Order some of the good advice that you receive every day from these silent though eloquent messengers? Who will favor us with an essay on the career of Flora of old, that Italian diety whose court was ever a bower of beautiful flowers which teach us nothing but what is elevating and good? Will our Worthy Lady Assistant Steward kindly tell us all about her "flower show of last fall"? I was not fortunate enough to visit it myself, and know that others who shared my fate would be well pleased with a description from her able pen. Sister Ceres always has a pleasant smile and cheerful word for the "bud and bloom" as well as for the matured "grain" of our Grange. Sister Pomona, we have no fruit in the summer that does not bloom in the spring. Have you the germ of some sweet "thought flower"? A word from you is always received with interest. What a charming bouquet will be presented on this happy day, when each contributes thoughts and ideas! Do not say you lack a subject, for is the very air not heavily laden with the rich perfume of the thousands and thousands of beautiful wild flowers of the field? And remember each little flower has a legend attached to it; even the modest little four-leaf clover has a beautiful history, if we will but interest ourselves enough to look for it—the story, I mean, not the four-leaf. What maiden does not search diligently for this symbol of love and constancy? Our Worthy Master, it seems, could not wait for the day set apart by the Grange, for we are told that he has already plucked one of Sonoma's fairest young roses for himself alone, and as we send our congratulations to him, let us hope that he will keep this fair flower ever fresh and bright, shielding it from the rough winds and biting frosts of life.

MATTIE U. JOHNSTON,

Flora Cal. State Grange.

Sacramento April 21.

## How to Get to Tulare Grange Picnic.

EDITORS PRESS:—If arrangements are not made for special train to the picnic, then all who come by railroad will find it much better to go to Tulare as the grove is about 2½ miles from that place and seven or eight miles from Visalia. Bro. Albert Wood, at Tulare, will look after Patrons from abroad who will make their whereabouts known to him.

There will be sports of various kinds for which a premium will be given to the best. There will be dancing between times, also at night, a convenient building having been engaged for that purpose close to Tulare.—Fraternally,

E. C. SHOEMAKER.

Visalia April 25.

## March Grange Open Meeting.

March Grange, Pennington, Sutter county will hold an open meeting and harvest feast on Saturday, May 9, 1891. Bro. B. F. Frisbie, State Deputy, will be present and confer the third and fourth degree upon a class. Grange will convene at 10 A. M. The feast and afternoon meeting will be public. Members of neighboring Granges are cordially invited to attend.

JAS. MYERS, Master.

Gridley, Cal. April 28 1891

## Danville Grange.

EDITORS PRESS:—An invitation has been sent to Eden and Temescal Granges and Contra Costa Granges, to meet with Danville Grange, Saturday, May 16th. W. M., Davis of State Grange will speak. A Harvest feast will follow. Grange will open at 10 A. M. In the afternoon an open meeting will be held. Fraternaly,

J. C. BALDWIN,

Danville, April 21. Sec. Danville Grange.

GRIDLEY GRANGE held a meeting on April 18, at which time there was work in the fourth degree. There were three initiations namely, John Traynor, J. S. Crane and Mr. Robinson. After the initiations the lodge adjourned to the banquet hall where the ladies had prepared a grand "feed." There were about 60 members of the Live Oak Grange present, and all expressed themselves in glowing terms of the manner in which they were entertained. The Grange is in a prosperous condition and the future prospects look very bright.—Gridley Herald.

## A Pen Sketch of Flora Day.

EDITORS PRESS:—Watsonville Grange held another of those enjoyable meetings, so in keeping with the advanced spirit of the age, so much in harmony with the organic laws of the order, and so far reaching in beneficial effects to every individual honored by the name of Patron. The occasion was the celebration of Flora Day. The program being somewhat out of the ordinary, perhaps a detailed description may lend a thought to the inquiring mind of some other Grange, which may result in as pleasant a day to them as this proved to us. The hall was profusely decorated with flowers, flowers, flowers everywhere, beds and banks and clusters, which the magic hand and ready genius of woman had deftly woven into innumerable shapes and forms of grace and loveliness. Flora's throne was something to be seen and never forgotten.

A high canopy of crimson curtains and flowers formed the first arch, the second being a beautiful crescent of Calla lilies, while her anchor of California popples occupied a position nearly in front. At the appointed time Flora (Miss Susie Cowles) arrayed in her Grecian robes, and supported by 20 young ladies in white, wearing floral crowns, entered the hall, and to the inspiring strains of a grand march, approached the position arranged for her coronation. This interesting ceremony was performed by the maids of honor with appropriate remarks from each. After being crowned, Flora, bearing a beautiful scepter which had been presented to her, was led to her throne, and there in a neat and instructive address thanked the Grange for its homage, after which the Grange band discoursed its sweetest music. The officers, Trustees and Past Masters then repaired to the ante-room, and forming in a line of twos led by the Gate-keeper and Assistant Steward marched into the hall, counter-marched through the arches formed by the implements of the Assistant Steward, finally reached the position of Flora, and opening to the right, left the Assistant Steward guarding the goddess with the Steward and Gate-keeper in close support, all with their decorated implements in hand. The Master now stepped to one side of the throne, called up the Grange, and spoke as follows: "Worthy Flora, from out your flowery realms of beauty we greet you. We salute you with the pure flowers of faith, the bright flowers of hope, the sweet flowers of charity, the everlasting flowers of perseverance, and the undying flowers of fidelity, the flowers of the long ago, the sweet forget-me-nots of justice, so carefully planted and so tenderly nurtured by the beautiful Grange have blossomed into the exalted flowers of the manhood and womanhood which to-day honors you—not alone as the Goddess of Flowers, but as a type of that precious flower revered by us, pure, glorious, affectionate woman; that flower on which, as an anchor of hope, we entwined our dearest treasures, our most sacred sentiments, our earthly all and our blissful flowers of futurity. Ever cherishing in our hearts the kindest feelings to all, with malice nor envy toward none, we honor you as a representative of your sex—one of the cornerstones of the matchless Grange, which ever supports woman with its budding flowers of friendship, its blossoming flowers of love and its fruiting flowers of equality and honor. Sisters and brothers, these being our sentiments, let us exemplify them as becomes the Grange."

Here grand honors were given by all, after which the lines were again formed and the march resumed to the outer gate. The Grange Glee Club, catching the enchantment of the hour, now broke in and captured the large and appreciative audience by one of their most soul-stirring songs. The song with the cheers it produced had scarcely subsided when the enthusiastic band, not to be outdone, launched a very tempest of hewitching music. The Glee Club now appeared costumed as sunflowers, and with appropriate song and action acquitted themselves so creditably that they were roundly encored.

Like the audience, I have been so interested in the Love Feast as to almost forget the Harvest Feast—but no matter; that needs no description. Songs, instrumental music, recitations and addresses made up the balance of the program, which will be long and pleasantly remembered by all classes of our people.

Numerous applications for membership were received. This is the beginning of a series of meetings, which will only culminate in the celebration of our Natal Day—Dec. 4th—planned in June, Pomona Day and Patriotic Day in July, Ceres Day in September, with regular entertainments and practical discussions at each meeting, not to mention occasional Harvest Feasts. If any person thinks this Grange is not living up to its motto "No drones in our busy hive," we cordially invite them to visit us and give us a thorough waking up; and if there is any one so benighted as to think the Grange "don't pay," it must be some one who cannot compute compound interest, and compounded every day at that.

INVITED GUEST.

Watsonville, April 27th.

Bro. A. P. ROACHE writes: "The State Chairman of Woman's Work has received contributions from several Granges for the Nebraska sufferers. Santa Rosa Grange heads the list."

## Standing Committees.

In accordance with a resolution of the State Grange of California, the following announcement of members of standing committees is made. If there are any persons named who find it impossible to serve, I hope they will at once notify me, so that some one else may be appointed. But let no trivial excuses, no ordinary circumstance, no belief that some one else can do better, prevent any one from serving. These Patrons have been chosen from all sections of the State, hoping thereby to have every interest represented. Patrons throughout the State are invited to correspond with the chairman of each of these committees, and submit suggestions, in writing, at once, or at least some time prior to the meeting of the State Grange.

It will be noticed that no elective officer of the State Grange has been placed on a standing committee. It is believed this is for the Good of the Order, as, during the sessions of the State Grange, the officers have many duties to perform in the hall and in entertaining and receiving visiting Patrons, as well as in preparing for degree work.

In this connection, it is well to state that all persons who may be willing to assist in the literary and musical part of our program should communicate, before it is too late, with the Chairman—Sister Josie Sharal, at Hayward—of the Literary Committee.

I hope these committees will do the work expected of good, faithful Patrons, and that each committee will be ready to report at the first opportunity when the State Grange shall have convened at Hayward, October 6, 1891.

## Committees.

DIVISION OF LABOR.—Bros. W. L. Overhiser, W. F. Bryan, J. P. Whittaker; Sisters S. E. Wood, Annie M. Sill.

CREDENTIALS.—Bros. J. D. Hoffman, James Myers, Samuel Gladney, Sisters H. A. Stinson, Mary E. Donaldson.

FINANCE.—Bro. Fay Raymond, L. C. Wittmeyer, W. D. Woodworth, Sisters W. W. Kilgore, Amos Adams.

GOOD OF ORDER.—Bro. Wm. Johnston, A. T. Perkins, A. M. D. McIntosh, Sisters A. P. Roache, Hattie S. Jones.

CO-OPERATION.—Bro. Daniel Flint, A. P. Martin, Amos Adams, Sisters T. McConnell, W. L. Overhiser.

RESOLUTIONS.—Bros. S. T. Conlter, E. Greer, J. W. Montgomery, Sisters B. C. Glantvalley, Olive Allen.

CONSTITUTION AND BY-LAWS.—Bros. I. C. Steele, C. T. Pettit, E. B. Owens, Sisters Wm. Johnston, Daniel Flint.

LEGISLATION.—Bros. D. A. Ostrom, J. D. Hoffman, Wm. Johnston, S. T. Conlter, E. Greer, J. H. McKens.

LITERARY.—Sisters Sharal, Jennie McConnell, Nettie Brouse, Josie Roache, Alice Greenlaw, Rachael Conlter, S. H. Dwyer, Bros. J. D. Hoffman, E. C. Shoemaker, S. Sherwood, L. H. Applegate, G. N. Sanborn, G. F. Myrick, Julius Hollister.

## Why Reorganizing the Buckeye Grange Was Deferred.

EDITORS PRESS:—Special Deputy F. B. Logan called a public meeting at Winters on April 16th, to consider the matter of reorganizing the old Buckeye Grange. Worthy District Deputy B. F. Frisbie of Yuba City was present and delivered an entertaining address. Upon canvassing the house, as barely the number willing to organize was present, it was decided best to adjourn to a date when a larger number of proper persons could be enlisted in the movement. On Bro. Logan's return from Vacaville, where he had met with encouraging success in instituting a new Grange, he again went to work to reorganize the Grange here, and succeeded in having 19 persons sign the petition. At the second meeting, which was called for this afternoon, most of the petitioners were present, but it was the opinion of the old members to defer organizing for fear sufficient interest could not be kept up with the Farmers' Alliance in the field at the same time.

My chief object in making the above explanation is to exonerate Bro. Logan from any adverse criticism, which might possibly be made, in not having done everything he could to revive the Grange. Had he been here one month ago and labored as faithfully for this object, there is no doubt but he would have succeeded. While there should be no rivalry between the two organizations above named, it is nevertheless a fact that some who have united with the one will not join the other, thus reducing the available material for each.

Having been an old-time member of the Grange, and still interested in its prosperity, and at the same time Secretary of our sub-Alliance, I am prepared to wish both Orders a hearty godspeed.

V. MORRIS.

Winters, April 25.

## Grange Picnics.

Name.	Place.	Date.
Tulare	Cent'l Grove	Sat., May 9.
Sutter Co. Granges	Yuba City	Friday, May 1.
Placer Co. Granges	Loomis	Thurs., May 14.
Sonoma Co. Granges	Bennett Val.	Sat., June 27.
Lockeford	Lockeford	Wed., May 13.

Notices of other picnics will be added to the above list when received.



## FARMERS' ALLIANCE.

## Alliance Edition.

Subscribers can receive our FARMERS' ALLIANCE EDITION WITHOUT EXTRA COST, by applying for the same. That edition contains several supplemental pages of Alliance matter, in addition to that which appears on this page through all editions.

## From State Organizer Col. Barbee.

EDITORS PRESS:—Once more I am home, and to-day, after a long absence from my wife and daughter, am enjoying their sweet society. Notwithstanding I have been absent nearly one year in this great work of reform, yet there is "no place like home" to me, and no society like that of my family.

I have borne the heat of the mid-summer sun in the San Joaquin valley, and the rain and the cold of Northern California winter. And not for money, "loaves and fishes; neither for honor and vain glory, neither has it been in the interest of or against either of the old parties, but from a sense of duty I owe to my fellow-beings, the people of the Golden State, whose sunshine or shadow will be my earthly abiding place. I have never been a politician; neither have I held a public office, nor been defeated for one; and while I could time and again have held offices of distinction and trust, I have invariably refused, preferring the pleasure and quiet of home to the vain, shadowy and uncertain honors of public life. In the work I have done for my State, I have only performed my duty, for which I ask nothing and expect nothing from California except a just recognition of the rights of the farmer, the mechanic and the day laborer. This we ask from every political party. We demand "equal rights to all and special privileges to none," nothing more, nothing less. At last

## Hayseeders Are Aroused.

They have awakened from more than a "Rip Van Winkle" sleep; they realize that patience has ceased to be a virtue, and now "swear by the eternal" that taxation without representation is not only wrong and unjust, but must cease. We are non-partisan, strictly so; we demand justice, and that of both old political parties, we ask honest men to represent us; we demand that hayseeders be heard, and ask it only through the watch words of our order, "truth, justice and equity." Will they be heeded, or will they continue to "rule or ruin?" thus forcing upon the people the necessity of a third party. The work that has been done in one short year in California should admonish the old parties to be careful, go slow, and tramp lightly on the rights of the farmer. The following

## Account of One Year's Work.

Means something. "He that hath ears to hear, let him hear" what the Farmers' Alliance say.

Less than one year ago, or on May 3, 1890, the first County Alliance (Santa Barbara) was organized. The first sub-Alliance was formed April 11, 1890 with eight members. The following County Alliances, beginning with 1st, Santa Barbara and following up in regular order as they were organized are as follows: 21, San Luis Obispo; 31, Monterey; 4th, Fresno; 5th, Tulare; 6th, Ventura; 7th, San Benito; 8th, Los Angeles; 9th, Santa Clara; 10th, Yolo; 11th, Merced; 12th, Stanislaus; 13th, Colusa; 14th, Santa Cruz; 15th, Orange; 16th, San Joaquin; 17th, Sonoma; 18th, Alameda; 19th, Humboldt; 20th, Sacramento; 21st, San Diego; 22d, Sutter; 23d, Butte; 24th, Contra Costa; 25th, Placer; 26th, San Bernardino; 27th, Calaveras; 28th, Amador; 29th, Solano, with other counties ready to come in and the remaining counties calling for organizers.

Bros. Hines and Osborn go this week to Napa, Marin, Lake and Mendocino, Burdette Cornell takes charge of Yuba and Nevada; Town of El Dorado, Cook of Tuolumne and Mariposa, and I learn Bro. Elliott will take charge of Tehama. This means that every county in the State will send delegates to the State Alliance in Los Angeles on Oct. 20, 1891. On April 11, 1890, there were eight members and on May 3d one County Alliance; now there are 29 County Alliances and a membership of 25,000. This means that the next State Convention will represent a membership of over 50,000. Does this indicate anything or not? Answer it, ye members of the last Legislature. Let them not forget that the Farmers' Alliance in California is asking for just recognition, that is all, and nothing short will satisfy.

Hear ye not the voice of the people: Prepare ye the way of the "Farmers' Alliance and Industrial Union" for 1892, asking justice! only justice!! from the rich and powerful organized "few." I leave the

## Farmers' Alliance Field

In fine working order. Everything is in a most prosperous and promising condition. Everything is very hopeful indeed. All along the line, from San Diego Co. to Tehama Co., I have found good and true men who would have gladly joined us, but were not eligible on account of business interests. I told them, "at a more convenient season, I would call for them; and now that the Farmers' Alliance is a 'fixity' and here to stay, I would say to those I left, that I am now conductor on the 'National Citizens' Alliance train, and will stop at



MRS. J. KINNEAR, CHAPLAIN F. A. &amp; I. U.

all the principal stations in the State, and take in all who were left by the Farm train. The Citizens' Alliance train has a wide, solid and safe platform, with ample accommodations for all honest men in the State. The managers of the road have issued orders forbidding the sale of tickets to political bosses or sorehead politicians, which orders will be carried out to the letter.

## The F. A. &amp; I. U. Work

Is booming in Washington and Oregon, and Bro. Turner writes they will be in the Union inside of 90 days.

Bro. Wardall of Dakota writes that he has just organized the State Alliances of Minnesota and Iowa, and from a visit to the Texas State Alliance he will return to his home by way of California.

President Polk will visit us and deliver a number of lectures in the State, followed later on by Gen. Weaver and Senator Peffer and maybe the Sockless Jerry Simpson. Hon. J. N. Harden of South Dakota writes me that he is in the National Lecturer's Bureau, and is ready to visit us when we so desire. Bro. Harden has been in the harness in Kansas and Dakota for six years. He is a devoted worker and a fine lecturer. He and his wife were delegates to Ocala, and it was there I had the pleasure of hearing him speak. As I will be on the wing in a few days again, all mail to this place will be promptly forwarded.

JO. S. BARBEE,

National Organizer Citizens' Alliance.  
Santa Barbara.

## Mrs. J. Kinnear, Chaplain.

Among the representative members of the Order gathered together at San Jose last November to organize the State Farmers' Alliance we were pleased to meet a number of able and faithful assisting matrons, several of whom on divers occasions, during extended discussions, seemed to possess just the right kind of mother wit to say in the nick of time the very thing wanted to settle perplexing questions.

In the selection of State officers for leading the work until the next annual session, the sisters were not slighted in offers of positions, but some shrank from the duties involved, and Sister Kinnear, who was unanimously elected Chaplain, stands as the only representative of her sex in the grand list of officers of the State of California.

Her husband, who lives at Modesto, is a long-time subscriber to the PACIFIC RURAL PRESS, and so Sister Kinnear is one of its best readers and friends. She also takes an active part in the anti-saloon cause. From all we have seen and can hear, she is certainly a most worthy representative of the official ranks of the Alliance in California.

Sister Kinnear, whose maiden name was Jacobina Lawrence, was born at Sackville, New Brunswick, in 1839. Her father, George Lawrence, was a farmer, on whose place she grew to womanhood. After her school days she followed dressmaking for several years. Being of an ambitious turn, she decided to come to this State (California), arriving in San Francisco early in 1866, where she worked a few days; then, at the earnest request of relatives to visit them at San Jose, she went to the latter place and remained several months. At San Jose, on Dec. 18, 1866, she married James Kinnear, a young farmer. They lived in Santa Clara county up to 1868, when they moved to San Mateo county, living there till 1879, when Stanislaus county became their residence, where they continued to live. From a private note we take the liberty to excerpt the following:

"I was a farmer's daughter and a farmer's wife all my life. I am the mother of five chil-

dren, three sons and two daughters, four of whom are grown.

"I have always been a warm advocate of the temperance cause, a worker and supporter of the church, and also a supporter of the RURAL PRESS since its birth."

## Tulare County Alliance.

Among the resolutions reported by the committee and adopted by the Tulare Co Alliance says the *Farm View* was one indorsing the action of the Legislature in submitting to popular vote at the next general election, the question of electing U. S. Senators by direct vote of the people. The new Australian ballot law and the law for the semi-annual payment of taxes were also indorsed and the belief expressed that these measures had been secured by the influence of the F. A. & I. U. A committee was appointed to consider the proposition to form an Alliance real estate agency, to co-operate with similar agencies in the East, for the sale and exchange of property, and the County Business agent was authorized to act for the present in receiving applications for the sale or purchase of lands by members. It was resolved that in government ownership of the telegraphs and control of railroads, lay the true solution of the transportation problem; and that it is the duty of the government to foreclose all liens, declare forfeited all unearned franchises, and take possession of the roads and rolling stock for debts long overdue and unpaid. In consideration of the rapid increase of membership a resolution was adopted, placing the basis of representation of sub-Alliances in the County Alliance, at one delegate for the charter and one for each twenty members and majority fraction thereof.

## State Lecturer on Wheels.

We are glad to see, according to the appointments announced last week by Bro. Gallup, that our Worthy State Lecturer has been called out for a series of lectures. This is right. We hope he will be called for in all parts of the State until his time is pretty well occupied. It may be a little hard for Sister Gilbert, but it will be good for the Order. We want Bro. Gilbert to give us a written mention of every place and meeting held, and, besides that, we want some good brother or sister to tell us what Bro. Gilbert says, reporting his good conduct, etc.

STATE LECTURER J. L. GILBERT will speak at Dixon on Wednesday of this week, at Winters on Thursday, April 30th, and will speak on Saturday, May 2d, at Dunnigan, Yolo county. At the latter place they are to hold a large picnic. We ask for Bro. Gilbert a large attendance, well knowing that no one will regret having heard him. On May 25th he will speak at San Jose, and we hope neighboring Alliances will not fail to turn out at the meeting. He will do the cause good. We would like to see arrangements made to have a county meeting in Alameda county held on or about May 23d or 26th, either at Irvington or Niles.

SOLANO COUNTY Organizer, Bro. T. A. Gallup, writes: "Will you make the change in the meeting at Egbert schoolhouse, about five miles northwest of Rio Vista, to May 7th. It was set for May 5th."

BRO. BURDETTE CORNELL will speak at Stockton on Saturday, May 2d, and address the Alliance picnic to be held at Lodi, on May 6th. We bespeak for Bro. Cornell a large attendance at both places.

## The President's Gavel Taps.

[MARION CANNON, Pres. Cal. State F. A. & I. U., Ventura, Cal.]

EDITORS PRESS:—I send herewith some rulings in accordance with my promise when in San Francisco, that I would from time to time send you for publication, some of the many sent out from this office, that the members in this State may see and profit by them without writing so many letters to me upon these questions. I shall only send you such as are of general interest to the Alliances in this State, leaving the many local questions to be answered in the usual way.

A question comes up from Monterey county: "Can the County Alliance deprive the officers of that body of the right to vote on all questions coming before them?"

No. The officers of a County Alliance are as much a part of that body as the delegates elected by the sub-Alliances, and are of more importance to the good government of the Order than the other delegates, for it almost always happens that the most intelligent delegates are elected to rule over the county legislative bodies, and it would be absurd to say that they were not to be trusted.

From San Luis Obispo county comes this question:

"Can the President of a sub-Alliance give the password to a visiting brother, when he produces vouchers under seal that he is in good standing?"

No. Sec. 5, Art. 5, of Constitution defining the duties of the State Secretary reads: "To distribute the semi-annual password to the Secretary of each County Alliance, who shall distribute it to the President of each Farmers' sub-Alliance, who shall give it to the members of his Alliance, and this password shall be given in no other manner." By this section the President can give it only to his Alliance members, and he cannot give it to "visiting" brothers. This password is not only a test of membership, but it is also evidence that the brother having it has paid his quarterly dues, because the President cannot give it to his own members until their dues are paid.

From Sacramento county comes this question: "Upon the death of the President can the Vice President, who is a young lady, appoint committees and preside over the County Alliance?"

Yes. It is her duty to assume all the duties and responsibilities, as well as the honors, of that important office. I have learned, however, that at the last meeting of the County Alliance she took a seat on the left of a man who was called to preside. This was wrong. She should have seized the gavel and wielded it over their deliberations, if for no other reason than to vindicate her own sex. Yours fraternally,  
MARION CANNON.  
Ventura, April 23, 1891.

EDITORS PRESS:—There has come up from Colusa Co. the following question:

Who has the authority to dismiss ineligible members who have been initiated into the Order by the Organizers?

This question has caused more discussion than any other in the sub-Alliances, and I therefore hope to make the situation so plain that there will be less wrangling over it hereafter. In Sec. 2, Art. VIII, of the National Constitution, we read: "It shall be the duty of the Supreme Council to enact a uniform eligibility clause for the various State Constitutions, also to enact laws defining the eligibility of persons of mixed or unusual occupations or residence."

When this question was brought before the Supreme Council, it enacted a statutory law as Sec. 20, which reads as follows: "That the question of eligibility be left to each State, subject to the limitations of the Constitution." This State adopted Sec. 1, Art. VIII, upon that question, and after the admission of persons under that section, the sub-Alliances have exclusive control over them by Sec. 24, Art. IX, of the Constitution, and no County or sub-Alliance has any authority to dismiss ineligible members other than in their own sub-Alliances. The State President may demand of a sub-Alliance the dismissal of clearly ineligible members, and if they refuse to dismiss them, he could arrest their charter for a plain violation of the law, but neither he nor any other person can dismiss them in the face of a two-thirds majority of a sub-Alliance; and this is right, because no sub-Alliance would refuse to dismiss a member by a two-thirds majority if he was not engaged in a mixed occupation, and they are the best judges of all the circumstances surrounding such cases; therefore those members in your county who are trying to weed out members of other Alliances than their own should cease their warfare and patiently submit to the rule of a two-thirds majority. I will try to protect the Order from its enemies, both inside and outside of the organization, and when a plain case of ineligibility comes up, the snbs will not refuse to dismiss them at my request. When occupations are mixed, I prefer that the snbs decide by a two-thirds majority whether they will dismiss them or not, and no other Alliance has any authority to interfere with their action. If one Alliance was permitted to dismiss the members of another, confusion would reign throughout the State, and this whole movement would be paralyzed. Therefore let the sub-Alliances extend due courtesy to each other, and all wrangling will soon cease.

MARION CANNON.

Ventura, April 27.





### To-day and To-morrow.

High hopes that burn'd like stars sublime,  
Go down in the heavens of freedom;  
And true hearts in the time  
We bitterlest need 'em!  
But never set we down and say  
There's nothing left but sorrow,  
We walk the wilderness to-day,  
The promised land to-morrow.

Our birds of song are silent now,  
There are no flowers blooming!  
Yet life is in the frozen bough,  
And freedom's spring is coming!  
And freedom's tide comes up alway,  
Tho' we may stand in sorrow;  
And our good bark, aground to-day,  
Shall float again to-morrow.

Tho' all the long, dark night of years  
The people's cry ascended,  
And earth is wet with blood and tears;  
But our meek sufferance endeth!  
The few shall not forever sway,  
The many moil in sorrow;  
Tho' powers of hell are strong to-day,  
But Christ shall rise to-morrow.

Tho' hearts brood o'er the past, our eyes  
With smiling futures gladden;  
For, lo! our day bursts up the skies;  
Lean out your souls and listen!  
The world rolls freedom's radiant way,  
And ripens with her sorrow;  
Keep heart! who bear the cross to-day,  
Shall wear the crown to-morrow.

O youth! flame-earnest, still aspire,  
With energies immortal!  
In many a heaven of desire,  
Our yearning opens a portal!  
And tho' age wears by the way,  
And hearts break in the furrow,  
We'll sow the golden grain to-day,  
The harvest comes to-morrow.

Build up heroic lives, and all  
Be like a sheathen sabre,  
Ready to flash out at God's call,  
O chivalry of labor,  
Triumph and toil are twins; and aye  
Joy suns the cloud of sorrow;  
And 'tis the martyrdom to-day,  
Brings victory to-morrow.

—Gerald Massey.

### After Many Days.

It was a beautiful September morning.  
Fleecy clouds floated across the sky, and the  
sun shone languidly through a thin mist that  
softened without obscuring its brightness.

A few maples had donned their splendid liv-  
ery in honor of King Winter's coming, and  
their brilliant color formed a fine contrast to  
the somber evergreens among which they grew.  
Here and there one caught gleams of light from  
the river, that mingled its voice with the  
plaintive melody which that master musician,  
the wind, was making among the pines.

Sweet sounds they were to Rachel Palmer,  
as she stood for a moment listening to them.  
All her life she had loved them, as only those  
love nature who have known little human com-  
panionship. The girl had always been alone,  
for the nearest neighbor was three miles away,  
and in those days, little time was spent in vis-  
iting.

But within two years, two great joys had  
come into Rachel's life. The first was the pur-  
chase of a farm near her home by a Boaton  
man, who brought his family out there to live.  
The family comprised himself, his wife, two  
boys and a girl. The girl was winsome and  
merry, and to Rachel Palmer she seemed the  
most beautiful and accomplished person in the  
world. Had she not been to school all her life,  
and could she not sing like an angel? Then,  
too, she was so graceful and pretty that she  
seemed like a sweet, fair blossom out here in  
the woods.

On this girl, Rachel lavished all the love of  
her warm heart. Rachel was a dreamer, and  
the busy flax-wheel at which she sat for so  
many hours each day flew far less swiftly than  
her own bright thoughts.

Yet a sadness ever mingled with her dreams,  
for the moaning river and sighing pines lent a  
pensive to her thoughts and manner.

Since Grace Wilson came, all Rachel's  
dreams were about her. She longed to be an  
artist, that she might paint a portrait of her  
friend that would rival even the greatest; a  
poet, that she might make her name immortal;  
rich, that she might load her with gifts. Oh,  
that she could make some great sacrifice to  
prove her love!

A year ago the second joy came. It had all  
come about through a visit Rachel made to  
Portland; such a wonderful visit that all events  
were ever after dated from it, for a person of  
few pleasures has always some event that serves  
as a Christian Era in his life. During this won-  
derful visit, she met David Brewster, and he,  
so handsome, so noble and good, had asked her  
to be his wife.

A visit to her parents followed, and they, as-  
certaining that he was a young man of good  
family and steady habits, gave their consent to  
their union.

To-day he was coming again, and Grace  
would see him for the first time. Rachel felt a  
little anxious about this meeting, but who  
could help loving Grace or fail to admire  
David?

Rachel turned from the doorway, where she  
had been standing, and looked about the room.  
Yea, all was in readiness for her guest. The  
floor of the keeping-room was as white as  
scrubbing could make it, the curtains were  
snowy, and not a speck of dust appeared on the  
tall clock in the corner. The andirons shone  
like gold, and the blue and halsam boughs in  
the fireplace perfumed the air.

She stepped into the spare bedroom and  
smoothed an imaginary wrinkle from a sheet  
smelling of roses and sweet clover. She paused  
for a moment before the mirror, to arrange the  
bow at her throat, and a tender smile flitted  
over her face as she thought whose face would  
be reflected there to-morrow.

Rachel went out into the kitchen, where her  
mother was at work. "Can I help you?" she  
asked.

"No," replied Mrs. Palmer, looking around  
with a satisfied air. "Dinner will be ready  
when they get here, and I don't believe your  
beef gets any better in the city."

Rachel took her wheel and went out on the  
little porch. How merrily the river sang, and  
how sweet and tender were her thoughts; for  
what waiting is so beautiful, so fraught with  
joy, as that of an innocent girl waiting for the  
coming of her lover!

At length she catches a glimpse through the  
trees of her father's white horse; then they  
come fairly in sight. How she trembles as she  
goes shyly forward to meet her lover. She  
holds out her hand, but David takes her in his  
strong arms and kisses her, right before her  
father! She hears them both laughing as she  
runs away to hide her blushes.

Dinner followed, but Rachel did not eat  
much, for her heart was too full. How tall  
and handsome her lover was! How clever and  
merry was his speech, and how often his eyes  
sought hers!

The afternoon passed quickly away and even-  
ing came, bringing Grace, who had been invited  
to meet David. Before the evening was over,  
the two young people were chatting like old  
friends, while Rachel watched them, pleased  
and happy.

Oh, the golden days that followed! How  
full of joy they were, and how swiftly they  
flew! Rachel was supremely happy. Father,  
mother, home, lover, friend—all were hers.  
What other joy could earth give her?

Grace was with the lovers a great deal; to-  
gether the three drove home the cows at sun-  
set; together they wandered by the river, gath-  
ering wild flowers and making the woods ring  
with gay laughter.

Mrs. Palmer looked on, well pleased. "The  
child never had a holiday in her life before,"  
said the good woman. "She must make the  
most of this one, for it's precious few she'll get  
after she is married."

Grace and David were as merry as children.  
They pelted each other with flowers, ran races,  
sang duets, and played mad pranks which  
astonished sober Rachel.

If a pang of loneliness and sadness sometimes  
smote Rachel's heart, when her two loved ones  
seemed unconscious of her presence, she was too  
unselfish and loyal to admit it, even to herself.  
Yet she often felt a vague longing to be like  
other girls. She had no gift of song; she could  
not say witty things. Grace and David could  
talk of so many things about which she knew  
nothing. All she knew was how to toil for  
those she loved.

But after all David loved her, and she would  
try to make up to him for her want of clever-  
ness by her love and self-forgetfulness.

One afternoon the three young people plan-  
ned a nunting expedition, but as Mrs. Palmer  
was suffering from a severe headache, Rachel  
could not go. "You must not give it up," she  
said to David and Grace. "If you do, the  
nuts may be gone." They were very unwilling  
to go without her, but at length yielded and  
set out together.

Rachel stood watching them as they walked  
away. How pretty Grace looked that after-  
noon. Rachel never forgot the quiet beauty  
of that day; the picture was burned into her  
brain, and in many a fevered dream she after-  
ward beheld her two friends as they stood at  
the bend of the road waving their hands in a  
laughing good-by.

Rachel went about her work with a song on  
her lips, and when her tasks were all done, she  
sat down with her wheel by the window to  
watch for the return of her two friends.

At length the afternoon drew to a close. The  
sun sank low in the west and cast long shad-  
ows among the trees, yet they did not come.  
The hunter's moon rose above the dark pines,  
and still they tarried. How the river moaned!  
Surely it had never sounded so dismal before.  
Rachel grew anxious, went often to the door.  
Her father was away for the night, so she and  
her mother were alone. The moon rose higher  
and higher. Deceived by the flitting shadows,  
Rachel thought again and again that she saw  
them coming.

But at length she really saw a man coming  
up the path, and never doubting who it was,  
she ran to meet him.  
"O David!" she cried, "why are you so  
late?"

"It is I—Mr. Wilson," replied an anxious  
voice. "Where is Grace?"

Every drop of blood left Rachel's face, and  
her heart stood still with fear. "O Mr. Wil-  
son!" she cried, "something has happened!  
They have not come."

Mr. Wilson was now thoroughly frightened,  
and set out to alarm others, and to obtain their  
aid in searching for the lost ones. Soon after  
Mr. Wilson's departure Rachel persuaded her  
mother to retire, and took up her vigil alone.  
The first, poor soul, of so many.

She neither wept nor moaned all that terrible  
night. For hours she stood on the doorstep,  
the night wind blowing her hair about her face  
unheeded, as she listened in vain for her loved  
ones.

At dawn the searchers returned unsuccessful.  
David's parents were notified, and tried  
every means of finding their son, but to no  
avail.

After the search had been kept up several  
days, Mr. Wilson appeared before Rachel with  
such a stern, set face that she was alarmed.

"Have you news?" she asked in faltering  
tones.

"Yes," he replied, grimly. There need be  
no further search. Two days ago, a man and  
a woman answering their description embarked  
in a vessel bound—God knows where; some-  
where to hide their guilt. She is no daughter  
of mine, henceforth."

Rachel arose and stood before him. She was  
a tall woman, and she looked as stately as one  
of her own pines, as she said with quiet dignity:

"Mr. Wilson, if you are so little acquainted  
with your daughter and Mr. Brewster as to  
think them capable of what you insinuate, let  
me tell you that I know them better." Rais-  
ing her arm above her head, she continued  
with deep solemnity: "Something has be-  
fallen them; what, I know not. This I know  
—God, who sees all, will reveal this mystery  
to me before I die. This I know, they have  
done nothing wrong."

Mr. Wilson was touched, and though uncon-  
vinced, left her without a word.

Rachel said very little about her trouble to  
any one, but one day her mother said to her:

"It seems childish of you to declare that  
David and Grace did not go away together.  
People will think you demented if you talk so."

The girl threw herself at her mother's feet  
with a passionate cry. "O mother!" she  
moaned, do not take away my only solace! I  
am but twenty! Think what a long, dreary  
time I must bear this burden. With my whole  
heart I believe in them. If I lose that belief  
I shall indeed go mad!"

Alas, poor child! As a traveler gazes with  
sinking heart at the desert over which he must  
go, so she, standing at the threshold of life, be-  
held only paroled and barren wastes stretch-  
ing out before her. For passionate young  
hearts are slow to learn that even a great sor-  
row cannot rob life of all its sweetness.

After this outburst the mother respected her  
daughter's feelings, and never mentioned her  
trouble to her. Slowly and quietly the years  
went by. Many a weary night Rachel sat by  
her window, looking wistfully down the path  
her loved ones had taken, listening to the moan-  
ing of the river, and ever murmuring the same  
prayer with dreary persistency.

As time went on the red gold of her hair  
changed slowly to silver, and the corners of her  
mouth drooped more than of yore. Sorrow  
came to her in many ways. Mr. Palmer fell  
from his horse one day, and was so injured  
that he lay helpless till death released him, and  
left mother and daughter alone.

All day Rachel sat at her wheel, spinning, for  
bread to feed her mother, who had grown old  
and infirm. Many changes took place about  
her. Mr. and Mrs. Wilson died and their sons  
went away. A little village sprang up near  
her home and neighbors grew plenty.

Every country neighborhood has one or more  
"old maids," angels of mercy, whom God has  
baptized with fire and set apart to comfort and  
aid the needy.

Such a one Rachel had become. Quiet and  
sad, she moved among her neighbors with a  
heart and hand ever ready to help. Many a  
dying one turned to her with a last look of  
gratitude, and many an orphan child sank sob-  
bing to sleep on her bosom.

At length the mother died and Rachel was  
all alone. Soon after her mother's death a  
neighboring farmer asked her hand in marriage,  
and was refused, gently but firmly.

Many years passed away and Rachel grew  
old and bent. Her hair was snowy and her  
steps feeble. No beautiful castles grew with  
the threads she spun now, no bright dreams  
mingled with the hum of her wheel. Yea, one,  
the dream of a life beyond and a long eternity  
with her loved ones.

She was wont to go to the neighboring wood  
to gather sticks for her fire. On her return one  
evening, she found an old man sitting on her  
doorstone. His white beard lay on his breast,  
and his hollow eyes had an unnatural bright-  
ness. Rachel spoke kindly to him and invited  
him in. He rose with tottering steps and en-  
tered the little keeping-room.

He looked wistfully around and tears filled  
his eyes. "O Rachel, Rachel!" he cried bit-  
terly. She turned and looked at him for a  
moment, then fell on her knees beside him.

"David, my own!" she said softly, "Have  
you come at last?"

The old man uttered a sharp cry.

"They told me you were dead!" he ex-  
claimed. "Curses on them! Curses on them!"  
Rachel drew his head down on her bosom.

She put her withered old arms around him and  
laid her cheek against his. All the long, sad  
years rolled away, and she was a girl again;  
for in her arms she held David, her David, who  
could never grow old to her.

"Who told you I was dead?" she asked  
gently. "Where have you been all these  
years, and where is Grace?"

"Grace?" he cried. "Did she not return  
that night and tell you where I was?"

"She never returned. The people all be-  
lieved that you and she eloped; but, darling, I  
never believed it for one moment! There would  
have been no need. Had you loved each other,  
I would never have kept you apart."

"O Rachel! we were never untrue to you in  
thought or word. My poor girl! to think that  
all these years you have not known what be-  
came of me!"

Then he told her that he had been taken by  
a press-gang that afternoon. The last he saw  
of Grace, she stood on the river bank waving  
him a brave farewell, and trying to keep back  
the tears.

He had sent a message to Rachel, which, of  
course, she never received. David had been  
unable to escape, and at Portland he was car-  
ried on board a ship. A few weeks after the  
vessel set sail, a storm came on and she was  
wrecked.

David was cast on an island, where he lived  
alone for many years. He told her of the long,  
weary watching for a sail, and how the thought  
of her had buoyed him up and kept him from  
despair. At length, he had escaped from the  
island and reached Portland, to find his par-  
ents and most of his old friends dead. There  
he had met the man who had asked Rachel to  
marry him. Ascertaining in some way who he  
was, David told him his story. He told  
David that Rachel and her parents were dead,  
and that Mr. Wilson had moved away, he did  
not know where.

Overcome with grief, David had again em-  
barked, and for years had lived in a foreign  
country, till a longing to see Rachel's grave and  
to be buried near her brought him back to find  
her.

Rachel could see that he was very ill, and the  
following morning she called in a physician.  
He told her that the man's days were num-  
bered. On the fourth day he died, watched  
by Rachel, who had never left him. She had  
told no one who he was, but when the ques-  
tion of his burial arose, she put her little sav-  
ings in the doctor's hand, saying simply: "It  
is my right; he was to have been my husband."

It was not an imposing funeral. The only  
mourner was a trembling old woman with sil-  
ver hair. Many neighbors, some prompted by  
the respect they felt for Rachel, others by  
curiosity, followed him to his last resting-  
place.

Long hours she sat by her window that night,  
thinking, thinking of by-gone days. The silver  
moon rose and glided across the sky; the winds  
ceased their sighing, and the great stars grew  
pale before she sought her bed. At length, she  
turned from the window with a smile, while  
perishing softly:

"Only a little while, David, and I shall join  
you."

Shortly after her lover's death, Rachel was  
again in the wood, when she was suddenly  
startled by a groan. Walking in the direction  
of the sound, she discovered an old man, evi-  
dently a tramp, lying on the ground. He  
seemed in great pain and moaned incessantly.

Rachel bent over him and asked him what  
was his trouble. He looked at her wildly:  
"I am dying!" he cried. "Dying right where  
she died! Oh, I can't die till I tell some one!"  
Then glaring at space, and throwing out both  
hands as if to ward off something, he shrieked:  
"Oh, don't come any nearer! I didn't mean  
to do it! You know I didn't! Why do you  
torment me!"

Rachel knelt beside him and put her cool  
hand on his brow. Her touch seemed to soothe  
him, for he ceased raving and lay quite still.

"May I tell you?" he asked finally.

"Yes," replied Rachel calmly.

"Fifty years ago, on this very spot, I mur-  
dered a girl. But I didn't mean to. I only  
meant to take her gold necklace; but she was  
brave and fought like a tiger. I took hold of  
her throat to stop her screaming, and she fell.  
I felt her heart, but it did not beat. Then I  
dragged her to the river bank and filled her  
dress skirt with great rocks and threw her in.  
She sank quickly, but her pretty, white face  
has been before me night and day ever since."

Rachel grasped his shoulder with an iron  
grip.

"Man!" she said sternly, "when did this  
take place?"

"Fifty years ago, in the month of October,"  
he replied. "The girl wore a white dress, and  
the necklace had the letters G. W. engraved on  
it."

"O Grace, darling Grace," moaned Rachel,  
"who knew you best?"

Hearing the sound of wheels, she ran into  
the road and called. The passer-by happened  
to be the physician who had attended David,  
and to him Rachel made the dying wretch re-  
peat his story.

He lived but a few minutes after he had  
ceased speaking. Rachel turned to the doctor  
with a sad smile. "My prayer is answered at  
last," she said.

A few days after, she was found dead in her  
bed, with her hands folded across her faithful  
heart.

All the villagers knew her story, and the  
tidings of her death spread rapidly. Young



lovers wept and drew closer together as they spoke of her. Loving hands placed roses and lilies and smilax in her withered hands and on her quiet breast, and above them lay the sweet, old face, purer than the lilies, tenderer than the clinging vines, with no shadow of pain on it now.

So they laid her to rest among her own pines, where every wandering breeze woke their music and wafted their incense abroad. And beside her slumbers he whom she loved so well.—*Dora Annis Chase in American Cultivator.*

Farm Life.

There is poetry even in farm labor if we only can find it. One man sees only his tools, by which he earns his daily bread; another with the same tools performs his tasks just as faithfully, but finds joy in the beauty of his work, and the refining influence it exerts upon others. One woman finds in her house only a place where she can make a martyr of herself, while another with the very same conditions, makes of her home a beautiful center, from which bright lights radiate, and the inmates go forth strengthened and equipped for the battle of life. The homely and prosaic realities will disappear in the sunlight of the poetry, which will surely be found by a diligent search for it. It is the philosophy of life to make the best of the present. Let us cultivate our little corner with care.

"Better to weave in the web of life  
A bright and golden filling."

Not forgetting that only noble thoughts and high aspirations can ennoble any calling. Carlyle, in his *Sartor Resartus*, I think, says something about fitting the man to the clothes. A satire, to be sure, but all the same, if our surroundings do not fit us, can we not fit ourselves to our surroundings? Many of our best and brightest men and women were born and bred upon a farm. Emerson says: "Keep the town for occasions," but the habits should be formed to retirement, and after all, isn't the country the very best place? That "man made the town, but God made the country" is evident.

Another correspondent says: "Many would soon to live upon a farm." True enough, but so would a philosopher soon to be a merchant; a professor of Greek or Latin to be a business man; a poet to be a lawyer, and a true farmer thinks his own calling one of the noblest of the many, by which men make their living, for that is what it all amounts to. But that is not all. There is work on every hand for us, aside from our own immediate surroundings; we can forget our own trials in ministering to others. Our own trials will seem small when we look around and find others hearing so much greater burdens. Because we live upon a farm is no reason why we should not have our part in life's great work. Let us determine to make the most of farm life. Let us realize the fact that there as much as anywhere we can enjoy opportunities of making our lives wider and richer. Life is not easy anywhere. It is not all poetry and brightness in any sphere. But let it be our endeavor to make our lives so bright, and our homes so pleasant that they will serve as encouragement to all who already live upon the farm, and awaken a desire in others to try farm life. Let us appreciate and be content in the place in which we find ourselves, bringing all the good there is in us to bear upon it, and

"Sometime, when all life's lessons have been learned,

And sun and stars forever more have set,  
The things which our weak judgments here have spurned

Will flash before us out of life's dark night,  
As stars shine most in deeper tints of blue;

And we shall see how all God's plans were right,  
And if through patient toil we reach the land

Where tired feet with sandals loose may rest,  
When we shall clearly know and understand  
I think that we will say: "God knows the best,"

—Mrs. Wm. P. Marshall.

Chaff.

THE faster a man runs in debt the less he is apt to get ahead.

SIMILARLY SITUATED.—A lady was one day driving her husband down a narrow lane in Scotland, when, on turning a sharp corner, they encountered a brewer's van. Neither had room to pass. The lady very tartly said: "He must go back, for I shall not; he ought to have seen us before entering the lane." "But how could he," replied the husband, "when there is this sudden turn in the lane?" "Never mind, I don't care; here I'll stay till doomsday, if necessary, before I give way to that man." The brewer's man, overhearing the colloquy, said: "All right, sir, I'll back out of it;" and then significantly added: "I've got such another one at home."

"Oh, John!" said Mrs. Smith, tearfully, "ma bae out her thumb dreadfully, and the doctor says there's danger of lockjaw."

"He needn't be afraid of that," replied Smith sarcastically. "She'll never give it a chance to lock."

G.—ROBINSON is a great free-trader.

P.—I never knew that. How do you make it out?

G.—Why, he never pays his bills.

PRISONER—"I don't think there will be any need of your addressing the Jury." Lawyer—"Why not?" Prisoner—"My insanity will be instantly plain to them when they see that I have retained you to conduct my case."

YOUNG FOLKS' COLUMN.

Margery's Title.

"You may laugh, but I shall earn one," said Margery Ellis.

"Ha, ha! How you would look to have a remarkable string of abbreviations to please out your cognomen!" her brother replied.

"I didn't intend that you should hear me say anything about it."

"Who could help it, I should like to know, when you proclaim it from the housetop?" Ned Ellis questioned, teasingly.

"'Twas only from the doorway; and I don't know why a girl may not have titles as well as a boy," said Margery, impatiently.

"Not the least reason in the world, Lady High Jingoism de Fiddle de—o-ooch!"

"Well, I don't mean to be laughed at any more," Margery half laughed at the sudden turn in his form of address which her unfriendly pinch had evoked.

"Say, Margery, when are you going to begin?" questioned Ned, rubbing his arm ruefully. "I'll have to change it if you're going to set out to torture a fellow."

"You're right. I'm going to begin right now. Of course, I must be a lady first of all; so excuse me for that pinch," Margery impulsively exclaimed as she turned to go.

"Whew! Well, that is a new wrinkle!" Ned gazed in astonishment at her retreating form.

Only last June, Margery Ellis had graduated from the high school with great hopes and ambitions filling her breast; and how she was to realize them was the question that filled her thoughts day and night. As yet, the horizon had not widened very much to her view; but her ambition was dauntless. She felt very sure that out in the world lay some great work which would crown her with the coveted laurels, and she had resolved to win them.

This little episode with Ned, though, had produced a suddenly formed resolution, which she determined to carry rigidly into execution, "heavens," as she said to herself, "it will not hurt, but help, me in great things if I am careful about little things."

"Oh, pshaw! Don't be mooning about encompassing the earth just now. My hall wants a brand-new cover; and here it is all out—just want's your needle to finish it up," Ned said a few days later. So, with a sigh for the great things, Margery hunted for her work-box and soon completed it.

"Thank you, my lady," was Ned's return for the work, coupled with a lordly how.

"Margery, don't think of leaving me alone this year; I need you," her mother remarked one day, as she was planning for the accomplishment of her wishes. And she was not sorry that she had relinquished the plans readily, when, a few weeks later, her mother rallied from a severe illness to whisper faintly: "You have saved my life. Your presence has relieved my mind of responsibility, and your care has been most faithful."

Yet even this did not make her lose sight of what she had in view. It would be longer now, but some day the coveted distinction should be hers.

"Margery, you are worth a whole Chinese laundry!" exclaimed her older brother Ben, as he took his share of the glossy linen from the ironing-table. "You are surely a professor if Ah Ling is."

"I had never thought anything of such work. I like to see it look well, so I try my best," she answered, with a glow of satisfaction at praise from Brother Ben.

"O Margery! If you only would teach us music!" was the delighted exclamation of the minister's daughters at Margery's casual offer to do so, knowing of their talent and inability to pay for a course.

"Why, it would be a pleasure. I must keep busy while here," she said, as she thought of the opportunity to keep fresh in such accomplishments.

It was this that led her to form a class for the work girls, and teach them many things to render life brighter for them.

"Keeping my hand in will make it easier, too, for me, when the time comes to win my honors," she confidentially whispered to her aunt one day.

But would the time ever come when she should see the world hovering to her for great deeds, when she would be greeted by and welcomed among the titled of the land? It seemed a long time from the day Ned had overheard her at the doorway expressing her desire for a title.

All of this came back to her when that misfortune came to her eyes, and so many weary weeks had to be spent in her darkened chamber.

"What shall I do? I had planned so much, and I have done nothing toward it—nothing at all," she moaned, with an overpowering feeling of disappointment, when she was lovingly told of the weeks yet to come that she must pass in patience.

"You may see yet that you have done something already," said tender Aunt Clara, when she broke the news to her.

But it fretted her so sorely; yet she curbed the impatience, that others might not fret.

"Patient Margery!" said a friend in Ned's hearing one day.

"I guess she is," returned Ned, emphatically.

ally; "and I don't see what she wants to get well and go away for to get titles. That's one she has earned right here."

"Make a list," suggested her aunt, "and see if she'll not be satisfied to stay."

"That's just what I'll do, for I want her. She doesn't refuse to fix halls or anything else for a fellow," he fretted. "It isn't everybody that's so willing."

"Put that down, too," said her aunt.

"Hurry and get well; we can't spare you long," said the girls for whom she had worked; and the minister's daughter's added, "She never seemed to think of self."

"Unselfish Margery!" was what Aunt Clara whispered to Ned.

"Hurry, Margery, and get well; no one can do my starched things like my little professor," said Ben, cheerily; and grandma plaintively added, "Nobody nurses me like Margery."

"My, and ain't the list growing!" exclaimed Ned in admiration, as he showed it to Aunt Clara one day. "And it isn't a speck too long," he stoutly added, "for she's the best sister out."

"Be sure and add that," laughed Aunt Clara.

But Margery was growing wan under her affliction, while her former gentle offices were swelling Ned's list; and all rejoiced when the day came that she could again look upon the world.

"I can't wait," said Ned, and it was his hand that laid before her weak eyes the heavy sheet that his boyish band had gotten up "in regular diploma style," as he asserted.

"You've earned 'em all, sis, every one; and I tell you, Margery, they're a heap better than if you'd been my Lady High Jingoism. We shouldn't've had you, nor you these, if you had."

"And I guess I'm a great deal happier, too," she answered tremulously. "Though I thought I had done nothing," she added.

"If you had not done the little things, see how much time would have been wasted," said her aunt.

"And I should perhaps have earned nothing, for it will be a long time now before I can go out into the world. And I don't know as I wish to now," she finished, slowly looking again at the sheet before her.

"Hurrah, that's just what we wanted!" exclaimed Ned. "But which do you like best?" he questioned. "You can take your pick, for the 'trilog' is longer than any of those F. R. S. A. E. *Pluribus unum* fellows wear."

"I think I prefer the best Sister Margery," she answered after a moment's thought. "Bless your heart!" said Ben. "Who'd've thought it!"

"Cricky!" exclaimed Ned. "You don't say so! Why, we thought professor or doctor would be the least you'd look at."

"Loving home titles are of far greater worth than those the world may give," answered Aunt Clara, gently, adding, "and the highest and best of honors come to those who uncomplainingly do the duties that lie next them."

And Ned supplemented it with a promising aside to his brother,—

"What say, you, Ben, to our both going in to win one, too?"—*Register.*

An Essay on Education.

[Written for the RURAL PRESS by NELLIE HOLDER—Aged 11 Years.]

For my part, I cannot see how people can get along without some education—anyway so that they can read and write. I know some men and women and children that cannot read or write; now is not that awful? Why are we not all studying? It is because we hate to study. But when we all get older we will see what we have missed in our young days.

Oh, you will say we were foolish for not getting an education when we were young. You ask, why shall we get an education? Because when you get an education you are looked up to and you can talk on any kind of a subject and can do anything you want. You can help your parents.

You ask, why shall I help my parents, they have never helped me? They have helped you ever since you came into the world. Oh, a person never has too much education. I am studying every day and I expect to make a graduate out of myself.

Now how bad you will feel when you go into company and they go to talking about anything they read and you cannot say anything without showing your ignorance.

There are boys and girls who are too poor to go to school and get an education, but if they are encouraged they will work their way into school. I have heard of a man who was just a poor boy and he could not read or write when he was twenty years old, but he worked out when he was twenty-one and got enough money to go to school and pay his board with, and he kept on going to school until he made a graduate and then he taught school. What do you think of that? We ought to try as that boy did.

If you just set your head to get an education, and stick to that, you will get an education, but until you do that you never will. Why is it, do you think, that some people don't get an education? It is because their parents were too poor to send them, and they could not think of sending themselves to school.

Some children do not care for books. Why

is it? It is because they are lazy. When any one sees a child that does not like to read, you may just say they are lazy; and you see a child that does not like books, they will never amount to any thing.

A girl may do housework three months and she will get \$36, and a girl can teach school three months and she will get \$136. Now which is the best—the girl that works in a house or the school-teacher? Why the school-teacher, of course. A child that does not go to school is a clod upon the wheels of time. They are scorned at, and they are called "blockheads," and now how would you like to be a blockhead? I am sure I would not like it, nor other little boys or girls ought to either, and when they do like it, they are more than lazy, don't you think so? *Grass Valley, Oregon.*

DOMESTIC ECONOMY

The Orange Cure.

The orange cure is not unlike the famous grape cure practiced in some parts of Germany. Oranges should be free as water. You take two or three, at least, before breakfast; and after breakfast, as you saunter out in the grove, you sample two or three more of the different varieties. There are always more or less of "drops." The juice contains the main curative principle. As with grapes, you must avoid seeds and skins; so with oranges. The more Navels the better, destitute of seeds and filled to the bursting with the rich orangeade. One reason why we would recommend the Navel is that you can regard the skin as a kind of cup, and drink your generous glass full of the pure juice even from one orange. We have often seen a Navel that would weigh a pound. A large orange of other varieties is liable to be coarse, and, having a coarse-grained pulp, which is not palatable but comparatively dry, so that you must cut several such oranges to obtain the amount of the healing juice that you get from the Navel; the latter, too, has a finer flavor than the large oranges of other species. On the whole, we give the preference to the Navel for all the purposes for which an orange is grown, and particularly in our orange cure.

"What will it cure?" Well, we have mentioned dyspepsia, but this has almost numberless manifestations and symptoms, and often is at the basis of coughs, bronchitis, liver trouble, kidney trouble, heart trouble, and is almost certain to involve one or more of these vital organs. Get the stomach and liver right in the way indicated and the kidneys will soon be healthy. The blood comes pure, the lungs work normally, the nerves tone up; headaches, hiccups and neuralgia even pass off. The orange juice acts very directly to benefit the liver and all the disorders that may infest the alimentary canal.—*Exchange.*

HOW TO LAY A CARPET.—Lay the linings on the floor, putting a small tack here and there to keep them in place. Put the carpet on the floor, unrolling it in the direction in which it is to be laid. Begin to tack it at the end of the room which is the most regular. If there be a fire-place or bay-window in the room, fit the carpet around these places first. Use large tacks to hold the carpet temporarily in place; they can be withdrawn when the work is finished. When the carpet is fitted to a place, use small tacks to keep it down. Tack one end of the carpet, stretching it well; then a side, then the other end, and finally the other side. Be careful to keep the lines straight and to have the carpet fit tightly, for if it be loose it will not only look badly, but will not wear well.—*Ladies' Home Journal.*

MILK TOAST.—Slice some bread, toast it of a nice light brown on both sides. Boil a pint of milk; mix together two teaspoonfuls of flour in a little cold water; stir this into the boiling milk. Let it boil about one minute, then add a little salt and stir into it two ounces of butter. Dip the toast in the milk, place it on a dish, and pour the remainder of the milk over it. The toast may be made much richer by increasing the quantity of butter.

BALLOON MUFFINS.—Place your gem pans on the range to get very hot. Take one pint of flour, half-pint milk, half-pint water; heat thoroughly with a keystone or wire heater. Butter the pans; fill two-thirds full and bake in a quick oven twenty minutes, or until they are puffed and nicely browned. Use no salt or baking powder. Salt is easily added when they are broken open to eat.

HOT SAUCE.—Set a bowl in a basin of hot water, refilling so as to keep it hot. In the bowl heat one egg and one cupful of sugar; flavor. When ready to serve, heat in one-half cupful of hot milk. Stir as it is served, so it will be thick only on top. Wine will improve the sauces in addition to vanilla.

APPLE SAUCE.—Pare, core and slice your apples, put them in a kettle with water enough to keep them from burning, cover them, and as soon as they are soft mash them very fine. When they are nearly cold, sweeten them to the taste.

BLACK PUDDING.—Three cupfuls of flour, one and one-half cupfuls of milk, one and one-half cupfuls of raisins (stoned), one egg (or without), butter the size of an egg, teaspoonful of clove, cinnamon, salt, one cupful of molasses. Steam four hours.



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SAN FRANCISCO:

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## Business Announcements.

(NEW THIS ISSUE.)

Well Tools, Windmills, Etc.—Pacific Mfg Co.  
Harvesting Machinery—Truman, Hooker & Co.  
Pacific Grove—Rev. T. H. Sinc, Monterey.  
Fruit Graders—Musher, Chandler & Co.  
Gopher and Mole Traps—Ira P. White & Son, Pomona, Texas.  
Coffee and Spices—Great American Importing Tea Co.  
Resin Wash—Woodbury Oil Co.  
Aplarian Supplies—Mrs. J. D. Enas, Napa.  
Floral Exhibition—California State Floral Society.  
Commission Merchants—K. P. Fellows & Co.  
Barb Wire and Wire Nails—A. J. Robinson.

See Advertising Columns.

## The Week.

Our tidings from the agricultural regions bring as a rule encouraging information. The growing weather which was alluded to last week has continued, and glorious days of warmth and brilliance have brought forward field crops and fruit trees wonderfully. In the regions where the year's rainfall has proved too short, and unfortunately they are wider than we could wish, the warm weather but shows the fatal lack of moisture, and hastens the sad

end of many sowings which will not even make hay.

Over great expanses, however, the grain is growing rapidly, and except very small areas where the grain has lodged, there promises to be a magnificent yield, providing blasting winds are withheld as the heads are filling. Fruit prospects are, as a rule, as good as could be desired all around, though there have been small local disasters.

This has been President's week in the city, and the whole town has been *en fete* day after day. Never was welcome more elaborate or more hearty than that extended to President Harrison and his associates.

## Proposed Meeting of Dairymen.

There have been notices in the daily papers of this city for the last few weeks, stating that a meeting of dairymen was about to be held to secure united action for mutual self-protection and the promotion of the interests of the legitimate producer. We have appreciated the fact that such action would be desirable if properly taken and responsibly backed; in fact we have urged upon our dairy producers time and time again, the desirability of employing the power of organization to advance their interests, as such power has for years been employed at the East. We did not discover, however, what dairymen proposed the meeting, and therefore did not participate in the announcement. To make such movements effective, there should always be names of organizers given to win the confidence of others in the same line of work.

We did not discover any reports of the meeting which gave any clue as to who was participating, but about a week after the date there appeared an article in the *Chronicle* from which we take the following:

An informal meeting of some of the larger butter manufacturers was held in this city a week ago, and a call issued for a general convention of dairymen at the Commercial hotel on Monday, June 1st, next. One of the gentlemen who was present at this meeting, and who ships thousands of pounds of butter every week to this city, explained the objects of the convention to a *Chronicle* reporter yesterday:

"The adulteration of our butter," he said, "not only reflects upon the honesty of the manufacturer, but it overstocks the market and demoralizes prices. In butter, as in everything else, the supply regulates the price, and you can easily see the effect in the buying price, when a 10,000-pound shipment is one-third adulterated and retailed out as the pure article. Down goes the market and the dairymen suffer while the commission men pocket the extra profits."

"Another serious complaint we have to make is the fraud practiced by commission men in their sales. This entails a loss of thousands of dollars each year to the dairymen. Our protests have been to no purpose, and now we propose to dispense with the middlemen, and handle our own produce. Our plan is to establish a large, co-operative market, which shall be a central point for distribution. If the commission men wish to deal with us, it is their privilege, but they will have to accept our terms and conditions. Nearly all the dairymen in the State are interested, and we expect to have them all represented at the convention."

This statement seems to imply that mixing of butter and oleo is done in this city. We doubt it for the very reason given by a commission merchant when interrogated on the subject, that the adulteration of butter is too difficult and intricate a thing to do to make it likely that commission merchants are doing it in this city. We have no doubt that bogus butter is being largely worked off here, and is depressing the value of the genuine. We have stated that a number of times, but that any one is mixing butter and oleo here we seriously doubt. Still that and all other mooted illdoing which work against the legitimate producers' profits could be easily verified or disproved by a good active organization of dairymen.

The second point in the alleged interview with a butter producer, as given above, is in relation to the ill deeds of city commission merchants and the proposition on the part of the producers to do their own business through a central depot controlled by themselves in this city. We know there is quite a wide sentiment among dairy-producers that this would be to their advantage. It might be so. The dairymen of other States have accomplished this, to a certain extent at least. Whether it could be done depends, first, upon whether the dairymen will act together; and, second, whether they can find parties to do their business, not only honestly, but in an enterprising, business-like way, which shall secure them better re-

turns for the product than they are now obtaining. These things could be determined, also, by an association which includes a sufficiently large support and co-operation among the producers.

These propositions are certainly worthy of attention among dairymen, and as a meeting has been called for June 1st in this city, there should be some action taken which shall ensure a representative character to the meeting and wise action by it. This can be best done by meetings of dairymen in the different producing neighborhoods, discussion of the matter, inquiry as to whether the call for the meeting is *bona fide* and well backed and designation of delegates to attend as representatives of the different sections, and with well-defined ideas of what the needs and wishes of the different regions are. We can but urge, though, as we have said, we have not been informed as to the source from which the call to the meeting proceeds. Possibly the matter may be brought to the attention of dairymen by means of private circulars bearing reputable names. That would be a business-like way of proceeding. We are, as we have always been, in favor of association of our dairymen for their own good, and we hope the present movement may be the one which we have long anticipated.

## Ramie Distribution.

The law passed by the last Legislature, providing for the encouragement of ramie cultivation, authorizes the State Board of Agriculture to expend not more than \$1000 for the purchase of ramie roots for free distribution to farmers. At a meeting in Sacramento on Monday of this week, the Board decided to expend \$1000 in that way, and consequently the plants are now offered to all who apply for them. Applications should be addressed: "Supt. Ramie Culture, care State Board of Agriculture, Sacramento, Cal." We are not informed how the distribution is to be made, but we presume the plants are to be sent by express, the charges to be paid by the applicant. It is very late in the season to handle ramie roots, and if they are to succeed at all, they will have to be well packed, and the receiver should take extra care that they do not dry out before he gets them into moist ground.

If the ground is dry the plants will have to be well watered and then thoroughly cultivated. This distribution is unfortunately about two months too late for the best success in planting out.

The State Board at its meeting on Monday, appointed W. H. Murray, of this city, its Superintendent of Ramie Culture. Mr. Murray proposes to have a fiber garden at the next State Fair, and various fiber plants will be at once planted out in one of the angular spaces around the State Fair pavilion.

The Board proposes to publish at once a circular on ramie culture which will be sent to all who apply for it to the same address given above for applications for ramie plants.

## Tasmanian Apples.

We had last year antipodean apples in good condition, and we notice that they are being spoken well of in the London journals. It seems that the southern hemisphere with its reversal of our seasons ought to be able to supply our markets when completely bare of the same fruit from our adjacent regions. But there is much to be learned in the shipment of fruit such long distances. On a steamer which arrived last week from Australia, were about 1700 boxes of apples, shipped through the agency of W. D. Peacock of Hobart, Tasmania, and consigned to D. G. Camarinos of this city. An examination of them was made by Captain Metcalfe, the surveyor for Lloyd's; Captain Wilson, Port Warden; Mr. Camarinos and his attorney, W. H. Cook, and it was found that the apples were in every condition of baking, roasting and stewing, and were entirely unfit for use. It appears that they had been stowed improperly, and whether it was the heat of the hold or the natural heat of the tropics that destroyed them does not appear.

The value of the consignment was about \$3500, and in addition to the freight and duty Mr. Camarinos had been drawn upon by Mr. Peacock for \$350, through the Bank of British Columbia. A suit against the consignee of the vessel will probably be commenced in the United States District Court to-day by Mr. Ca-

marinos, Captain Metcalfe having prepared a certificate stating that the ventilation of the hold was bad.

## Meats Advancing in the West.

From the facts stated in these columns several times during the last few weeks, our readers will not be surprised at a sharp advance in meats, which is telegraphed this week from the markets of the great west. From St. Louis it is announced that the price of meat has gone up and is still advancing. Packers, butchers and dealers say that they think it will continue to advance until about July 1st. At present the prices of dressed meats, excepting pork, range from 9½ to 12½ cents per pound at wholesale for first-class grade. Pork is beginning to take an upward turn. At retail choice steaks sell well at from 17½ to 20 cents per pound, while round steak is worth 12½ to 20 cents, and roasts 15 and 22 cents. This is an average advance from 6 to 7 cents since the first of the month.

According to the telegraphic reports, the large dealers and slaughterers of Western cattle cite the same reasons for the advance that have been previously set forth in these columns. Representatives of Armour & Co., Nelson Morris and others, say the advance is due to natural causes; mainly of the scarcity of good stock. Then the failure of the oat crop and this shortness of the corn crop and minimum amount of hay for several years, and other causes, and the removal of the cattle from the Cherokee strip is still another. The cattle, they say, were taken from the strip and put on the market at once. This took away one source of obtaining feeders of the spring market. Then, on account of the short crops last year and the consequent high price of grain, feeders could not afford to fatten and did not have the feed, and so put all surplus stock on the market at any price. This took away another and the remaining source of obtaining feeders.

The Department of Agriculture issues notice that cattle which have been at least 90 days in a described area in Northern Texas may be moved by rail into Colorado, Wyoming and Montana for grazing or slaughter in accordance with the regulations of said States, provided they shall not be shipped into any other State or Territory, or be allowed in pens or on trails or ranges to be occupied or crossed by cattle going to Eastern markets before December 1st. All cars used must be disinfected upon unloading.

## Progress With Beet Sugar.

Our California firm, E. H. Dyer & Co. of Alvarado, Alameda county, bids fair to carry the beet sugar business all through the United States. They have just contracted to build a 350-ton factory in Iowa, and will have this one and the one just constructed by them in Utah both in operation next fall. E. H. Dyer goes East in a few days and expects to be absent all summer.

The new sugar factory at Chino, San Bernardino, is progressing favorably since the rebuilding from the damage done to the walls by a storm some weeks ago was undertaken. It will be all ready for the beets this fall.

The U. S. treasury department has triumphed for once over red tape and the fact is worth noting. The Western Beet Sugar Factory had a lot of such machinery in a San Francisco bonded warehouse. The construction of the factory had not commenced. It became necessary to move the machinery. Owing to its cumbersome character transportation was difficult, and the owners appealed to the Secretary of the Treasury to relieve them of the necessity of paying duty on it. They claimed that they intended to use it in a beet sugar factory which will be in operation shortly.

In the Congressional act granting a bounty to beet sugar makers, it is expressly stated that no duty will be charged on beet sugar machinery imported prior to July 1st. The Secretary of the Treasury in his letter foregoes the duty, with the stipulation that the owners shall execute a bond covering the amount as a guarantee that the factory will be established.

WEATHER-CROP BULLETIN.—Sergt. Barwick's weekly publication will soon have to be printed on wall-paper if his list of volunteer observers increases much more. The last issue contains about 40 special reports from different parts of the State.



# THE ORNITHOLOGIST.

## Twelve California Song Birds.

(Written for the RURAL PRESS by C. L. ANDERSON, M. D.)

This list has grown out of a request from a lady friend and educator to furnish her with a list of a dozen California song birds interesting to children, stating habits, color, time of being here, nesting and other facts. The request was for "principal ones."

Having to draw a line somewhere, this list is confined to Santa Cruz county, although it might answer for a large part of California.

I cannot say whether this list is selected wisely and well, or not. If not, suggestions and revisions will be in order.

It seems a pity to stop with a dozen birds while there are so many singers and non-singers, prominent characters that seem just as meritorious as any on the list. There are sparrows and finches, warblers, blackbirds and linnets, goldfinches, vireos, chats and thrushes, and indeed a great many more that will doubt-

forth from its haunts a flood of melody; remains all the year.

**CALIFORNIA THRASHER** (Sickle-billed Mockingbird): *Harporhynchus Redivivus*, Caban.—Quite a large thrasher found in "chapparal" and other bushes along valley borders. It sings much like the common mockingbird, and also mimics the songs of other birds.

In color a dark, oily, olive brown above and a pale shade below. Throat whitish; bill as long as the head. Builds its nest in bushes near the ground, of sticks, grasses and leaves. Eggs three, bluish green; remains all the year. Their wings are so short they do not make prolonged flights.

As a musician this bird is a fine artist, but he must be approached quietly and listened to carefully in order to get a full appreciation of his merits, and his performance pays us to do that.

**WATER OUZEL** (American Dipper): *Cinclus Mexicanus*, Swain.—This curious little bird is quite at home along secluded streams and rapids. While we are pondering over some sweet strains of music and wondering if that plain little bird on the half submerged rock is the author, both bird and song disappear as if

*glodites Pacificus* (Baird), Ridgw.—Commonly found in bushes or about dead stumps and waterfalls, for it has a passion for water. Hardly distinguished from the common wren of Europe, but its habits are different. It will run under a large root through a hollow stump or log, or between the cracks of rocks more like a mouse than a bird.

They build their nests about here near waterfalls in cliffs and on rocks, using lichens, mosses, fur, hair, etc., neatly interlaid. Has a strong voice and a cheery song. Said to sing under gloomy skies as well as sunshine in the forest as well as the open hillside. "Happy under adverse circumstances."

**HORNED LARK** (Shore Lark): *Eremophila alpestris cornuta*, Wils.—Inhabits open treeless places. A small bird, about the size of the English sparrow, with a dark band across the crown and two little tufts of feathers each side of head resembling horns, and which stand out plainly when the bird is excited. Said never to alight on trees. Is at home on the ground or high in the air.

The color of the adult bird is a pinkish-brown on the back, with dusky streaks; lighter beneath. Has a narrow white band over the

west of the Mississippi, yet the notes are different.

The nest is made on the ground, generally under a bunch of grass, which is skillfully arched over it.

The eggs, four or five, are white, with a few purplish brown dots or blotches towards the larger end.

They feed on insects and seeds, but do not injure the farmers' crops.

Their notes are ringing, clear and musical, except when rudely disturbed then they utter a harsh, angry chirp.

**CALIFORNIA LINNET** (Crimson-fronted Finch, Red-headed Linnet, Spanish-Burton): *Carpodacus Purpureus Californicus*, Baird. *Carpodacus Frontalis*, Schlater.—In studying the three or four species that visit us—some remaining all the year—I find it difficult to distinguish them. Probably, as this is a bird bordering on domesticity, its colors, habits and songs become changed by circumstances in time. The two varieties above mentioned are often found together singing and feeding on buds of trees, especially blossom buds of cherry, apple and peach when these contain a sweet sap. They also eat fruit, seeds and insects.

Their nests are built almost any place, of vegetable fibers, stems of grasses and woody fragments. Eggs pale green, spotted dark brown near the larger end.

These finches (for they are not linnets) are fine singers and are often caged and readily tamed, serving in place of canaries, their notes resembling somewhat that favorite.

**BLACK-HEADED GROSBEEK**: *Zamelodia Melanocephala*, Cones.—This beautiful bird arrives here from the South about the first of April and leaves in September. It is one of our best singers. Dr. Cones says: "Its song is superb, a powerful and melodious succession of clear, rich, rolling notes somewhat like those of the Baltimore oriole."

Its head above and on the sides, with its chin, back, wings and tail all black. Wears a well-marked, light-colored collar all around the neck. Has a yellow vest under wings and belly, while the outer three primary tips are white.

Builds its nest of a few sticks and weeds, with a lining of fine grass. Eggs, three, pale bluish-white, densely spotted with brown near larger end.

This concludes the dozen, but there is one more that, for good count, might be added to the list; because, if it is not here already, it is so near that I fancy having heard it a few days ago. It is the

**MOCKINGBIRD**, *Mimus polyglottus* Lin.—On the authority of Dr. Cooper and others, this bird, so well known in the Eastern States and Southern California, finds its habitat as far north as the Salinas valley and Monterey.

Santa Cruz.

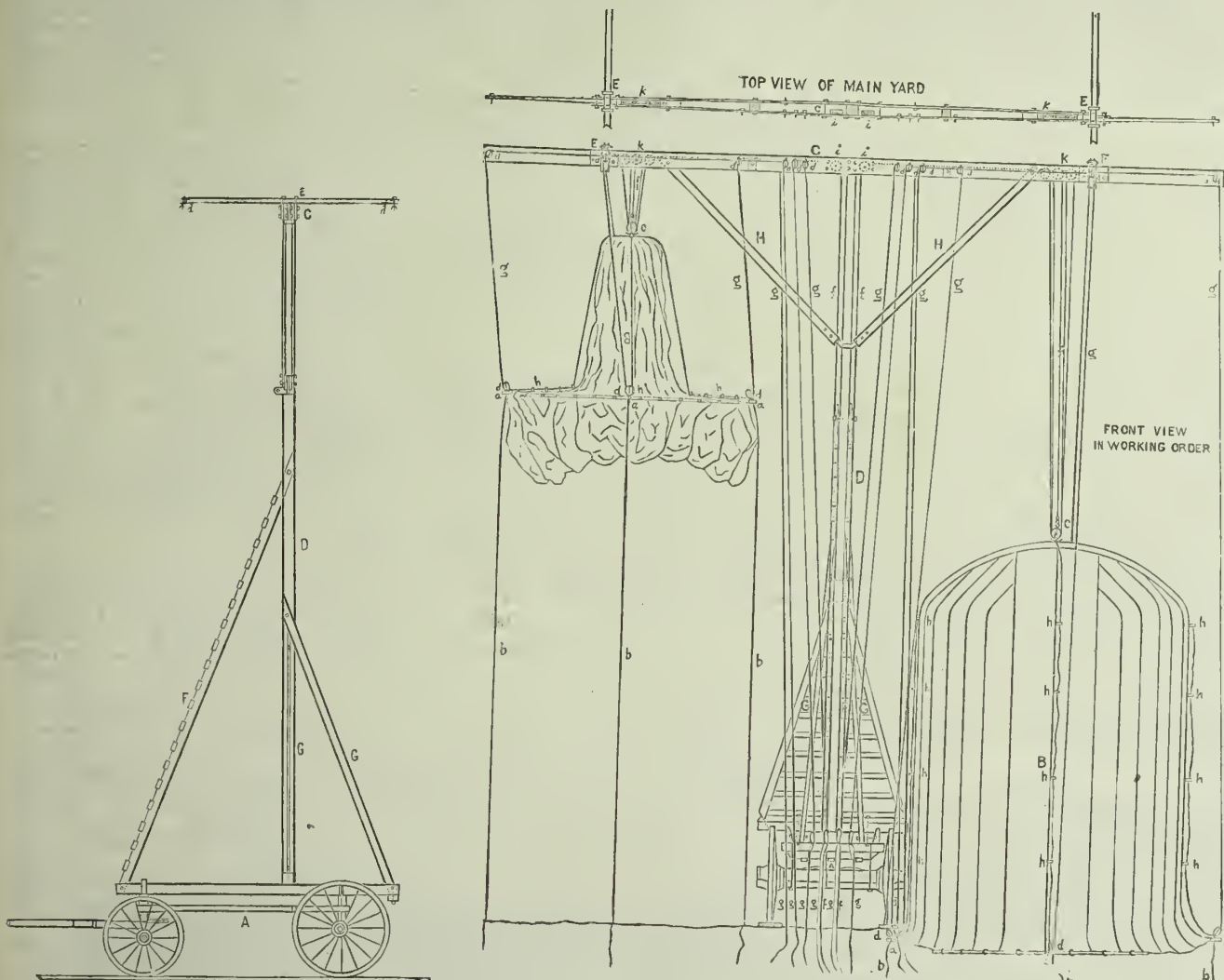
## Gas Treatment for Insects.

California can claim credit for the suggestion and practical development of many insecticides and insecticidal apparatus. Perhaps the most striking is the treatment of large trees with gases for the destruction of scale insects. This treatment is now being largely used for scales infesting citrus fruit trees in the southern part of the State. We have from time to time published information on this point and illustrated some of the devices employed for bringing the poisonous vapors directly to bear upon the scales. We give herewith a very complete arrangement for enclosing trees in tents in which the gas is generated—two tents being employed to save time, because while one tent is being filled with the gas the other can be adjusted upon another tree. The engravings are from the 1890 report of the State Board of Horticulture and represent the apparatus built by S. W. Preble of Tustin City, Orange Co., Cal., and is used in his orange grove. The measurements were taken on the spot by J. A. Shilling, and, in connection with the drawings, should convey a full idea of the construction of the device. The scale is  $\frac{1}{2}$  inch to 1 foot. The apparatus, attended by two men, worked most perfectly in all its parts.

In the figures the lettering is thus explained: A. Wagon. B. Tents (2). C. Main yard. D. Mast. E. Crossbars (2). F. Ladder. G. Mast stays (6). H. Main yard truss (2). a. Trail boards (8), to bottom edge of tents. b. Guide lines (8), one-half inch diameter to trail boards, 30 feet each. c. Six-inch blocks (2), double sheave, for hoisting tents. d. Four-inch blocks (20), single sheave, for hoisting trail boards. e. Belaying pins (4), galvanized iron, to fasten ropes. f. Main rope (2), three-quarters inch diameter, for hoisting tents, 190 feet each. g. Trail ropes (8), for hoisting sides of tents, one-half inch diameter, 120 feet each. h. Rope thimbles (32), one-half inch diameter, galvanized iron, for trail ropes of tents. i. Six-inch sheaves (2), brass, in main yard, for hoisting tents. k. Five-inch sheaves (6), brass, in main yard, for hoisting tents.

The process of generating the hydrocyanic gas to fill the tents to destroy the scale and the duration of exposure necessary to kill the insects, etc., has already been published in our columns.

STEAM is a willing servant, and will turn any crank and ask no questions; but it depends upon who made the crank how long it keeps turning.



SIDE AND FRONT VIEWS OF APPARATUS USED IN THE GAS TREATMENT FOR KILLING SCALE INSECTS.

less feel slighted (especially among the singers) because they are not on this list.

A dozen will scarcely begin to include the throng, or flock, that fly around me. May I hope that somebody some day will make a list regardless of numbers.

We hear complaints that song birds are scarce in California. I do not think so. Opportunities may be wanting—groves and streams—but wherever these occur, there is no lack of music.

It would be a good work for some of our ornithologists to write up the musical talents and accomplishments of our feathered songsters, so little known and appreciated in this extensive State of ours. It might be a means of inducing some of our human songsters to become better acquainted with our original native singers.

In compiling this list, I am under obligations chiefly to the published writings and observations of Dr. J. G. Cooper, who once, for a time, resided at Santa Cruz. For many years, he has been our standard authority on Pacific Coast ornithology.

**WINTER ROBIN**: *Merula Migratoria Pro-pingua*, Ridg.—This bird is different from the Eastern robin. It is of a light buff color and has a longer bill. Its head is not as black or dusky. The song is nearly the same, but shorter, softer and less forcible. Toward evening and early morning it may be heard on the taller trees, where it also builds its nest. It comes in November and departs in April, going north for the summer, although a few are said to remain in our neighborhood for nesting.

**RUSSET BACKED THRUSH**: *Hylecicla ustulata*, Baird.—Inhabits bushes, where it also builds its nest and lays four or five bluish eggs, spotted. Has a buff colored ring above each eye and a scorched or singed color of upper part of body and an olive-gray spotting of the whitish breast; abundant and one of our finest singers. After sundown until quite late it sends

by magic, and we only see some diamond-like bubbles rising in the water. We begin to think this music was a delusion, a figment of the brain, when at some distance the bird comes again to the surface, and if we are duly attentive, the music may be heard again.

Its nest of green moss lined with grass, shaped like an oven, with a doorway, is near or perhaps just behind some little cascade, and contains about five pure-white unmarked eggs. The Water Ouzel does not migrate.

Dr. Cooper tersely describes this bird: "It combines the form of a sandpiper, the song of a canary and the aquatic habits of a duck."

**GROUND WREN** (Ground Tit): *Chama fasciata*, Gambel.—A curious little wren, found on dry plains and "chapparal" bushes, but not in the forest. Can live away from water many weeks.

In color, olivaceous; brown tinged with gray on the head, with faint, dusky streaks on the throat and breast. With tails erect they hunt insects on the ground or low trees. They are very shy, but if we sit quiet, out of curiosity it will come quite near.

It makes its nest of straw twigs and feathers firmly interwoven in low bushes. It lays three or four plain bluish-green eggs.

It is a charming little musician, "original and selected," for it is said at times to imitate other birds when tired of its own notes. Not migratory.

**BEWICK'S MOCKING WREN**: *Thryothorus Bewicki var spiliurus*, Vigors.—Inhabits open groves and dense forests. Color, ashy-brown above, and pure-white beneath and inside the wings, with a speckled tail. Nest in holes of trees or low bushes. Eggs, five, white with brown specks near larger end.

It is a fascinating singer, gliding at times into notes of other birds, but his arrangement is original and interesting. Not migratory.

**WESTERN WINTER WREN**: *Anothura Tro-*

eye and a wide frontal or breast band, which extends up over the throat, of a light color. Remains with us nearly all the year.

"In May or June the males rise nearly perpendicularly into the air until almost out of sight and fly about in an irregular circle singing a sweet and varied song for several minutes, when they descend again nearly to the spot they started from."—Cooper.

They build their nests in a depression on the ground under a tuft of grass or a bush, lined with hairs. Eggs, four or five, bluish white with darkish spots nearly covering them. Walks, but does not hop on the ground like many other birds.

**WESTERN ORIOLE**: *Icterus Bullockii*, Swain. A most beautiful and musical bird. Arrives about March 1st from the South. They resort to the open roads, gardens and small groves, where they sing and feed on insects, doing the farmer and gardener a good service in two ways—cheering him with the sweetest music while clearing his trees and grounds of injurious insects, for which they deserve and should have humane protection. They are beautifully colored with black and yellow-orange in varying bands.

Their nests are usually built near the extremity of a limb on some small tree, and are composed of the down of plants, wool and fine bark, sometimes white horsehair or cotton twine. Eggs, four to six, bluish white with pencilling or winding streaks. They are closely allied to the Baltimore oriole. When once seen or heard, they cannot be forgotten.

**WESTERN MEADOW LARK**. *Sturnella neglecta*, Audubon.—Lives near the earth, loving grassy fields and plains. Of large size, singing at all seasons. In early spring it holds "musical contests" with its neighbors. Even the female is a good singer, which is unusual among birds.

Although it is said to be identical with the Eastern meadow lark, and the one of the plains



# AGRICULTURAL NOTES.

## CALIFORNIA.

### Fresno.

**TREE PLANTING AT REEDLEY.**—*Exponent*, April 23: John Fairweather has set out 40 orange trees of the Oonshin and Navel varieties, among his grape vines on his five acre colony lot adjoining town. It is his intention to set out a great many more orange trees and in time, when they become of a good size, to let them occupy the land in place of the vineyard. Wm. Wootton has, this spring, set out 100 orange trees in Wootton's Valley, in the foot hills, 15 miles east of Reedley. He will set out 75 more this season.

**WHEAT CROPS NEAR REEDLEY.**—*Exponent*: The recent cool weather which has been rather unusual for this season of the year, has been of great value, and has had not a little to do with the present prospects for a big wheat harvest.

### Laessen.

**RANGE CATTLE IN LASSEN.**—*Mail*: Stook on the range could not do better and our hills and plains show there was little or no loss last winter; with the addition of a vast number of young calves and colts the prospect is fine.

### Los Angeles.

**STRAWBERRIES FOR DENVER.**—*Covina Argus*: Arrangements are being perfected for shipping carloads of strawberries to Denver in refrigerator cars. The parties who are in charge claim to be able to put the berries in Denver in three and one-half days, at a cost of two cents per pound.

### Orange.

**DISCUSSING HOW TO SET OUT TREES.**—*Blade*, April 23: At the recent meeting of the Garden Grove Farmers' Club the subject of setting out trees was discussed. Mr. Ware thought, from his observations, that the opinion was pretty universal among horticultural men that leaning the tree toward the southwest was necessary to prevent sun-scauld of the bark. He also thought there were very few, if any, orchards in this part of the county that had not suffered more or less from ann-scauld. J. Sturges thought his trees were not affected by it; gave care and attention as a reason for his lack of trouble; also low heading trees. F. P. Chaffee thought good cultivation the best preventive measure. Several spoke of using clay or whitewash on the bark of the trunk to protect it from the rays of the sun. Others believed in setting the tree straight and pruning it so as to shade the trunk. It was pretty generally admitted that if trees could be kept in a constantly vigorous condition through the growing season there would be little ann-scauld to bother, but owing to the long rainless summer season, it was conceded to be a difficult thing to do, hence the desirability of shading or in some other way protecting the tree from the direct rays of the sun.

**PLANTING BLUE GUM TREES.**—*Post*: Mr. C. Hopkins of Pasadena recently purchased 100 acres of land on the Garden Grove road, near the Santa Ana river, which he is planting to blue gum trees. The trees are planted 12 feet apart. The tract of land which has heretofore been almost valueless, will, in course of a few years, net Mr. Hopkins a nice little sum of money. There is considerable land in that neighborhood that is now growing to sagebrush and willows, that might, with a little effort, be made to pay handsomely.

### Sacramento.

**A FIVE YEARS' HOP CROP CONTRACT.**—*Bee*, April 24: It is stated that the Lovdals have contracted directly with brewers to furnish 1500 bales annually for five years, the price not to be lower than 15 cents per pound. The Lovdals have over 300 acres in hops.

**LIGHT HAY CROP.**—*Galt Gazette*: It is the general opinion that hay will be a scarce article next fall. It is said that nearly all the land heretofore used for meadow purposes is planted to wheat and barley this season.

**CROPS NEVER LOOKED BETTER.**—*Record Union*, April 27: Supervisor E. Greer told a *Record Union* reporter that the outlook in the county for the fruit crop is unusually bright. "I think we're going to have a phenomenally prosperous fruit year. Everything except the peaches look beautiful and healthy throughout the county, and particularly in my district. When I say 'except the peaches' I don't mean to say that the peach crop is a failure—not by any means. The leaves of the peach trees have been falling considerably from some unknown reason, and this may hurt the crop some, but not enough to call it a failure. But everything else is in magnificent condition—particularly cherries, plums, almonds, strawberries, blackberries and raspberries. I tell you California is rushing to the front like greased lightning, and Sacramento county is right in it." L. Scatina of San Francisco, who had been for a week inspecting the orchards and gardens along the Sacramento river, south of this city, says: "I never saw such crops in that section. The trees are fairly loaded down with young fruit." "Which variety," he was asked, "appeared to be in the lead?" "Every kind is doing well, and the yield will be very great. The orchardists thought they had a big crop of apricots last year, but they will have more this year. The same is true of cherries, pears and all other fruits. And what is more, the ground crops will be just as heavy. There isn't an article grown in those orchards and gardens along the

river that doesn't give promise of the heaviest yield ever known. The same conditions are manifested on the islands. You never saw things growing as they are on Grand Island. The potatoes and other ground crops will be immense, while the trees are as heavily loaded with fruit, as on the main land. I tell you, people will have an opportunity this year to realize the value of fruit and garden lands in that locality." Farmers and fruit-growers from various parts of the county were also seen on Saturday, and all said they had never known brighter prospects than those which now confront the tillers of the soil. The cool weather has prevented cherries and strawberries from ripening as rapidly as usual, and there will probably be few of the former shipped within the next two or three weeks, but by that time they will be coming in in considerable quantities. Other varieties of early fruits will soon follow, and almost before we become aware of it, the fruit-shipping season will be upon us.

### San Benito.

**THE CROP OUTLOOK.**—*San Benito Hollister Advance*, April 24: Favorable weather of the past week added greatly to the prospect for good crops. The late-sown grain is looking especially well. Wild oats are heading out, and haying will commence in a week or so. The high price of wheat will tend to restrict the cutting of hay. Hay will therefore command a good price.

### San Bernardino.

**IMPROVEMENTS AND CROP PROSPECTS.**—*Editors Press*:—On the 17th and 18th the long deferred rain came and made the farmers smile as the prospects were looking hard. The crops are light and harvesting is later coming on than last year, though some of the neighbors have commenced outing volunteer grain for hay. Hay has been very scarce and high lately, the price going up to \$20 per ton. Corn is up and looks well. A great many trees are being set out, mostly orange and prune trees where they expect water this season, and peach, blue gums, pepper, etc., on the higher dry land. All are starting finely. It is expected that the water will be in the valley in a few days, for the pipe is all laid on the north side of the hills and the tunnel is completed and ready. Ditch digging and pipe laying is being pushed vigorously, about 5½ miles per day. The many houses of the settlers, and the white tents of the diggers and graders give the valley quite a different appearance from what it had as a sheeprange.

Bees men complain that their bees are not doing much this spring so far, but hope when the warm weather sets in they will do better. This has been a very windy season, but grain has kept remarkably green and fresh through it all, and some that looked as though it would not amount to anything is taking a fresh start since the rain. The farmer needs to keep his weather eye open and try to get some of the good prices that his produce will bring, and not let speculators get it all.—L. S. LYMAN, Alessandro.

### San Diego.

**CROPS INSURED.**—*Editors Press*: We have just had the best rain of the season when we think of computing or undertake to compute the good it will do in this part of the country. We are now sure of a good crop of hay and grain all through this county. This rain will no doubt guarantee our honey crop, which is no small part of our calculation in this "land of milk and honey."—L. Y., Elsinore, April 18th.

**CROPS AROUND SANTA MARIA.**—*Cor. San Diegoan*, April 23: We are having showers now in good earnest, and by and by we will have plenty of flowers, and the "busy bees" will with their present extra good condition reap the benefit. Bees never had a better spring to build up in and I never saw them in better condition, and I have been in the business since 1875. The farmers will greet you with a smile now and treat you with the best they have, for with the present showers, the grain crops have revived, and look 100 per cent better than they did two weeks ago. In fact the prospects were never more flattering than at present for good crops of all kinds. There are about 2600 acres of wheat and barley sowed in the valley this year.

There have been about 20,000 fruit trees planted in the valley this season, mostly French prunes and some oranges. If no unlooked for pests or disease prevents, this valley will in a few years be one of the best fruit producing districts in the county, as the soil and climate seems to be especially adapted to growing healthy and thrifty looking trees. So far our worthy fruit inspector has not found any bugs. A good many farmers and orchardists will now be able to commence plowing for summer fallow to plant to grain, trees and vines next year. Quite a lot of corn and potatoes will also be planted.

### San Luis Obispo.

**ADELAIDE CROPS.**—*Cor. The Moon*, April 24: Farmers are busy preparing for the large harvest and the grain is mostly well headed out. The old settlers declare that the outlook for a bountiful crop was never so good. Small beads and harvesters will soon be in demand.

### Solano.

**NEW INVENTION TO PULL UP DISEASED VINES.**—*Dixon Tribune*, April 25: Dr. W. H. Wells is grubbing up the vines in his vineyard, which have been infested with phylloxera for several years past. It was found necessary to remove nearly every vine on the place, many of which were very old and deeply rooted, and would

have been a task of considerable magnitude under the old method, which required the services of three men and a span of mules. The process has been simplified through the ingenuity of Ross Richards, an employe on the farm, who has invented a stump-pulling machine of simple construction but marvelous power, and requires but two men to operate it. The new machine will pull about 150 stumps a day against 30 or 40 in the old way.

### Tulare.

**FRUIT PESTS IN TULARE.**—*N. W. Motheral in Sentinel*: A few days since my attention was called to the fact that the young trees planted this season were being killed or the buds destroyed by some insect, and as the buds were being eaten out the young tree would not bud again. Parties thought it was a black bug that did the work. Close scrutiny revealed the fact that the black bug was attracted to the tree for the gum issuing from the wounded buds, and that a little active nocturnal worm, the larva of a moth, also nocturnal, known as *Anarsia Lineatella*, is doing the work. This is also known as the peach moth or strawberry root-borer. There is said to be three crops of this insect in a year. Later in the season they will be found in the apricots, peaches and plums. If we have no first crop of these pests we will have no second or third. Remedy: Spray in January with sulphur and lime.

**FRUIT YIELD NEAR HANFORD.**—*Hanford Sentinel*: C. M. Blowers says the Royal apricot trees are heavily loaded and will yield from 350 to 400 pounds to the tree. Other varieties, the Thomas Late, Hemskirk and peach apricots are a light crop. His prune crop will be fair, but will not reach the phenomenal yield of last season. He thinks it is a question as to whether the frosts are as much responsible for the small crops reported by some orchardists as is the lack of water. He believes in early irrigation of orchards and the shutting off of water after the first of May.

**FRUIT PROSPECTS IN TULARE.**—*Times*, April 23: Orchardists generally report that the peach and prune crops of this county are much heavier this season than last. Here and there apricots were damaged by frost, but the yield will be larger than for several years previous. All damage from frost is now passed, and every one knows what his crop is to be. All of the peach crop will have to be thinned out to prevent the trees from breaking down as the crop begins to ripen. This labor alone will give employment to many people. Where prune trees have not been pruned of late, the indications are that trees will be broken all to pieces as the fruit matures.

**WEASELS AND GOPHERS.**—*Hanford Journal*: One of the greatest pests which the farmers of this country have to contend with is the gopher. W. S. Camp, the real estate agent, who owns a farm near Grangeville, has been greatly bothered with them. One day last week, while walking over his alfalfa field, Mr. Camp noticed that the gophers were not doing the usual amount of work therein, as the mounds they throw up were not so numerous as of yore. He could not account for the disappearance of the rodents, but in the afternoon he found out the cause. While walking about the place with a neighbor, H. L. Parker, showing him his vines and trees, alfalfa, etc., Mr. Parker's attention was attracted by what appeared to be a squirrel scampering across the field. He watched it and saw it disappear down a hole. As the men were walking toward the place where the animal disappeared, they observed it appear again, but this time it bore in its mouth another animal of nearly its own size. Out of curiosity, the men chased the live animal and forced it to drop its burden and make for its hole only a few feet away. It turned out to be a weasel and its burden a dead gopher, which had been but recently killed. Mr. Camp at once saw why the gophers were getting scarce in his alfalfa field, as he had seen a good many weasels about and had killed two that morning.

**SUMMER FALLOW IN TULARE.**—*Register*: Last spring M. Premo plowed 26 acres of his land for a vineyard, but failed to get his vines in and the past winter it was planted to wheat with the rest of his land. He says that on this 26 acres the grain is looking remarkably well and will go from ten to 12 sacks to the acre without another drop of rain. Not more than a dozen yards from the edge of this piece the grain is yellow and well-nigh a failure. He expresses himself as being a convert and says he will summer-fallow hereafter if it does cost a little more to get a crop in. The chief argument against summer-fallowing is that it gives the weeds a chance and that they choke out the young grain. The cure for this is in selecting the proper time to plow. If plowed in the winter, run over again lightly in May and then plowed in the fall when the grain is planted the weeds will not get sufficient start to do any material damage.

### Yuba.

**HOP CROP NOTES.**—*Wheatland Four Corners*: There is en route from England two casks of hop roots for planting on Bear river bottom. The roots are of the English best varieties. Several carloads of trellis poles arrived from the hill this week for the Wood, Roddan and Duret yards.

**FRUIT CROP.**—*Marysville*, April 25: B. G. Stabler has 44 acres of bearing apricot, peach and nectarine trees, which he says have four times too much fruit on them. He thinks it

will require five men three weeks to thin them properly. He says the orchard fruits are early this year, but not quite as early as he has known them to be in other years. Mr. Stabler has planted, during the past season, 1700 orange cling and 350 fig trees and 9000 Thompson's seedless grapes. He has also planted 30 acres to melons, and will plant about 20 acres more. He plants his melons between the trees, and usually after he has done his cultivating.

### OREGON.

**WESTERN OREGON WEATHER CROPS.**—*Weather Bureau Report*, April 25: The rains the past week were very beneficial to crops on uplands. On the lower lands seeding is not all done and it will now be further delayed. Fall sown wheat and oats have fine growths, and in sections it is being pastured down. Spring grain that has been sown is doing finely. The fruit crop is thriving. All trees are generally in full bloom. Present indications point to a phenomenal fruit crop this year. Hops have good growth. They are from one to two feet above the ground. The hop acreage has been increased. More potatoes than usual have been planted. Straw and other small berries are coming on finely; berries promise to be unusually plentiful. Lambs are doing well. Preparations are being made for shearing which will be in full blast next week. The week closes with most favorable prospects for western Oregon crops and productions.

**EASTERN OREGON WEATHER CROPS.**—*Weather Bureau Report*, April 25: The rains that fell the past week were needed, for the soil was becoming dry and late sown grain was not germinating. The rain gives renewed vigor to grain already up and greatly assists that not yet appearing. The rain that fell is worth a vast sum to the wheat fields. Prospects were never better for the wheat crop than they are at the close of the present week. The increased acreage and more favorable weather will produce much larger crops than the phenomenal yield of last year. Grass on the range is growing and furnishing good feed. Stock is flourishing. Shearing is in progress. Fleeces are large and wool of good quality. Fruit promises unusually well. In Wasco county there has been a largely increased acreage of water melons. Vegetables in gardens are growing rapidly. As in western Oregon, the prospects were never better for bounteous crops throughout eastern Oregon.

**FRUIT-GROWERS' CONVENTION.**—*Salem Journal*: The Marion County Fruit-Growers' Association will meet at Salem, on Saturday, May 16th. The following topics will be discussed: 1. Berry packages—what are best and most economical—samples to be shown. Mr. Keyes to lead. 2. Fruit-driers and fruit drying. Good and weak points of driers to be shown up. Mr. Jory to lead. 3. Final arrangements for berry show to be announced, and discussion.

**AFTER THE DAIRYMEN.**—*Portland*, April 25: Since W. W. Baker, the field and farm authority, was appointed State Food Commissioner, he has been rustling around in a way that shows he considers his office no sinecure. His latest exploit is the arrest of a dairyman whose place is just north of the Red house. The charge against him is keeping cows in a stable with less air than 800 cubic feet to each. The offense is punishable by either fine or imprisonment in the discretion of the court, and it applies only to cows whose milk is marketed.

**SPLENDID FRUIT PROSPECTS.**—*Oregonian*, April 25: The cool, showery weather which has prevailed for some time past has been very favorable to fruit-growers. Peach, cherry, plum and pear trees are loaded with blossoms, and around the old many apple trees are in bloom, but in the country the trees are not quite so forward. A prominent nurseryman says the prospects for the fruit crop this season are better than for many years. He has seldom seen such a show of blossom on the cherry, plum and pear trees as at present. Propagating work in nurseries has also been very successful, and he calculates that at least 85 per cent of the prune and 75 per cent of the peach buds put in have taken and are going to grow, and the grafts put in have also done well, and so have outtings of all kinds. If no late frosts come to damage fruit blossoms, and the lateness of the season renders this improbable, there will be a magnificent crop of all kinds of fruits and berries.

### WASHINGTON.

**WORK TO BE COMMENCED ON THE BIO CANAL.**—*Spokane*, April 20: Manager Granger, of the Northern Pacific and Yakima Irrigation Co., states that construction of the great Sunnyside canal, the estimated cost of which is a million and a half of dollars, will begin at once. Yakima has occasion to rejoice, for the building of this canal is the harbinger of good times for many years.

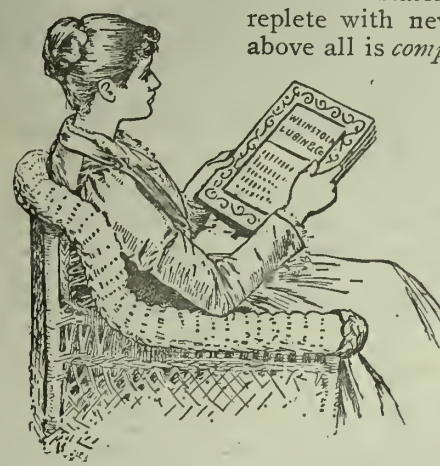
**CROPS AT OAKDALE.**—*Cor. Spokane Chronicle*, April 23: For the past few days we have had growing weather and farmers are getting along in first-class style with their spring plowing. We expect this year the heaviest crop we ever have had.

**CROPS IN EASTERN WASHINGTON.**—*Press-Times*: The grain yield of Whitman county will be 30 per cent greater this year than it was last. The same encouraging report comes from Asotin, Garfield, Walla Walla, Columbia and other counties.



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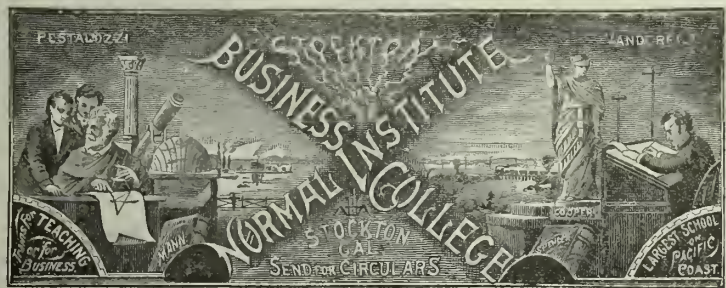
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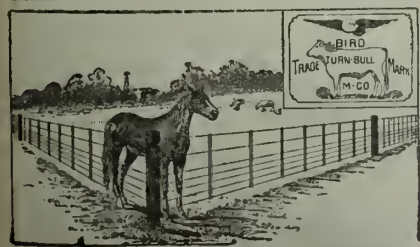
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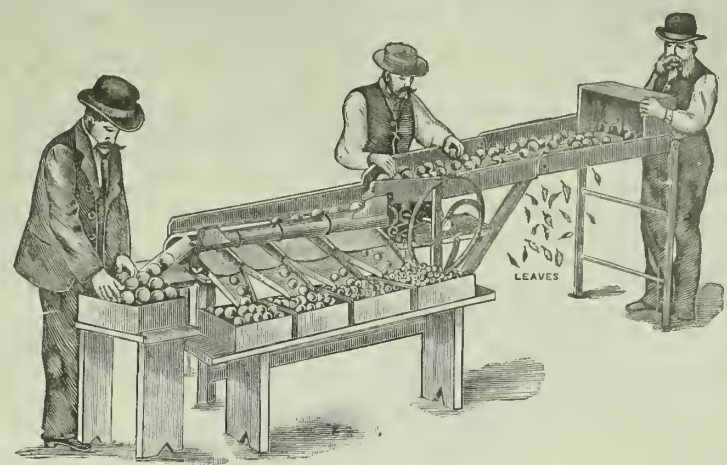
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Well discouraged and out of heart trying to get along in the world, to dress and educate the children like other people and fit them to take their true places in the world. It is

### No Wonder.

What you have to sell has been cheap, too cheap, and what you have to buy too dear by one-half. This is no one's fault in particular. If you will send for Smith's 40-page catalogue of goods for family use and look it over carefully, it will

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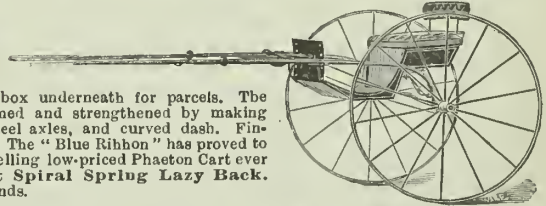
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\$35



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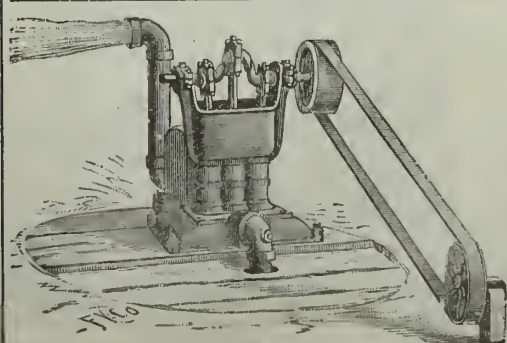
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## SHEEP AND WOOL.

## Wool Product of Eastern Oregon.

B. S. P. prepares for the *Oregonian* the following interesting statement:

Oregon boasts of her climate, productive soil, big yield of all soil productions, etc., and to these can be added the proud distinction of having one point, at least, within her State which is the largest wool-growers' delivery point in America, and this point is The Dalles. The year 1888 was the banner wool clip of Oregon, and in this year there were over 5,000,000 pounds of wool handled at The Dalles, of which ex-Governor Z. F. Moody handled over 3,000,000 pounds, making him in that year, at least, the largest original dealer in America, if not in the world. The geographical position of The Dalles, i. e. with reference to the topography of the country and transportation, makes it a natural wool-shipping point. At present this city is the leading wool market of Oregon.

Arlington, some 50 miles east of The Dalles, was for many years a close competitor of the latter place, but owing to the construction of the railroad to Heppner, Arlington lost her second place, and now Heppner is the second largest wool-shipping point in Oregon.

The winter of 1889-90 was unusually severe, and especially the month of February, 1890, which caused unusual and unprecedented loss among the bands of sheep, so that the wool statistics of the clip of 1890 is not an approximate average of the amount of wool handled at these three principal wool depots. The total receipts of wool in pounds, for the clip of 1890 was as follows: The Dalles, 3,697,971; Arlington, 855,970; Heppner, 1,762,779, making a total of 6,316,720 pounds shipped from these three points. This amount represents, to a very fair degree, the wool of Wasco, Sherman, Gilliam, Morrow, Grant and Crook counties. The average sheep in these counties will clip about seven pounds each, hence the shipment would represent 902,389 sheep. While the above is the actual amount of wool shipped, yet owing to the great loss among the sheep, before mentioned, there were about 165,000 pelts shipped; as not over two-thirds of the pelts were obtained, the loss can fairly be estimated at 220,000 sheep, which represents about 1,549,000 pounds of wool. The above is approximately the accurate result obtained from thorough investigation.

The sheep industry has been rapidly growing and developing for the past 20 years. The range, which was formerly as good as any in the world, suffered from overproduction of sheep, and hence gradual destruction of the range. For the past five years large bands have been sold and moved from the State. This, together with the great loss of one year ago, places the range to day in a less crowded and better condition than it has been for many years. The past winter was unusually favorable to stock of all kinds; the range was good and no severe weather occurred to injure the sheep. The natural annual average loss of sheep is five per cent, but this past winter not over 27 were lost. On the health of the sheep depend the quality and quantity of the wool, and also the percentage of increase. If a band is in good health and is fat, the wool has a steady, gradual growth, making it of higher marketable value than when the band is poor and thin. In the latter instance the wool grows, then stops, and when the sheep fatten up in the spring the wool again grows, making in the fleece a break, which lowers its value. From last autumn the conditions have been favorable for a good lamb product. The ewes have been remarkably healthy. Scab, as usual, is found in some sections, but in Gilliam county, especially, owing to a vigorous stock inspection, there is reputed to be less scab than in any other county. The increase this year is unusually large; in large bands fully 90 per centum of the lambs have been saved; in instances over 100 per centum have been saved, the latter in poorer-bred lambs where twins were common. The better bred the band the less liability to twins. Many bands of sheep in Eastern Oregon will average ten pounds to the fleece; others will not average over five or six; seven pounds or eight at the outside is a good general average fleece. A 32-pound fleece has been sheared from a fine thoroughbred buck. Take it all through, a one-half or seven-eighths merino is the most profitable sheep in the Eastern Oregon range. The reason is they are more hardy and do not travel as much.

The cost of sheep husbandry is more now than formerly. The range is shorter and more feed has to be provided. Then, to offset this to a certain degree, there is now a local market, while formerly all wool had to be shipped to a foreign market.

Better prices are expected this year—this for several reasons: the new tariff, cleaner wool and better quality. There is a great difference in the cost of transportation between Oregon and Australian wool. Boston is the central wool market of America. From Australia to Boston it costs for transportation \$1 per 100 pounds, a distance of 11,000 miles, while from Oregon, a distance of 3500 miles, the cost is \$2.62 per 100 pounds. The Australian wool can be grown for 6½ cents per pound. The duty on wool, corresponding to Oregon wool is

11 cents per pound; hence the price must be 1 cent for transportation, 11 cents duty and 6½ cents cost of production, or a total of 18½ cents per pound or more.

Eastern Oregon wool cannot be produced with a profit for less than 15 cents per pound; to this add 2.62 cents for transportation, and there must be a price of 17.6 cents per pound. The tariff gives at least 0.9 of a cent per pound to every pound of wool grown in Oregon. Hence the tariff has a beneficial effect on the wool-grower of Oregon. Let the tariff be removed, and Oregon cannot compete with foreign producers, hence the wool market of America will be dictated by the foreign producer.

The price of sheep is from 75 cents to \$1 higher than formerly—wethers of 2 years old and upward sell at from \$2.75 to \$3 per head. They are bought up and driven to the corn States. A band of 4500 sheep (70 per cent wethers and 30 per cent ewes) sold in Gilliam county a few days since for \$2.85 per head, to be delivered at the corral after shearing, about May 1st. For general purposes, sheep of 2 years old and upward are sold. They are then in better condition to be driven long distances. Good mutton should be 3 years old and upward. Sheep do not, as a rule decrease in wool product until five years old. The range is better, hence the general sheep husbandry is better by these sheep being sold and driven from the country. Eastern Oregon wool is generally known as a heavy wool, i. e. greasy and dirty. Columbia river wool shrinks from 68 to 75 per centum in scouring. Wool from the John Day section is lighter; it shrinks from 55 to 65 per centum in scouring. The heavy wools are more generally sold in local market, and the light wools shipped to foreign, i. e., Eastern market, the latter being the higher price, hence the general average price paid here for wool is quite low; 18 or 19 cents per pound for John Day or mountain wool is not as high a price, correspondingly, as 14 or 15 cents for Columbia river wool. The wool of Umatilla and Morrow counties is heavier and not so bright as that of other counties. Oregon wool is quoted at higher prices than wools of any other section of the country, save those of sections like Montana where the wool is lighter.

The outlook for the clip this year is unusually good. The gradual improvement in the grade of sheep is now very marked; most of the wool is from three quarter blood Merino. The wool grew all winter; the quality is extra and the quantity will be fully one-third more than last year, for the effects of the severe loss of one year ago is not overcome yet. The distribution of Oregon wool can be well shown by the following shipments made from Heppner last year: Out of a total of 1,762,779 pounds, there was shipped directly East to Boston in graded sales, 650,000 pounds; to San Francisco, 350,000 pounds; to Oregon mills, 450,000 pounds; and the balance was shipped to Portland for reshipment to San Francisco and to points eastward. The above shows a large percentage to be consumed or used, i. e., manufactured into woolen goods in Oregon. Last year, from Heppner alone, 49,865 pelts were shipped, while this year not over 2000 will be shipped. In order to show the successful lambing season, one instance well known can be quoted where a man had 43 ewes and he saved from their product 48 lambs. Ninety per cent of lambs saved is generally considered to be a big saving.

A good range, healthy bands, excellent lambing season, good quality of wool and plenty of it, all tend to make the wool clip of 1891, now progressing, one of the most successful for many years.

## QUERIES AND REPLIES.

## Broom Corn Culture.

EDITORS PRESS:—Forty years ago in Wisconsin my father raised broom corn and made it up, and for 30 years of my life, up to ten years ago, I have been more or less identified with the production and manufacture of it; hence I think perhaps I am qualified to accept your invitation to write of its habits.

In this State the first week in May is the proper time to plant, and the present season is an exceptionally good one, as the late rains have been so copious. To grow a fine brush to make the best house broom, there is but little land in the State that will answer, and that is principally in Sutter county; but for a coarser fiber, for brooms for men's use in stables, wine and beer tanks and rough work generally, this fine brush is not fitted, and there are many places where the better article for this purpose can be grown. In an early day, 1857 to 1859, I think, Armes Bros. planted some on the Russian river bottom land near Healdsburg. In 1859, Mr. Winnie grew a goodly quantity on what is now the property of T. L. Rutherford, east of the little town of the same name, and in 1860 the writer commenced its cultivation near Napa. Kern county has produced some and various other localities, but it is all coarse and more or less crinkly anywhere outside of the one locality where the land is a warm, sandy loam, always moist, enabling the roots to run through it without interruption, and the temperature high even during the night. A cold night will put a kink in the brush every time.

Broom-corn is worth from \$60 to \$100 a ton, and one-third of a ton to an acre is the average crop. The finer crops growing in the favored locations should be out before the seed is ripe, in order to preserve the brush green in color, and perhaps a little tougher; but the common stock can be left until the seed is nearly ripe, then cut and dried. The seed after being properly cleaned will be worth two-thirds the price of wheat for chicken-feed, and the product will amount to half a ton per acre. Thus the outcome of the crop amounts to about \$30 to \$45 per acre.

To plant, take a wheat drill that covers nine feet, shut off all but the center and two outside drills; arrange an outrigger on the hubs, three feet from the outside drills, so the driver can keep the proper distance from the last row. Some judgment is required when hoeing to thin out the plants, a strong sail needing more than a weak sail, the plants depending to a great extent on each other. A single stalk of Indian corn growing alone would produce two or three ears of good corn, but the stalk of broom-corn by itself would be so large and coarse, it would be good for nothing, while if too many are near each other, they grow too small and fine for any use.—R. E. WOOD, Rutherford, Napa Co.

[This is very timely and interesting. Thank you.—EDS. PRESS.]

## Starting Blue Gums.

Can any of the readers of the *RURAL* give me directions for making a handy, portable hog fence? I saw a letter from your Santa Paula correspondent in regard to starting Blue Gum seeds. My experience might be of use to some one, so will give it. My soil is a red, decomposed granite and becomes very hard when not cultivated. Last September, I dug the ground for a small bed, throwing the dirt out of the way, until I had it about eight inches

deep. Then I put in a coat of chicken and horse manure about four inches deep, and then filled the hole with water, into which I then put the dirt first shoveled out. When this was well soaked, I ran over it with a garden rake, making the surface as fine as possible. Then I put a board on it and tramped it down until the surface was smooth and compact. On this I sowed the seed and covered it by sifting sand about half an inch thick over it through a piece of fine wire screen. This bed was sprinkled every evening, and in four days the little plants began to show up, and in a week it looked as though every seed had come up. These trees I have just been planting out in a grove. They are fine, thrifty trees. I started two beds of pepper trees in the same way, and have had good success.—L. S. LYMAN, Alessandro.

## Cement Cisterns, Etc.

EDITORS PRESS:—In reply to your query as to the building of cement cisterns in this State, I would say that in this place there are six, holding from 100 to 150 barrels each for five purposes. The first was built ten years ago by Dr. Geo. McCowen. It is in the form of the common flower pot covered with a single thickness of brick on edge. The arch is 9 feet 4 inches in diameter with 14 inches raise, and rests on the ground only. No supports were put under it when building it. The cement walls are of Portland cement, 3 to 1 sand, one inch thick, put on in two coats, and then a whitewash coat of pure cement. It has leaked once or twice, presumably from seismic disturbances of the ground, but on the whole is a success. The other five were built by the town for the same purpose.

I would like to know how canneries put up corn and beans to save. Domestic attempts in that line usually result in a blow out.

Another query: Will not a given amount of milk yield more cream when exposed to strong light and plenty of air, than when under reverse conditions? I notice that the lighted side of the pan always yields thicker and yellower cream than the darker side. Does the cream all rise anyway, but determine itself toward the light, or does more rise because of the light at that point.

On gophers.—The surest way I have yet found to dispose of these pests is crystals of strychnine in pieces of carrots. Open the run way by taking out a square sod, put a piece each way, and close it up again.—READER, Ukiah.

## Peaches Doubling.

EDITORS PRESS:—I would be pleased to receive some information on the subject of "peaches doubling." Are some kinds more disposed to doubling than others? It appears to be the case here; for instance, the Early Crawford is so bad there can scarcely a single one be found. What do you suppose or know to be the cause? Is there any remedy? If some are free from this overdoing business, please state the varieties. By answering this communication you will confer a favor to many of our beginners in horticulture.—L. B. D., Monterey Co.

We would like letters on this important subject.

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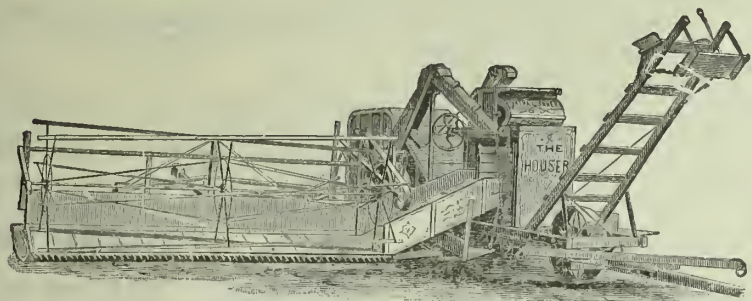
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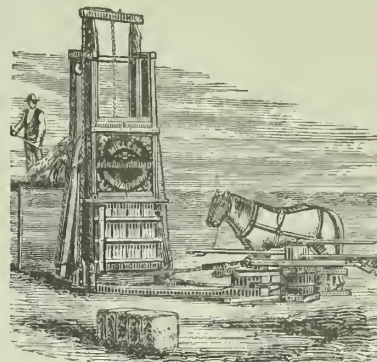
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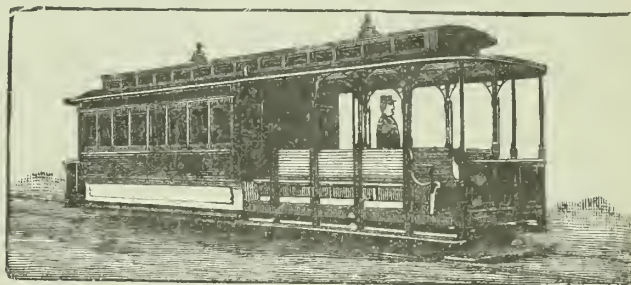


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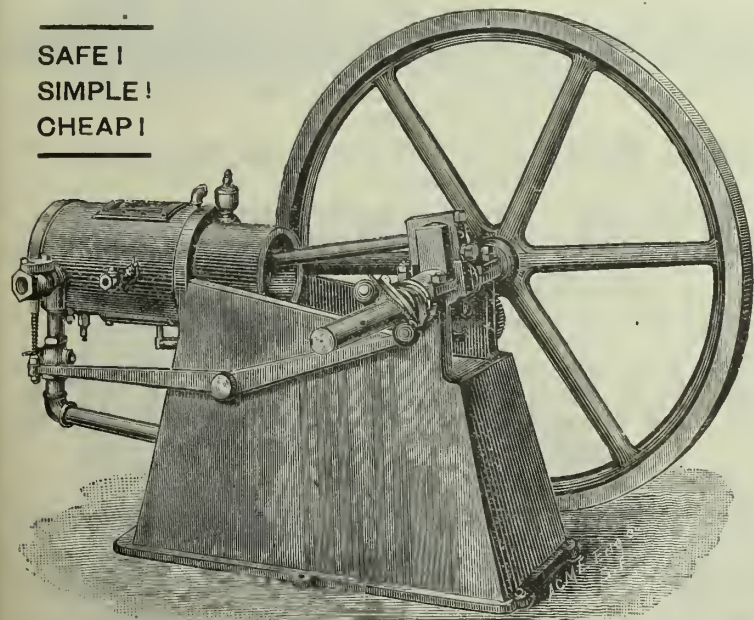
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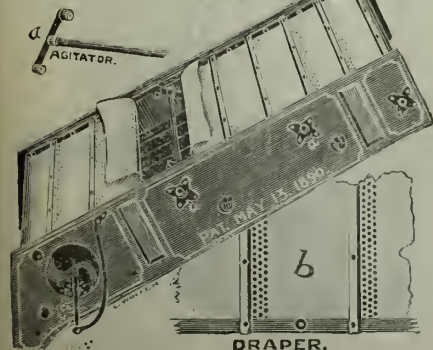
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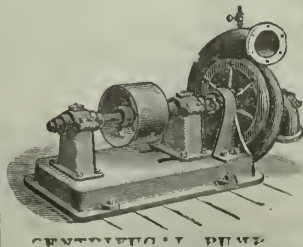
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### Our Bargain with the Inventor.

A United States patent is a contract. The parties to it are the inventor on the one hand and the people of the United States on the other. The inventor, by a public record, informs the people concerning a useful discovery which he has made, which must be original with him and new in the United States. In return, the people, by their letters patent, secure to him the exclusive right to make, to use and to sell his invention for a limited number of years. At the end of that period the contract terminates, and the discovery belongs to all the people forever. A patent, therefore, does not flow from the bounty of the community as a pension, or a shield or a medal. It belongs to the inventor by right. It comes into existence in consequence of the legal establishment of a certain state of facts, namely, that the invention is new, useful and original with the claimant. This disclosure is the consideration on the part of the inventor, who, therefore, gives the community something of value which it did not before possess. The community gives to the inventor, not something of value which it already had, as where a part of the public domain is patented to a settler, but simply protection. If the invention is valuable, so is the protection; if the invention is worthless, the protection is without benefit. Thus the contract is reciprocal and evenly balanced. The validity of a patent depends upon the maintenance of the facts established. To determine issues of validity is a function of the United States courts; to determine whether the consideration probably exists, and to make the contract itself, is the function of the United States Patent Office. "He who receives an idea from me," wrote Thomas Jefferson, "receives instruction himself without lessening mine; as he who lights his taper at mine receives light without darkening mine." An idea once made known is subject to human control only when incorporated, and therefore it can become the subject of patent only when it is tangible and existent. In the beginning it may be regarded as a marvel; in time it becomes a necessity of life, a manufacture, perhaps the basis of a great industry. In a certain sense the invention then detaches itself from the inventor, for the patent no longer protects only one man, but through him many men in their rights.

The patent system of the United States has now completed its one hundredth year. The experience of the century shows that the advantages incident to the patent contract constitute a sufficient incentive, not merely to lead people to publish their inventions, but to make them invent. The number of patents granted yearly has steadily augmented; it is now more than 26,000 and is increasing. Under the fostering protection of patents we have developed, and are developing inventors as a distinctive national product; and because of this we are enabled to exhibit to the world a growth and prosperity as a manufacturing people unexampled in the history of mankind. The patent contract secures to the inventor his right for a fixed period of time, absolutely and without limitation, save by the obligations which every man owes to society. It assumes that self-interest will best conduce to the development of the invention, and therefore, it imposes on the patentee no recurring taxes, nor does it compel him practically to operate his device. A patent grant is not made in payment for an invention, in the sense that one is a measure of value for the other, but in return for its disclosure. No one can assess the value of a new discovery to the human race for all time. The more important it is, however, the more incommensurate become the returns obtainable during the latent period. The millions made from the patents on the sewing machine, or the reaper and mower, or the telegraph, or the telephone, are utterly inconsiderable beside the enormous benefits which the public acquires through all futurity from these inventions. Whether the thing contrived is to underlie a great industry or whether it is merely an improved pin, the inventor, to be entitled to his patent, must disclose it fully, and without restriction or reservation; so that when the patent term shall be finished, the public may be able to make and use the thing as well as he himself can make and use it. He is entitled in return to equally full, unreserved and unrestricted protection. To lessen the enjoyment of that protection, or to limit it by harassing requirements, such as taxes or obligations to work the invention, as the opponents of the system have proposed, would amount simply to failure on the part of the people to comply with their side of the contract.—Park Benjamin in the Forum.

THE SOURING OF MILK IN THUNDER STORMS has just received a scientific explanation at the hands of an Italian savant, Prof. Tolomei. He has found that the passage of an electric current directly through milk, so far from souring it, actually keeps it sweet, so that it does not turn until the sixth day; when, however, an electric current is passed over the surface of milk it soon becomes sour, and this the professor attributes to the generation of ozone, since the souring is more rapid when the current passes silently than when it is discharged explosively, more ozone being generated by the former than by the latter method. The fact that the souring of milk can be retarded by so simple a procedure as the passage of an electric current may prove of practical value, and offer a safer way of preserving milk than by the use of antiseptics.

THE GREATEST IRON PORT IN THE WORLD.—Escanaba is the county seat of Delta County, Michigan. It lies at the foot of the great pine forests, and overlooks Little Bay de Nequet, the headwaters of Green Bay. Five years since it was practically a village in the wilderness. To-day finds it a city with a population of 8,000, lighted by electricity, having a well equipped fire brigade, waterworks with a capacity of 4,000,000 gallons per day, a high school and three other schools, six churches, three newspapers, a railway station where 216 trains arrive and depart daily, and it will shortly have an electric street railway in full work. Its annual retail trade is estimated at \$3,000,000, and its wholesale trade, including iron ore, pig iron, lumber, and coal, at about \$25,000,000. According to Mr. Nurse's carefully written report, capable of the fullest verification, Escanaba is the greatest iron port of the world. He tells us that during the navigation season of 1890 it shipped 3,700,000 tons of iron ore, or nearly double that of all the ore ports of Michigan, Wisconsin, and Minnesota combined. Its lumber output amounted to about 120,000,000 feet, while the freight capacity of the vessels entering and clearing from its port exceeded 8,000,000 tons. This compares with the tonnage of the greatest seaports of the world, which are: (1) London, 19,000,000; (2) Liverpool, 14,000,000; (3) New York, 11,000,000; and next comes Escanaba with 8,000,000 tons.

UNINFLAMMABLE WOOD.—Wood cannot be rendered incombustible, or, more strictly speaking, non-alterable by heat, but its non inflammability may, to a considerable extent, be insured so as to preserve buildings from a limited and temporary fire, at any rate until assistance arrives. It is, however, hopeless to expect a building encumbered with inflammable substances to pass through such a test uninjured. The methods of preserving wood against fire are of two kinds—the injections of saline solutions and the application of a paint or coating. The former appears but little practical; and, indeed, short of proof to the contrary, it must be considered dangerous in the case of wood of large dimensions. This system is, however applicable to small pieces of wood. Of all the substances recommended, a concentrated solution of phosphate of ammonia is undoubtedly the best, the use of this substance, notwithstanding its high price, possessing such great advantages that it should be employed in all cases where expense is no object. In the majority of cases, however, coating with a brush is the only practical solution of the question, and Professors Bondin and Denny, of Ghent, recommend as the substance most suitable for use in this manner cyanide of potassium and asbestos paint.

THE RAPIDITY OF THOUGHT.—Much speculation has been set on foot in regard to the rapidity of thought; but Prof. Donders of Utrecht has recently made some interesting experiments in this direction by means of two instruments, which he calls respectively the "neomatachograph" and the "neremachometer." His experiments thus far show that it takes the brain one sixty-seven hundredths of a second to elaborate a single idea. He says: "Doubtless the time required for the brain to act is not the same in all individuals. I believe, however, that these instruments may be so far perfected that we shall be able to determine the mental caliber of our friends without our friends knowing that we are testing their aptness." And again: "For an eye to receive an impression requires seventy-seven hundredths of a second, and for the ear to appreciate a sound, one hundred and forty-nine hundredths of a second is all that is necessary, which, however, note with nearly double the rapidity of the eye."

THE PARTITIONMENT OF AFRICA.—Only 2,500,000 of the 11,000,000 square miles of Africa remain in the hands of native rulers. France has 2,300,247 square miles, England 1,900,445, Germany 1,035,720, Congo Free State 1,000,000, Portugal 774,993, Italy 360,000, Spain 210,000. While the share of France is largest, England's is most valuable.

#### WANT A BUGGY?

Why of course you do. A moonlight ride is enhanced a hundred fold if the Buggy is all right. Does the name Pioneer suggest anything? The "Complete Horse Book" tells you where to buy it. Sent for 10 cents, silver or stamps. Pioneer Buggy Company, Columbus, Ohio.

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Persons receiving this paper marked are requested to examine its contents, terms of subscription, and give it their own patronage, and as far as practicable aid in circulating the journal, and making its value more widely known to others, and extending its influence in the cause it faithfully serves. Subscription, paid in advance, 5 mos., \$1; 10 mos., \$2; 15 mos., \$3. Extra copies mailed for 10 cents, if ordered soon enough. If already a subscriber, please show the paper to others.

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Shows signs of falling, begin at once the use of Ayer's Hair Vigor. This preparation strengthens the scalp, promotes the growth of new hair, restores the natural color to gray and faded hair, and renders it soft, pliant, and glossy.

"We have no hesitation in pronouncing Ayer's Hair Vigor unequalled for dressing the hair, and we do this after long experience in its use. This preparation preserves the hair, cures dandruff and all diseases of the scalp, makes rough and brittle hair soft and pliant, and prevents baldness. While it is not a dye, those who have used the Vigor say it will stimulate the roots and color-glands of faded, gray, light, and red hair changing the color to

### A Rich Brown

or even black. It will not soil the pillowcase nor a pocket-handkerchief, and is always agreeable. All the dirty, gummy hair preparations should be displaced at once by Ayer's Hair Vigor, and thousands who go around with heads looking like 'the fretful porcupine' should hurry to the nearest drug store and purchase a bottle of the Vigor."—The Sunny South, Atlanta, Ga.

"Ayer's Hair Vigor is excellent for the hair. It stimulates the growth, cures baldness, restores the natural color, cleanses the scalp, prevents dandruff, and is a good dressing. We know that Ayer's Hair Vigor differs from most hair tonics and similar preparations, it being perfectly harmless."—From Economical Housekeeping, by Eliza R. Parker.

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PREPARED BY  
DR. J. C. AYER & CO., Lowell, Mass.  
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Dividends paid to Stockholders... 675,000  
OFFICERS.

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ALBERT MONTPELLIER.....Cashier and Manager  
FRANK McMULLEN.....Secretary  
General Banking Deposits received, Gold and Silver  
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The Best, Lightest, Cheapest Engine in the world. Can be arranged to Burn Wood, Coal, Straw or Petroleum. 5 or 8 H.P. Mounted on skids or on wheels.

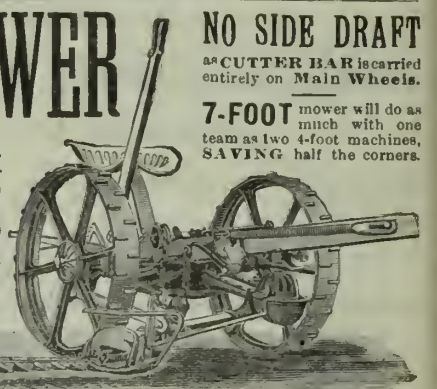
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ONE MAN AND TEAM instead of two.  
TWENTY ACRES A DAY instead of ten.

### CUTTER BAR

has no nuts or obstructions on top; the obliquely RECESSED GUARDS bolt to finger bar with nuts on under side, leaving upper side of cutter bar perfectly smooth surface. MAIN WHEELS made interchangeable—one wheel fits either side of mower.



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7-FOOT mower will do as much with one team as two 4-foot machines, SAVING half the corners.

THE FOOT LIFT raises cutter bar with perfect ease without the aid of hand lever, the first ever made.

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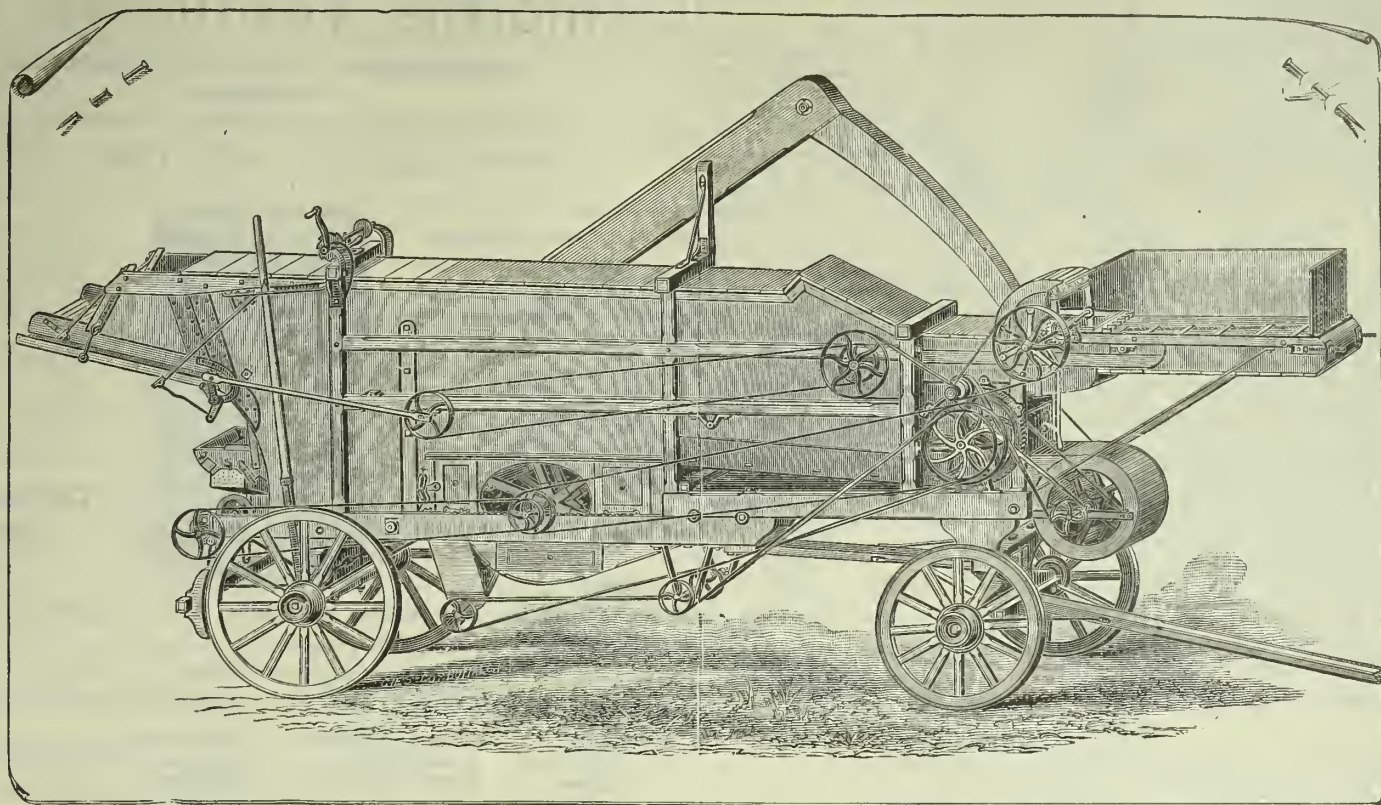
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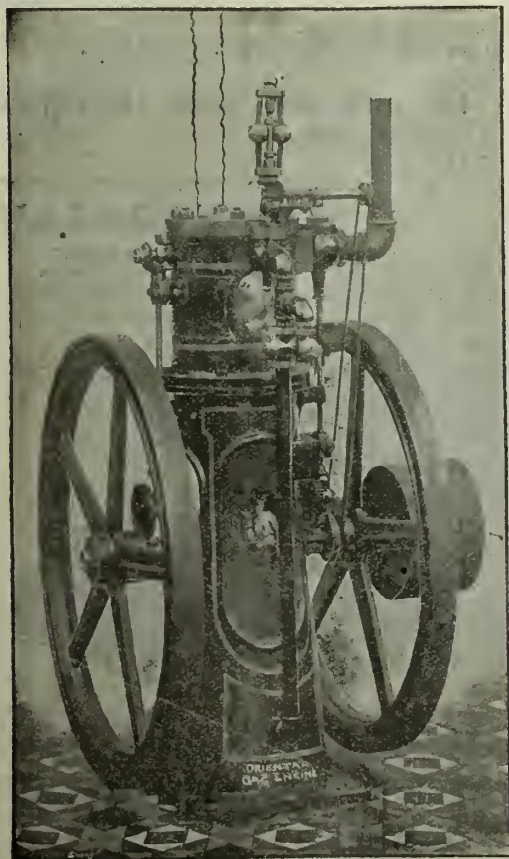


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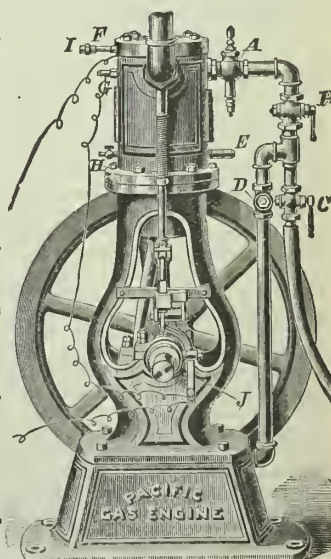
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### PARTIAL LIST OF 221 USERS OF THE PACIFIC GAS ENGINE.

J. N. Merrill, Oakland	4-H. P. Pumping
Witts & Schofield, Blair Park	2-H. P., Venetian Canal
L. A. Bickford, Napa	4-H. P. Pumping
Chas. Mubbel, Stockton	5-H. P. Launch
R. Hooker, Olympia	5-H. P. Launch
H. N. Kucher, Stockton	5-H. P. Launch
C. A. Marcher, Los Angeles	2-H. P. Lapidar
J. S. Goff, Arch Beach	2-H. P. Grindin.
W. A. Richardson, Oregon	2-H. P. Launch
J. Mazzero, Five Mile House	2-H. P. Pumping
Normal School, San Jose	2-H. P. Pumping
Kilgore & Co., Sacramento	2-H. P. Pumping
" " "	4-H. P., Printing
" " "	5-H. P. Launch

W. R. Marschmeyer, Bakersfield	4-H. P., Pumping
R. M. Murray, City	4-H. P., Carpenter Shop
J. Sebomp, Sacto	4-H. P., Pumping
W. G. Smith, Fresno	4-H. P., Pumping
Frank Davis, San Jose	4-H. P., Launch
H. MacDerm, Oakland	2-H. P., Plumbing Shop
E. P. Bacon, Alameda	4-H. P., Pump & Electric Light
Veterans' Home, Yountville	4-H. P., Pumping
Traver Improvement Co.	4-H. P., Pumping
E. A. Boyer, Sacramento	6-H. P., Pumping
Wm. Halton, Monterey	5 H. P., Cream Separator
D. R. Henschler, San Luis Obispo	2-H. P., Pumping
R. H. Clark, Gonzales	2-H. P., Blacksmith Shop
Badham Bros., City	2-H. P., Machine Shop
E. McLaughlin, San Jose	2-H. P., Pumping
N. T. Thompson, City	2-H. P., Carpenter Shop
C. A. Bachman, Stockton	2-H. P., Pumping
H. A. Bingham, Fairview	4-H. P., Cream Separator
H. F. Kmeric, San Pablo	2-H. P., Pumping
E. E. May, Tipton	2-H. P., Pumping
J. M. Asher, El Cajon	2-H. P., Pumping
Palmer & Rey, Perris	2-H. P., Printing
M. Hanson, Belmont	2-H. P., Pumping
H. F. Allen, Ross Station	2-H. P., Pumping
M. V. Lacaze, City	2-H. P., Printing
W. D. Woodbridge, Escondido	4-H. P., Pumping
Theirbock & Krager, San Francisco	6-H. P., Spice Mill
J. Twigg, San Francisco	4-H. P., Boat "Hopper"
Austin Sperry, Stockton	1-H. P., Launch
"El Franco Californian," City	2-H. P., Printing
L. Hkus & Co., Sacramento	2-H. P., Sewing Machines
Cabrera, Roma & Co., Central America	2-H. P., Elec Lt
C. S. Richardson, Visalia	2-H. P., Pumping
Wm. Falmat, Hollister	2-H. P., Grape Crusher
J. A. Moffitt, Sacramento	2-H. P., Pumping
E. H. Gould, Malaga	6-H. P., Fruit Juicer
J. D. Williams, San Jose	2-H. P., Pumping
Col. A. Mills, Fresno	1-H. P., Workshop
Farke & Lucy Co., Sydney	1-H. P., Pumping
Emhoff, Five Mile House	2-H. P., Pumping
Children's Home, San Jose	2-H. P., Pumping
T. S. Clarke, San Diego	2-H. P., Pumping
Merced Development Co.	2-H. P., Pumping
Salinas Democrat	1-H. P., Printing
Carrier Cove Printing Office	2-H. P., Printing
S. B. Patrick, Visalia	2-H. P., Printing
John Keifer, San Pedro	1-H. P., Launch
Park Henshaw, Chico	2-H. P., Pumping
L. A. Newell, Mayfield	6-H. P., Irrigating
T. Gruenhagen, City	2-H. P., Ice Cream Freezer
Thompson Bros' Eureka Foundry	15-H. P., Furnace Blowers
W. W. Montague & Co. City	10-H. P., Machinery
F. M. Fritz, Ashbury Heights	4-H. P., Pumping
E. Baron, Alameda	2-H. P., Pumping
T. Davis, Arizona	2-H. P., Pumping

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of Boiler,  
Fire  
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E. DeSable & Co., Guatemala	2-H P.	Coffee Mill
H. McNeill, Tiburon	5-H P.	Launch
Fresno Republican, Fresno	10-H P.	Printing
Halbert Bros., San Jose	4-H P.	Printing
E. Bedford, San Diego	2-H P.	Pumping
Jas. Budd, Stockton	2-H P.	Pumping
Santa Ana Fire Press, Santa Ana	2-H P.	Printing
McKee Land & Fruit Co., Merced	2-H P.	Pumping
Donahoe, Eammons & Co., Reddy	2-H P.	Pumping
H. F. Gabel, City	2-H P.	Tailor Shop
Guadalupe Mill Co.	2 H. P.	Launch
T. D. Hoskins, Stockton	5-H P.	Street Car Motor
Fresno Fair Ground Association	4-H P.	Pumping
Jos. A. Cowen, Petaluma	2-H P.	Printing
Madera Mercury, Madera	2-H P.	Printing
John Jackson, Stockton	4-H P.	Pipe Cutting
M. Taaffe, Mountain View	2-H P.	Pumping
N. M. Benjamin City	1-H P.	Ice Cream
R. H. Floyd, Clear Lake	4-H P.	Launch
J. W. Gendry, City	3-H P.	Confectionery
R. Caldwell, Lake Tahoe	4-H P.	Launch
J. E. Slinker, Hotel El Monte	1 H. P.	Pumping
New York Tea Co., Oakland	3-H P.	Coffee Mill
G. Whittell, Los Gatos	2-H P.	Pumping

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Francisco, Cal.

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## ENTOMOLOGICAL.

## The New California Laws.

EDITORS PRESS:—Will you, if not too much trouble, send me the new changes in full in the Horticultural law as made by the last Legislature and approved by the Governor. I have seen what the Press has published but do not yet understand clearly all.

GEO. E. STEWART.

Rhonerville.  
As the matter is of so great interest and importance we print below in full the new laws relating to horticultural subjects as follows:

## CHAPTER CLXXVII.

An Act to amend an Act entitled "An Act to amend an Act entitled 'An Act to protect and promote horticultural interests of the State,'" approved March 19, 1889.

(Approved March 31, 1891.)

SECTION 1. Said Act is hereby amended by adding a new section thereto, to be known as section twelve, and to read as follows, viz.:

SEC. 12. When a petition is presented to the Board of Supervisors of any county, as required by Section 1 of said Act, the said Board of Supervisors may appoint a Commission to consist of any number less than three members, at a compensation each of not less than four dollars, and if but one member, five dollars for each day actually engaged in the performance of his duties under this Act; and all the provisions prescribing the duties of and conferring powers upon the County Board of Horticultural Commissioners contained in said Act shall apply to the Commission appointed under this section.

SEC. 2. This Act shall take effect from and after its passage.

## CHAPTER CLXXXVIII.

An Act amendatory of an Act entitled "An Act to amend an Act entitled 'An Act to promote the horticultural interest of the State'" approved March 14, 1881, approved March 19, 1889.

(Approved March 31, 1891.)

SECTION 1. Section 2 of said Act is hereby amended so as to read as follows:

SEC. 2. It shall be the duty of the County Board of Horticultural Commissioners in each county, whenever it shall deem it necessary, to cause an inspection to be made of any orchards, or nursery, or trees, plants, vegetables, vines, or fruits, or any fruit-packing house, storeroom, salesroom, or any other place or articles in their jurisdiction, and if found infested with scale insects, or codlin moth, or other pests injurious to fruit, plants, vegetables, trees, or vines, or with their eggs or larvae, they shall notify the owner or owners, or person or persons in charge or possession of the said places, or orchards, or nurseries, or trees, or plants, vegetables, vines, or fruit, or articles, as aforesaid, that the same are infested with said insects, or other pests, or any of them, or their eggs or larvae, and they shall require such person or persons to eradicate or destroy the said insects or other pests, or their eggs or larvae, within a certain time to be specified. Said notices may be served upon the person or persons, or either of them, owning, or having charge, or having possession of such infested place, or orchard, or nursery, or trees, plants, vegetables, vines, or fruit, or articles, as aforesaid, by any Commissioner, or by any person deputed by the said Commissioners for that purpose, or they may be served in the same manner as a summons in a civil action. Any and all such places, or orchards, or nurseries, or trees, plants, shrubs, vegetables, vines, fruit, or articles thus infested, are hereby adjudged and declared to be a public nuisance. And whenever any such nuisance shall exist at any place within their jurisdiction, or on the property of any non-resident, or on any property, the owner or owners of which cannot be found by the County Board of Horticultural Commissioners, after diligent search, within the county, or on the property of any owner or owners upon which notice aforesaid has been served, and who shall refuse or neglect to abate the same, within the time specified, it shall be the duty of the County Board of Horticultural Commissioners to cause said nuisance to be at once abated, by eradicating or destroying said insects or other pests, or their eggs or larvae. The expense thereof shall be a county charge, and the Board of Supervisors shall allow and pay the same out of the General Fund of the county. Any and all sum or sums so placed shall be and become a lien on the property and premises from which said nuisance has been removed or abated, in pursuance of this Act, and may be recovered by an action against such property and premises, which action to foreclose all such liens shall be in the proper court by the District Attorney of the county, in the name and for the benefit of the county making such payment or payments, and when the property is sold, enough of the proceeds shall be paid into the County Treasury of such county to satisfy the lien and costs; and the overplus, if any there be, shall be paid to the owner of the property, if he be known, and if not, into the court for his use when ascertained. The County Board of Horticultural Commissioners is hereby vested with power to cause any and all such nuisances to be at once abated in a summary manner.

SEC. 2. This Act shall take effect and be in force from and after its passage.

## CHAPTER CXCV.

An Act to appropriate five thousand dollars for the purpose of sending an expert to Australia, New Zealand, and adjacent countries, to collect and import into this State parasites and predaceous insects.

(Approved March 31, 1891.)

SECTION 1. There is hereby appropriated the sum of five thousand dollars out of any money in the State Treasury not otherwise appropriated, for the purpose of sending an expert to Australia, New Zealand, and adjacent countries, to collect and import into this State parasites and predaceous insects for distribution; the expenditure of said sum to be under the direction of the State Board of Horticulture.

SEC. 2. The Controller of State is hereby directed to draw his warrant for the above sum upon the State Treasurer in favor of said Board, and the State Treasurer is hereby directed to pay the said warrant.

SEC. 3. This Act shall take effect immediately.

THE last rivet in the pipe line between the Bear Valley reservoir and the Alessandro colony is made of solid silver.

A dry, hacking cough keeps the bronchial tubes in a state of constant irritation, which, if not speedily removed, may lead to bronchitis. No prompter remedy can be had than Ayer's Cherry Pectoral, which is both an anodyne and expectorant.

## Our Agents.

OUR FRIENDS can do much in aid of our paper and the cause of practical knowledge and science, by assisting Agents in their labors of canvassing, by lending their influence and encouraging favors. We intend to send none but worthy men.

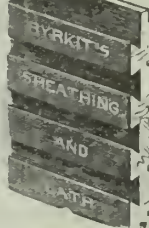
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G. B. Gill—San Luis Obispo Co.  
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The heads are warranted not to come out in transit, and no liners are required.

It is stronger and more durable than any other barrel.

Never varies in size, even to the extent of a quart.

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The Cheapest and Best Barrel on the Market.

It is Made of the Best Quality of Spruce, Woven Together with Copper Wire, And can be furnished in any size desired.

THE CALIFORNIA BARREL IS ADAPTED TO SHIPPING THE FOLLOWING ARTICLES:

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Eggs, Poultry, Walnuts, Almonds,

And Vegetables of All Descriptions.

A factory making these barrels is now in operation in San Francisco, with a capacity of 4000 barrels a day. The success of the barrel is almost unprecedented, and it is bound to become the package in a very short time. EVERY ONE USING IT IS ENTHUSIASTIC IN ITS PRAISE. IT HASN'T A FAULT. When shipped in knock-down form, about 2500 barrels can be placed in a single car. Special rates given on car lots. WRITE FOR PRICES AND PARTICULARS.

California Ventilated Barrel Co.,

No. 403 MARKET STREET, - - - SAN FRANCISCO, CAL.

FACTORY: N. W. Cor. Powell and North Point Streets.

## HILL'S IMPROVED LIGHTNING BALER.

Capacity, 32 Tons per Day.

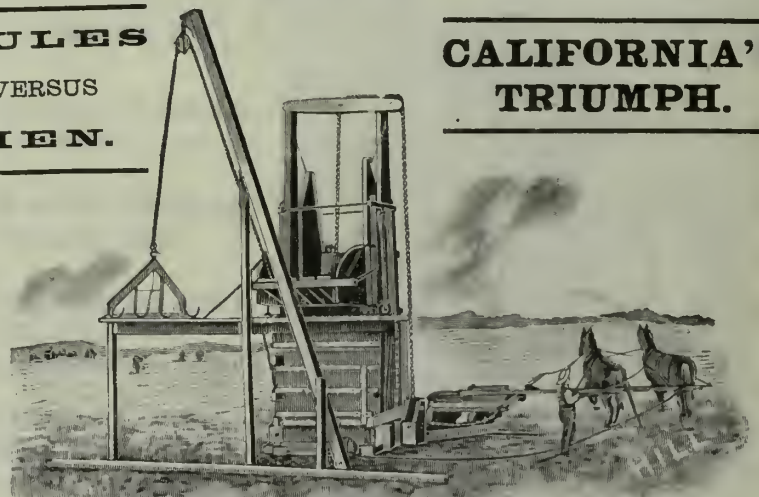
AWARDED FIRST PREMIUM BY THE CALIFORNIA STATE AGRICULTURAL SOCIETY FOR 1890.

MULES

VERSUS

MEN.

CALIFORNIA'S TRIUMPH.



No tramping. No forking from the stack. No cutting of stacks necessary. You can sit at a hundred-foot stack and bale it without a move. It makes the best bale in the market. You can put ten tons in a car. The forking from the stack is all done by the horses. The Baler can turn out more hay in less time and better style than any other Press. Here is one of the recent endorsements of this wonderful machine:

J. F. HILL—Dear Sir: We baled on James Ryan's Ranch on the Cosumnes, one mile from the Slough House, 277 bales of alfalfa hay, that weighed 32 tons and 35 pounds, with one of your Lightning hay presses on the 21st day of July, 1890. Yours respectfully,

CONNOR &amp; ANDERSON.

—MANUFACTURED BY—

Pacific Wheel and Carriage Works

J. F. HILL, Proprietor,

Office and Factories, Nos. 1301 to 1323 J St., SACRAMENTO, CAL.

SEND FOR CIRCULARS.



# WALTER A. WOOD MOWERS,

FOUR SIZES: 4 ft. 3 in. Cut, 4 ft. 6 in. Cut, 5 ft. Cut, 6 ft. Cut.

The Cutting Apparatus and Gearing are the Vital Parts of a Mower. Walter A. Wood makes the best ever yet produced and the lightest draft of all mowers. Try pulling it, in gear, with a man in the seat; then try others.

The Walter A. Wood Cutting Apparatus does not clog. By its design the largest possible amount of power is saved, from friction, for the actual work of mowing.

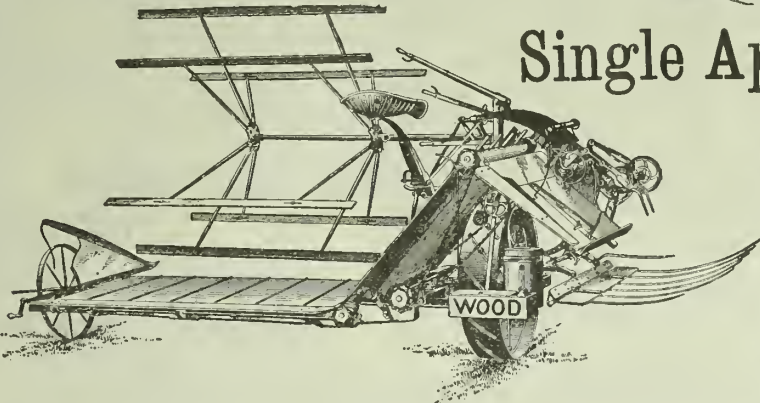
THE BEARINGS are boxed with brass—the best for light draft and durability. These boxes preserve the shafting from wear and can be easily renewed, but a worn shaft or frame is costly to replace.

THE GEARING is compactly enclosed in a dust-proof box and has the motion for heavy cutting and light draft.

THE UNEQUALED HEIGHT TO WHICH THE BAR AND DROOP FRAME CAN BE RAISED permits passing obstacles, whether under the bar or between the wheels, which would otherwise have to be driven around.

The Mower combines Great Strength with Lightness of Draft. **HIGH WHEELS, WIDE TREAD, IMPROVED PITMAN.**

JONES & SMITH, Williams, Cal., wrote us last year: "The mowing season opened here with a trial of mowers in a field of alfalfa, that had a heavy crop of fox-tail with the alfalfa. They first took a "———" into the field and after choking up many times they pulled out. Then the agent of the "———" took a machine into the field but could do no better than the other had done, and made a complete failure, only going around the field once and then gave it up and pulled out. We were asked if we would try the "WOOD'S" in the same field, which we did, and went two rounds without ever choking or making a stop, only to oil the machine. The party bought the "WOOD'S" 4 ft. 3 in., when he was offered the "———" for about \$20 less.



## Single Apron Twine Binder.

POINTS GAINED IN THE WALTER A. WOOD MACHINE NOT ENJOYED BEFORE: Greater compactness and firmness. Decreased weight. A saving of ONE THIRD in draft. Increased cleanness of Harvesting. The platform can be closed or opened at rear and the tallest grain handled without checking the progress of the heads or rubbing and shelling out grain. It is virtually impossible to choke the Binder, thus trouble and delay are avoided. It is a particularly easy machine to manage. Boys do a man's work with it. The team draws it with ease. It is a genuine two horse binder. It is different from any other, and everywhere is conceded a great improvement.

THIN STEEL PLATFORM, LAPPED STEEL MAIN FRAME, STEEL DRIVE WHEEL AND STEEL GRAIN WHEEL. The Knotter accommodates itself to all twines without readjustment. It places the knot right down against the grain while tying, thus saving a large amount of twine during an ordinary harvest. The machine is a great grain-saver and in many localities has been the only effectual way of cleaning out foul growth. It is sold under our well-known broad warranty.

# WALTER A. WOOD SELF-DUMP RAKES.

THREE SIZES: 8-FOOT, 10-FOOT AND 12-FOOT.

OPERATED BY ANY ONE WHO CAN DRIVE.

The Walter A. Wood Rake is both a self-dump and a hand-dump, though generally operated as a self-dump. A light touch of either foot of the driver causes it to dump and resume raking without noise or jar and without skipping any hay.

Steel Wheels of the Best Design ever used on a Rake. Steel Axles.

The Rake is strong, free from dead-lock, neck galling, side-jerk, dirt-scratching and liability to breakage. If desired, an attachment is furnished so the shafts on the 8 foot Rake can be quickly changed to a pole for using the mower team in place of bringing out a single horse. Seat is instantly changeable to accommodate a man or child.

— ADDRESS —

**FRANK BROTHERS, WALTER A. WOOD, President,**  
33 & 35 Main St., SAN FRANCISCO, CAL. 68 Front St., PORTLAND, OR.  
Machines and Repairs to be had at all principal points.

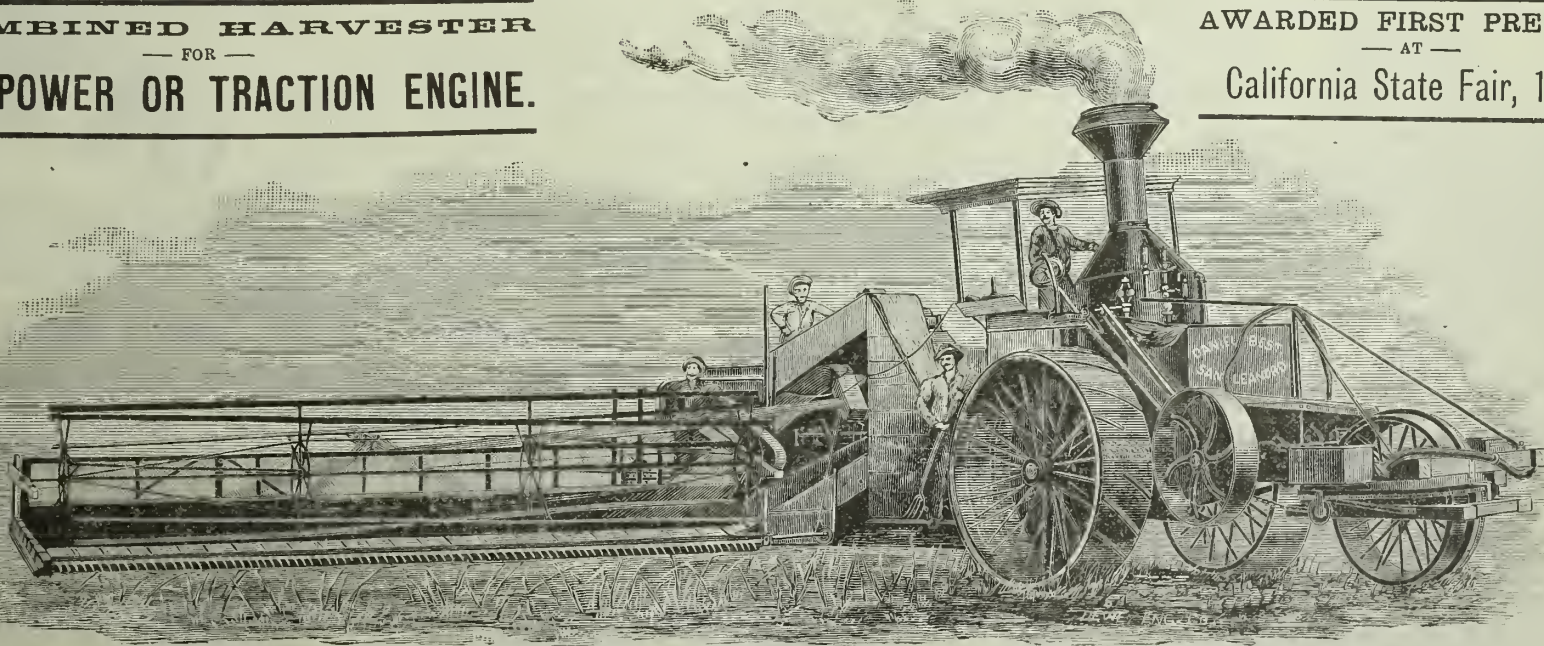
B. HAYMAN, Los Angeles; KILGORE & CO., Sacramento; JAS. PORTEOUS, Fresno, Etc., Etc.

# CALIFORNIA'S TRIUMPH!

A COMBINED HARVESTER  
— FOR —  
HORSE POWER OR TRACTION ENGINE.

AWARDED FIRST PREMIUM  
— AT —

California State Fair, 1890.



# Daniel Best's New Steam Harvester.

SHOWN AS AT WORK IN THE FIELD.

Improved for season of 1891 with all latest improvements, including Best's Peerless Grain Cleaner.

All sizes made to order, from 14 to 40 feet.

As a Steam Traction Harvester, Straw, Wood or Coal can be used for fuel.

These Steam and Horse Power Combined Harvesters were run successfully all last harvest, giving entire satisfaction in all ways in grain in every condition.

SEND FOR NEW CIRCULAR. For further information, prices, etc., address

DANIEL BEST, San Leandro, Cal.



## CEREAL CROPS.

## Rice Culture.

R. R. Smith, the large real estate owner of this county, has long entertained the idea of trying the experiment of raising rice on his tule land, and with that end in view has busied himself in getting information on the subject. A few days ago, while in San Francisco, Mr. Smith called to see Horace D. Dann relative to the matter, but the gentleman was not in his office. Mr. Dann has since received a letter on the subject of rice culture from R. J. Redding, a director of the Georgia Experiment Station, which he incloses to Mr. Smith. In his letter Mr. Redding says:

"Cultivation is entirely confined to alluvial soils along the rivers and creeks, subject or capable of being overflowed by back water induced by tides. Advantage is taken of the ebb and flow of the tide, not only to flood the fields but also to drain them, as the exigencies of culture demand, the same system of ditches being used for both purposes. The tidal rice lands of the Carolinas and Georgia are naturally below the level of the spring tides, hence they may be 'flowed' at these periods. These lands are also several feet above the level of the main tides, hence they may be drained. Embankments, or banks are constructed of earth to hold out high water or to hold it, as may be desired. When the water is admitted it is conducted through the gates and ditches around and over the field. The tide fall in the Savannah river and vicinity is about six feet.

"The first preparation for a coming crop is to clear out the ditches, spreading sediment and decayed matter over the land and burning all trash. The seeding time usually commences early in March and continues at intervals governed by the spring tides, sometimes as late as early in June. The seed is sown by a machine in drills 15 inches apart and is covered by a harrow. Early sowings require three bushels of seed per acre, later sowings two to two and one-half bushels. The sprout flow is then immediately put on, covering the fields so as to thoroughly cover and saturate the soil with water in order to induce prompt and simultaneous germination of the seed.

"As soon as the sprouts have broken the shell the water is drawn off and the ground is permitted to remain without a flow until the growing plants have sprouted through the soil and may be seen along the rows for a distance of 300 feet or less. The 'stretch' flow is then put on, completely submerging the plants. They take a growth beneath the water, according to the temperature of the water, growing several inches in from two to ten days. The water must now be lowered until the leafy plants float on the surface. This is called the 'stretch' gage and is held steadily until the end of the flow approaches, or from 10 to 40 days, according to temperature and the condition of the plants. The object of the flow is not only to stimulate growth but to destroy weeds.

"The water is gradually drawn off to avoid prostrating the plants that may have been too much 'stretched' in the low levels. The water is finally entirely dismissed and drainage fully re-established, which is now very important. The 'dry growth' continues for from two to six weeks, or until the plants have formed their first hollow joints at the base.

"The 'harvest flow' is then applied, fully submerging the land so as to wet the high grades, destroy insects and give the plants a uniform start. After 48 hours the flow is reduced to a low gage, corresponding with the low gage of the 'stretch' flow, and is then subsequently gradually raised, following the upward growth of the plants, until finally it may reach the highest level the tides will permit. By this time the plants will have obtained full growth, and the heads are shot out. The 'harvest flow' is usually applied in June or July, and is steadily retained until the grain is ready to harvest late in August or in September.

"When the grain is nearly ripe, the water is completely drawn off, and when the ground is sufficiently dry to enter upon it, the harvesting commences. The reaphook is still generally used, but harvesters are being gradually adapted to the requirements of these lands. As soon as sufficiently dried, the rice is gathered into sheaves and stacked. It is then moved to the thrashing machines, and the grain is separated and sent to the pounding and cleaning mills.

"The cost of cultivation averages from \$25 to \$30 per acre under ordinary conditions of a well-regulated plantation. The yield of paddy per acre averages from 20 to 70 bushels, the general average in the tidal regions of Georgia being almost 30 bushels. One bushel of paddy yields about 27 pounds of clean rice per bushel. The commercial weight of paddy is 45 pounds per bushel, and 100 pounds of paddy represents about 2.25 bushels, and this should yield of cleaned rice, say 51.75 pounds.

"Varieties—The most reliable varieties are gold seed and white rice, the former being adapted only to wet culture. White rice is earlier, is nearly clean, and is therefore commonly preferred. It is also adapted to high land growth."

Mr. Smith intends to experiment in a limited way, although his land is not so much subject to tides as the land in Georgia. He says

that rice has been raised successfully in Jamestown, Tuolumne county, and he thinks it can certainly be produced in San Joaquin county.—*Stockton Independent.*

## THE STOCK YARD.

## Dehorning Cattle.

Less than ten years ago, says a correspondent, when H. H. Haaff of Illinois dehorned his cow, some supersensitive neighbor had him arrested for cruelty to animals; but now in all that section, horns are an exception. It is estimated that 15,000,000 cattle in the United States are now without horns. A great many men, convinced of the advantage of dehorning, hesitate because they do not know how it is done and are afraid of injuring the cattle. The operation is a simple one. The writer dehorned 30 cows in a few minutes, one afternoon, without ever having seen the operation performed, or having any other guide than the directions given in the bulletin of a Western Experiment Station. Patent chutes are now made that are very convenient for holding the animals, but they are not essential so long as the head is kept quiet. Mr. Haaff gives the following simple directions:

1. Animal should be cast to dehorn it.
2. The head should be perfectly rigid. It is essential that there be no movement of the head or neck during the operation.
3. Do not dehorn any animal while heated or excited from driving or otherwise, and do not drive an animal directly after the operation is performed.
4. Always shape the head of a yearling or two-year-old—that is, cut off enough bone at the top of the horn, and the hide too, to give it a good top-knot appearance. Make the head shapely.
5. In case of cattle older than two years, place the saw on the matrix so as to cut at least one-half inch below the base of the horn. This prevents any stub horn growing.
6. Never put a thing on; let the head alone. Nature does the healing better than you can.
7. Have all quiet around, and having dehorned the animal, allow it to pass out of the chute at once. An expert will be ten seconds in operating on an ordinary pair of horns, and if he is more than 15 seconds, something is wrong with his chute or saw.

Avoid the new knives and shears that some have been using. They are all more or less skull crushers, and in one case that I know of the use of a pair of shears, made on purpose too, left 50 out of 200 cattle in a bad condition for months, and the owner wrote me a few weeks ago that two of those cattle still run at the head after, now, nine months' time, and the 50 were ruined for the market of last year. No, let knives and shears alone. A dehorning saw costs but a trifle, and once the operator gets his hand in, neither he nor the animal cares for the operation. At the great Denver test on imported Holland cows two chutes were used and two cows side by side, tested as to pulse and as to temperature. One cow was dehorned and the other just handled so as to scare her, and the fright ran both temperature and pulse to the same point that the actual operation did in the case of the cow that was dehorned. If care is used by not pounding or prodding or angering a bull, he will go along as meek as a lamb. It is all in how you do it. Dehorn any time but fly time.

Caustic potash, now so largely used for dehorning calves, is not a very agreeable stuff to handle unless certain precautions are observed. It has a way of absorbing moisture from the air and becomes deliquescent, and then, unless handled with care, is quite as apt to attack one's hands as to destroy embryo horns. It comes in sticks about the size of an ordinary lead pencil. These may be separately wrapped in oiled paper and kept in a tightly corked bottle, in which a few fragments of quick lime have been placed to absorb moisture. When used the oiled paper may be torn off from the end of stick, the remainder protecting the hand from injury. The parts to which it is applied should be moistened a little by the end of the finger, with care not to spread the moisture beyond the part or apply so much that it will run. The end of a stick of potash is then rubbed gently on the moistened part for a short time and the application repeated the next day until the cap of horny matter is so decomposed that it will run off completely, leaving a bare spot. This may be dressed with a little calomel, when it will soon heal. As the part to be removed at the age of the calf is not vascular, and is devoid of nerves, the operation will be almost completely painless if properly performed.—*Western Stockman.*

## ORANGE PLANTERS

Should read the advertisement of the Aloha Nurseries. The best varieties are offered at rates so low that no one need hesitate about planting for experiment, or for investment in places where the orange is known to thrive.

Use "Suicide" Gopher Traps. They are the best. See advertisement in this paper.

## THE GIANT POWDER COMPANY.

PATENT OWNERS OF

NOBEL'S DYNAMITE,  
NOBEL'S EXPLOSIVE GELATINE,  
NOBEL'S GELATINE-DYNAMITE,  
Best and Strongest Explosives in the World.

As other makers IMITATE our Giant Powder, so do they Judson, by Manufacturing a second-grade, inferior to Judson.

BANDMANN, NIELSEN & CO. General Agents, San Francisco.

## JUDSON POWDER,

The Only Reliable and Efficient Powder  
For Stump and Bank Blasting. From 5 to 20 pounds blows any Stump, Tree or Root clear out of ground at less cost than grubbing. Railroaders and Farmers use no other.

## IMPORTANT TO SCHOOL TRUSTEES.

We hereby offer to supply Schools with  
Library Books of All Kinds, Maps, Charts, Globes, Apparatus, General  
Supplies and School Furniture,  
All of the VERY BEST QUALITY, at

**SPECIAL WHOLESALE PRICES.**

We are Sole Agents for

**THE BEST SCHOOL DESK IN THE MARKET, THE  
"IMPROVED AUTOMATIC."**

Seat Self-folding. Send for Catalogue and be sure to get our SPECIAL RATES before you buy.

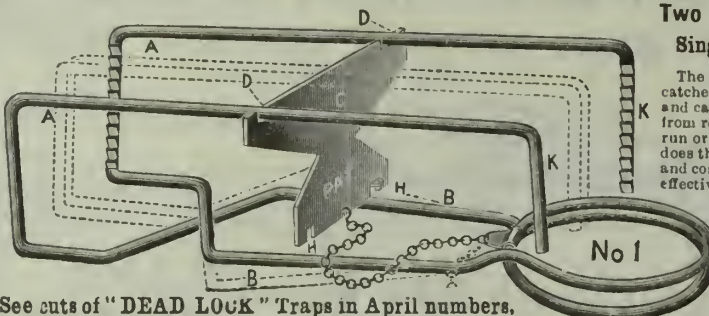
## THE J. DEWING COMPANY,

PUBLISHERS AND SCHOOL FURNISHERS,

813 MARKET STREET, - - - - - SAN FRANCISCO.

## "SUICIDE" GOPHER AND MOLE TRAP.

Two Traps in One.  
Single or Double.



The only trap which catches from either end and cannot be covered up from rear. Placed in the run or across the fork it does the work of two traps and costs less. Simple and effective. Price, postpaid, 30c, or \$3.50 per dozen.  
(DEAD LOCK Single Trap, 25c.)  
Show this to your dealer or send direct to sole manufacturers,

See cuts of "DEAD LOCK" Traps in April numbers.

IRA F. WHITE & SON, - - POMONA, CAL.

THE ROCHESTER STEEL FRAME  
ORCHARD and VINEYARD GANG.

LIGHT WEIGHT! EASY DRAFT!  
AMPLE STRENGTH!

STEEL FRAME OUTSIDE OF WHEEL

Prevents Injury During Close Cultivation.

LEVER ADJUSTS DEPTH WHILE PLOWING.



Steel Frame, Steel Molds, Steel or Chilled Shares and Lands, Tongueless, Self-guiding, Simple, Strong. A simple adjustment permits plow nearest vines or trees to make shallow furrow, say two inches, thus avoiding danger to the roots, the others plowing required depth. Weight of Three-Gang 7-inch only 200 pounds, and simply strong for hard soils. Price complete, \$38.00. The only implement with advantages of both Plow and Cultivator, thus satisfying the advocates of either. Send for Catalogue and Testimonials.

G. G. WICKSON & CO., General Agents,

3 & 5 FRONT STREET, - - - - - SAN FRANCISCO, CAL.  
348 N. Main Street, Los Angeles. 141 Front Street, Portland.

## BEET SUGAR FACTORIES

E. H. DYER & CO.,

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ALVARADO, CAL.

ERECTING AND OPERATING COMPLETE PLANTS A SPECIALTY..

Having arranged with a leading American firm for the manufacture of our machinery, we are prepared to build complete plants and furnish skilled labor to operate them when desired. We are the builders of the Alvarado, Cal., Sugar Works, and the Utah Sugar Co.'s Works, now in course of construction. We guarantee our work. Correspondence solicited.



CLARK'S CUTAWAY  
REVOLVING PLOW

A Complete Revolution in Plowing  
Requires Less than Half the Power  
of any other Gang Plow.

Strong and Durable. Makes a Perfect Seed Bed.

SEND FOR SPECIAL CIRCULAR.

HIGGANUM MFG. CORPORATION

HIGGANUM, CONN., or 183 WATER STREET, NEW YORK.



# H. C. SHAW PLOW WORKS,

Sole Agents for California for the Celebrated

## TRIUMPH MOWER,

SIZES, 4-foot 3-inch Cut, 4-ft. 6-in. Cut, 5-ft. Cut, 6-ft. Cut.

## TRIUMPH REAPER,

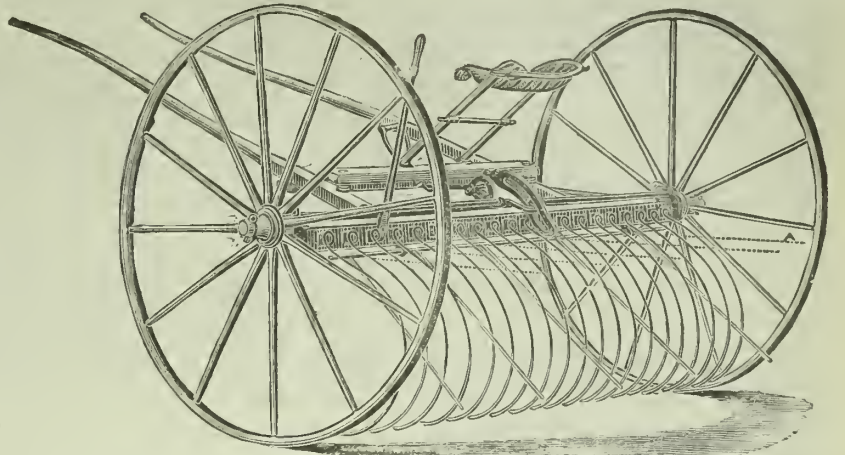
5-Foot Cut.

Hundreds in Use and all giving  
Perfect Satisfaction in  
Every Way.

It has the Lightest Draft,  
It has the Most Positive Cut,  
It has Ease of Management,  
With Perfect Adjustment.

SEND FOR CIRCULARS.

Unquestionably the Best  
Mower and Reaper  
Sold on the Coast.



## CHAMPION RAKE.

WHY IT TAKES THE LEAD.

It has our patent tooth to PREVENT SCRATCHING.  
It has NO SPRINGS to get out of order.  
It RUNS BACKWARD as well as forward.  
It has NO JAK ON THE THILLS in dumping.  
Its thills work as freely as those on a carriage.  
It will NOT CRATCH UP FINE SEEDING in harvest field.  
It is WORTH TEN TIMES THE EXTRA COST.

It costs more than Rakes with ordinary teeth, but is WORTH TEN TIMES THE EXTRA COST.  
It will run over trash lying on the ground, and leave it there.  
It will rake barley, rye, oats, Hungarian and millet free from dirt.  
It is so easily managed that a boy who can drive a horse can use it as well as a strong man.  
It can be held down to MAKE VERY LARGE WINDROWS, or bunch them up.  
It has an OSCILLATING CLEANER THAT KEEPS THE HAY FROM ROLLING and working out at both ends into the wheels.  
It will rake "scatterings" perfectly, because the cleaner keeps the bay from rolling.  
It is very easy to keep up the teeth after going over a windrow.  
It picks the windrow, leaving it in good shape for rolling up or pitching.  
It dumps DAMP PART OF WINDROW ON TOP, and saves use of bay tedder.  
It can rake the heaviest grass that grows, as soon as cut.  
It will give better satisfaction than any other rake sold in this country.

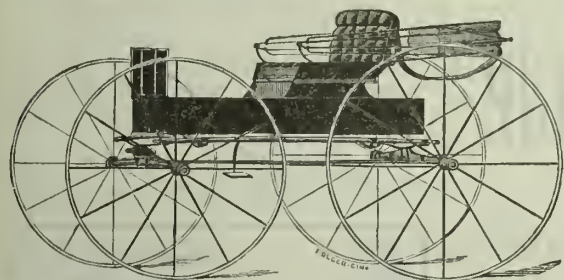
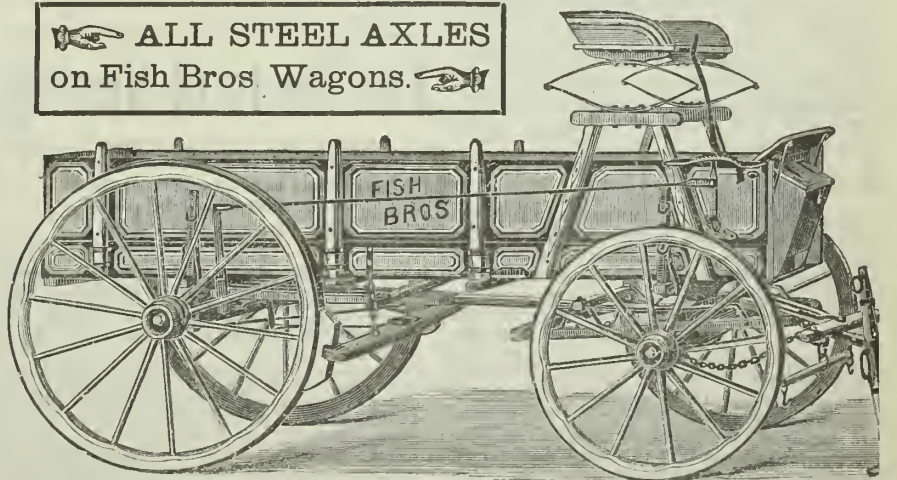
361, 363, 365, 367, 370, 389 & 391  
EL DORADO STREET, STOCKTON, CAL.

## FRANK BROTHERS, 33 & 35 MAIN STREET, SAN FRANCISCO. VEHICLES OF EVERY DESCRIPTION AND FARM MACHINERY.

### Carts and Spring Wagons

Of every style for business and pleasure,  
city, ranch and delivery purposes. The  
largest assortment on the Coast and  
built by leading manufacturers.

ALL STEEL AXLES  
on Fish Bros. Wagons.



## BUGGIES, CARRIAGES AND PHAETONS.

Improvements in style, manufacture, finish and detail work of the vehicles we now offer you, enable us to give  
important advantages for the selection of just the vehicle you require. Call on us and see for yourselves or write  
for particulars regarding our large line of BUGGIES and HARNESS for City, Country, Ranch or Livery use.  
Including, as it does, all grades of work and every variety of style, an examination will repay you.

### U. S. BALE-TIE MAKER.



SEND FOR  
PRICES.

SEND FOR  
SAMPLES.



FINE ZINCOGRAPHING  
A SPECIALTY.

220 Market Street.  
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Engravings made from photographs, drawings and original designs, for newspaper, book, card and job printing.  
Engraved prints enlarged or reduced, cheaply and quickly. Also copies of manuscript, legal documents, wills,  
contracts, signatures, portraits, buildings, machinery and printed documents reproduced with accuracy. Photo-  
graphs, stereoscopic views, etc., duplicated, enlarged or reduced. Slides for magic lanterns made from photographs,  
lithographs, and steel or wood engravings, etc. Satisfaction guaranteed. Agents wanted in all cities and in all  
towns. Address, for further information, DEWEY ENGRAVING CO., 220 Market St., San Francisco.

### STOCK SCALES

4 TON \$45.  
U.S. STANDARD. FULLY WARRANTED.  
Delivered at your R. R. Station and ample time for  
building and testing allowed before acceptance.  
OSGOOD & THOMPSON, Binghamton, N. Y.

PORTABLE PLATFORM SCALES,  
TRUCKS, ETC.

Twenty-five per cent cheaper than any other on the  
market. Send for Catalogue.

C. H. LINDEMANN, Agent,  
126 KEARNY ST., SAN FRANCISCO.

### BEST TREE WASH.

"Greenbank" 98 degrees POWDERED CAUSTIC  
SODA (tests 99.3 per cent) recommended by the  
highest authorities in the State. Also Common Caustic  
Soda and Potash, etc., for sale by

T. W. JACKSON & CO.,  
Manufacturers' Agents,  
104 Market St. and 3 California St., S. F.

"DEAD LOCK" Gopher TRAPS are best.  
Price 25c apiece  
or \$3 per doz. delivered. I. F. WHITE & SON, Pomona, Cal.



K.C. HAY PRESS CO. KANSAS CITY, MO.



## GOOD HEALTH.

### Remedy for Blood Poisoning.

It is claimed that Mr. Ernest Tanner of Baltimore, Md., a gentleman without affix of "M. D.," to his name, has compounded a remedy to counteract the ill effects from the bite of rabid animals, reptiles, insects, etc., all of which exist in such numbers that members of the human family are constantly exposed. The remedy is a vegetable compound embodying rib grass, plantain and hazel, all easily obtainable and manufactured by a simple and inexpensive formula. This medicine is taken internally, and also applied externally to the bite. A good, reliable remedy should be in every household, as poisonous insects are liberally supplied to nearly all communities, and in localities abounding in venomous snakes, no one should be without a ready antidote.

It is claimed that this remedy only requires a little systematic effort and energy to develop it into a profitable and beneficial article of large demand. If the gentlemen of the medical profession would only throw aside their professional exclusiveness, now and then, and devote a little attention to such announcements as the above, they would add, much more frequently than they now do, to their catalogue of remedies.

The history of medicine shows us that the nonprofessionals have, by either accident or study, added quite as much, if not more, to medical progress within the last three centuries, than the profession itself has done. An important factor in regard to these unprofessional discoveries is the fact that they have in nearly, if not every instance, been derived from the vegetable kingdom, while the chief study of the regulars has been almost exclusively confined to the mineral kingdom.

The tendency of the day is to substitute vegetable for mineral derivatives in the practice of medicine, and there is good reason to believe that the day is not far distant when the shelves of our druggists will be almost completely relieved of the dangerous and poisonous nostrums which owe their origin chiefly to the mineral researches of the chemist. Nature seems to have provided in the vegetable kingdom remedies for almost or quite every ailment. We have evidence of this in the animal kingdom. Nature seems to have given an almost universal instinct to animals to search out and feed upon certain herbage, which will remove almost or quite all the ailments which come to them in a state of nature. There are, however, ailments which afflict them when under restraint or an abnormal mode of life, that they do not seem to know what to do for. Man, in such cases, generally intervenes with his mineral preparations. The now well-known cancer remedy, which is meeting with such remarkable success in this city, is composed exclusively of vegetable compounds and applications of a non caustic nature, helped out only with new sweet cream or butter direct from the churn—the smallest possible remove from the vegetable kingdom. This may be regarded as a most successful application of vegetable remedies to one of the most persistent and malignant ailments with which humanity has ever been afflicted. The malignant nature of this ailment is especially manifested when treated with the knife or the poisonous mineral application, so universally, yet so unsuccessfully, employed by the medical faculty at large.

**THE ELECTRIC LIGHT IMPROVES THE APETITE AND STIMULATES SLEEP.**—It has been remarked as showing what a powerful element of health the electric light is, that the general health of those who use it improves, their appetite and their ability to sleep increase, and the visits of the doctor become less frequent. This is especially apparent in the statistics of the attendance of working people in factories and other places. In the savings bank in Queen Victoria street, London, where 1200 persons are employed, the absences from illness have been so far reduced that the extra labor gained is said to have paid for the electric light. The influence of artificial light on the eyes has also a very important sanitary bearing. It has been asserted that the injury to the eyes, of which the growing short sightedness of the day is but one result, is due to the heat rays and not to the light rays. If that be so, the electric light is less injurious than any other. If the eyes are exposed to the strong light of the arc lamp, its ultra-violet rays have a painful effect, but no one has ever complained of the influence of a steady glow lamp upon the sight, and it is possible to read and write for many hours by such a light without experiencing the least fatigue.—*New York Sun.*

**A CURE FOR DIPHTHERIA.**—The following remedy was discovered in Germany, and is said to be the best known. At the first indication of diphtheria in the throat of a child, make the room close; then take a tin cup and pour into it a quantity of tar and turpentine, equal parts. Then hold the cup over a fire so as to fill the room with fumes. The little patient on inhaling the fumes will cough up and spit out all the membranous matter, and the diphtheria will pass off. The fumes of the tar and turpentine loosen the matter in the throat, thus affording the relief that has baffled the skill of physicians.—*Hall's Journal of Health.*

**PREVENTION OF MERCURIAL POISONING.**—Jules Mayer, an employe in a French mirror factory,

has lately ascertained that by scattering through the working rooms a pint or a half-pint of aqua ammonia every evening, all danger from the absorption of mercurial vapors will be in a measure prevented. This practice has now been in use for several years in his establishment without the occurrence of any new attack of mercurial poisoning.

**COMBINATION TOOLS.**—Every man who has done out-side work, knows how troublesome the augers and long bits become when packed with their handles in a tool-chest or box. This trouble may be overcome by fitting all the augers to one handle, and all the bits to one brace; then make two chucks, one to fit the brace, the other to fit the auger handle. Make all the augers to fit the brace chuck, or rather the chuck to fit all the augers, then make another chuck to fit the auger handle and all the bits. With this combination, all the bits, augers and handles are interchangeable, and never a job can be brought along but can be handled. In addition to the handles, a ratchet chuck may be made for boring in a corner, or where there is not room enough to swing brace or auger handle.

### A PRESENT FOR BUTTER MAKERS.

We have received an account book printed especially for dairymen, with columns for amount of milk, pounds of butter churned, to whom sold, etc., for each day in the year. It also contains valuable breeders' tables, rules for making gilt-edged butter, and other interesting matter. Wells, Richardson & Co., Burlington, Vt., have kindly offered to mail a copy free to any of our readers who sends a stamp for postage.

In connection with this we would say that Wells, Richardson & Co.'s Improved Butter Color is thoroughly reliable and one that we can recommend to all dairymen. From a letter recently written by Mrs. H. P. Dunham, Lenexa, Kansas, we quote: "Several of my neighbors said they would not use anything to color their butter, but when they had to sell for several cents a pound less than I was getting, they changed their minds and now are using what I do, Wells, Richardson & Co.'s Improved Butter Color."

PLEASANTON seems a charming rural town. The Rose hotel, we understand, will accommodate many summer boarders, and at very reasonable rates.

### The Farmers' Alliance in Kansas —AND— Its Great Paper, The Advocate.

To the Alliance Brothers and Sisters of California: The Advocate desires to send greeting, and to say through the columns of the *PACIFIC RURAL PRESS*: Send for a sample copy of *THE ADVOCATE* and it will tell you how we are "holding the fort" here in Kansas and pushing the movement along with the same zeal and enthusiasm as the *RURAL PRESS* tells us you are doing on the Pacific Coast. The Advocate has over 125,000 readers in Kansas and sister States. It contains 16 p. ges, 64 columns, and bears the proud distinction of having been the most potent factor in the glorious political victories of the Alliance in Kansas. We will send you sample copy free, and 52 copies, one year, for \$1. Yours Fraternally,

ADVOCATE PUBLISHING CO.,  
Topeka, Kansas.

We will send the *RURAL PRESS* and the *ADVOCATE* one year for \$3 to any address in the United States.—PUBLISHERS *PACIFIC RURAL PRESS*.

## The Birds of Spring

If they could be weary of their songs, would find, in our great stock, an almost infinite variety of new melodies. 40,000 kinds of our old music are still called for, and the new are more numerous than the old.

**Cantatas.**—THE JOLLY FARMERS, Sargent, [40 cts., \$3.60 doz.] New, bright, easy, and all jolly farmers and their friends will like it. **HEROES OF '76**, [51, or 59 cts.] Trowbridge, for 4th of July; and **NEW FLOWER QUEEN** [60 cts., \$5.40 doz.] Root, for flower time.

**Sunday Schools** like **PRaise in Song** [40 cts., or \$4.20 doz.], Emerson; **SONG WORSHIP** [35 cts., or \$3.61 doz.], Emerson and Sherwin; **NEW SPIRITUAL SONGS** [35 cts., \$3.60 doz.], Tenney & Hoffman.

**Choirs** constantly send for our octavo music—5000 numbers of Anthems, Sacred Selections, etc., 5 to 8 cts. each. Send for lists.

**Organists** furnished with Voluntary and other music, and players on Violins, Guitar, Mandolins, Banjos and all other instruments, supplied with appropriate music. Send for lists and information.

**EMERSON'S VOCAL METHOD FOR ALTO, BASS, TENOR AND BASS VOICES** [51.60] is a new and superior method.

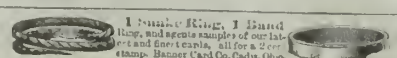
Any book mailed for retail price.

**OLIVER DITSON COMPANY, BOSTON.**  
C. H. DITSON & CO., 387 Broadway, New York City.

## SORGHUM.



To **JAMES LINFORTH**, 37 Market St., S. F., General Agent for Pacific Coast. Also Catalogue with prices of Mills delivered either from San Francisco or from the Works direct.



## Educational.

### School of Practical, Civil, Mechanical and MINING ENGINEERING.

Surveying, Architecture, Drawing and Assaying, 723 MARKET ST., SAN FRANCISCO, CAL.  
Open all year.

A. VAN DER NAALLEN, President.  
Assaying of Ores, \$25; Bullion and Chlorination Assay, \$25; Blowpipe Assay, \$10. Full Course of Assaying, \$50. ESTABLISHED 1864. Send for Circular.

## HEALD'S BUSINESS COLLEGE,

24 POST ST. S. F.  
FOR SEVENTY-FIVE DOLLARS THIS College instructs in Shorthand, Type Writing, Book-keeping, Tel. graphy, Penmanship, Drawing, all the English branches, and everything pertaining to business, for six full months. We have sixteen teachers, and give individual instruction to all our pupils. Our school has its graduates in every part of the State. Send for Circular.  
E. P. HEALD, President.  
C. S. HALEY, Secretary.

### THE PIONEER COMMERCIAL SCHOOL

Established 1863. **PACIFIC Business College,** 320 POST ST. SAN FRANCISCO. LIFE SCHOLARSHIPS, \$75. No Vacations. DAY AND EVENING SESSIONS. Ladies admitted into all Departments. Address: T. A. ROBINSON, M. A., President.

## CHESNUTWOOD'S BUSINESS COLLEGE SANTA CRUZ, CAL.

BEST EQUIPPED ON THE COAST. INDIVIDUAL Instruction. No classes. Ladies admitted to all departments. Board and room in private families, \$16 per month. Tuition, six months, \$42.  
J. A. CHESNUTWOOD, Box 43, Santa Cruz, Cal.

## "PRESERVATIVE"

ACKNOWLEDGED THE BEST AND ONLY

## Pure Preservative —FOR— MILK, CREAM, BUTTER AND CHEESE.

Will keep Milk and Cream sweet and fresh even in the warmest and muggiest weather. Butter and Cheese kept fresh in their original condition for many months.

It has been the aim of science these many years to counteract the disadvantageous influence exercised by heat and atmospheric changes upon animal and vegetable food. The experiments have been many and the remedies proposed very numerous, but all were found to be ineffectual, impracticable and useless until the discovery of Preservative was made.

### A Simple Experimental Test.

Persons who wish to convince themselves of its effectiveness should send for sample, which we mail free, and by taking two separate quarts of new milk; into one put 1/2 of a teaspoonful of Preservative; put nothing into the other, and set them side by side so that the temperature of the milk may be the same. See which keeps sweet the longer and which raises the more cream.

Preservative is the only genuine preservative that has ever been discovered. It is the cheapest, because it is not only the BEST, but because, at the same time, it is Harmless, Tasteless, Odorless, Simple, Economical, and, above all, absolutely Effective.

Circular giving full directions how to apply Preservative, as also prices and other information desired, can be had of

**G. G. WICKSON & CO.,**  
3 & 5 Front St., San Francisco, Cal.  
141 Front St., Portland Or.  
348 N. Main St., Los Angeles, Cal.

**BUDDING.** WANTED, a contract to bud a large quantity of citrus or deciduous nursery stock, or budding by the month; all work guaranteed. Address H. E. V. PICKSTONE, Postoffice box 597, Santa Clara, Cal.

## LAND

### WORTH LOOKING AFTER

—AND—

### Likely to Double in Price Soon.

## FINE VINEYARD CHOICE FRUIT RARE RAISIN AND ALFALFA LAND

### EXAMINE THIS RARE CHANCE.

A well-cultivated farm of 160 acres, with miles of fencing and cross fencing, good improvements, 7-room, two-story, hard-finished house, nearly new, plenty shade trees, large barn, blacksmith shop, milk house, grain house and other outbuildings; 7 acres of bearing orchard; 20 acres of alfalfa; large flowing artesian well of splendid water, and first-class surface wells of water; pleasantly located 7 miles from Tulare City; is offered for sale at about cost of improvements, on easy terms, by the owner, who is engaged in other business. Land sold, in lots, without improvements, at \$25 per acre. The readers of this journal are assured that this chance is worth looking after. Parties in San Francisco who know the property can be referred to. Some adjoining land can be secured at favorable rates if desired.

Address E. M. DEWEY, Porterville, Tulare Co., or A. T. DEWEY, 220 Market St., S. F.

**H.S. COMPLETE KIT OF TOOLS**  
Only \$26.  
Send for No. 16 Illustrated Catalogue.  
**TRUMAN, HOOKER & CO., San Francisco.**

### ORANGE CULTURE IN CALIFORNIA.

Now that the interest in the culture of the orange is extending so as to embrace nearly all parts of the State, a book giving the results of experience in parts of the State where the growth of the fruit has been longest pursued will be found of wide usefulness. "Orange Culture in California" was written by Thos. A. Garey of Los Angeles, after many years of practical experience and observation in the growth of the fruit. It is a well-printed hand-book of 327 pages, and treats of nursery practice, planting of orange orchards, cultivation and irrigation, pruning, estimates of cost of plantations, best varieties, etc. The book is sent post-paid at the reduced price of 75 cents per copy, in cloth binding. Address DAWAY & CO., Publishers "Pacific Rural Press," 220 Market St., S. F.



FARMERS' INSTITUTES.

What of the Five?

EDITORS PRESS:—Secretary Rusk tells us that through the agricultural journals he reaches one-sixth of the agricultural population of the country, thus covering the entire field, for he who reads no paper devoted to his calling is beyond the reach of intelligent effort in his behalf.

He probably "speaks from the card," comparing the aggregate circulation of agricultural papers with the census returns. As a practical soliloquist, experience would show that the paper of more general circulation than any other we know, reaches about one in ten where the territory has been well canvassed. These results tally pretty well, and go to show that five are jogging along in the same old ruts to every one that is even trying to get on the hard road. What are the five doing? Very much as Pa did and Grandpa did. In dairying, they are setting milk in the old tin pans and getting half to two-thirds of the cream, then using the old dash churn, and carrying the butter in a pall or basket to the groceryman, and getting about half what the sixth fellow gets for his. In fruit-growing, they plant a little of everything—prune or not, as it happens, cultivate when they feel like it, pack it in whatever comes handy, and say that the real estate men have lied about the climate and the fruit business.

In wheat-growing, they spread out thin the least possible labor over the most possible acres, and often make the statistics of average products look as though we lived in a desert rather than a garden. "What does this mean to our nation?" Why, simply this: That in Iowa, five years ago, a million cows were producing butter. One-third was thrown away in the skimmed milk, and the average product marketed for half the price of the best. It meant that Iowa dairymen were getting one-third the gross income that an intelligent application of the best methods would have yielded. We are speaking on waste of cream from an experience covering a term of years in gathering cream produced by thousands of cows, and on prices from official report of Dairy Commissioner Sherman. We leave out losses arising from failure to test cows and from imperfect churning of butter. Those who have tested cows have generally been those who were using improved methods, and it has been very common for them to report that they found one-fourth their dairy running them in debt, and that all their profit had to come from the best half. If that is the case with cows well fed and milked, with cream and butter well banded and marketed, what of the five who never tested a cow or heard of a separator? Iowa is one of the better dairy States, and instance only as one we happen to be posted about. We don't believe dairying is any more carelessly done than other branches of farming. You remember there was a great gulf between the rich man and Lazarus. Well, there's almost as much of a gulf between the worst and best of farmers. To bring up as many as possible from the lower to the higher standard means an immense advance in national wealth, and is a proper object of the Government's paternal care. Gov. Hoard referred to that when he said that every dollar Wisconsin had spent upon the Farmers' Institute had brought her back a thousand.

J. H. Hale of Connecticut meant that, when he said: "The Institute is the highest scheme in the world to boom the Grange." Get one of the five out this year to the Institute, two next and so on, remembering that every time we have waked up one of the five to a vital interest in progress, we have doubled our present effective force in any institutions designed to advance common interest through advanced ideas and improved practice. Remaining as they are, we may fairly infer that the five are no more likely to profit by Secretary Rusk's report than Ingersoll to accept the scheme of redemption.

Get them to think there is something to find out that is worth knowing, and they will take the paper and attend the Grange; but for the fellow who knows all about farming it would be folly to spend time or money in that way. To show how Institutes have waked them up elsewhere we recall a report that seemed to us upon good authority, where Gov. Hoard had compared returns from two neighboring townships, in one of which Institutes had been held with large attendance and deep interest for three or four years, while no interest was taken in the other. The assessor's books showed that for a term of years their net products had been of about the same market value, but that the Institute township now took in double the coin that the other did. That was an object-lesson worth learning. Several of the five must have been waked up there. FRANK S. CHAPIN, Tulare.

THE BOW-WOWS.—The bench show of the California Kennel Clubs in progress in the Wigwam, in this city, as we go to press. The building is closely filled with the exhibits, which include nearly all known kinds of blooded dogs, some specimens being among the finest of their class. The popular appreciation of the show seems to be ample, and the show bids fair to be a success in every way.

FLORIST AND GARDENER.

Hints for the Garden.

EDITORS PRESS:—An excellent contrivance for protecting small seedlings when first placed in the borders, or well-grown but weakish perennials, early in the season, from slugs, is the dome-shaped wire cover used in the country for excluding flies from butter, meat, cheese, etc. This article is to be bad of several sizes, from five to 12 or 15 inches in diameter, and at a cost, where purchased by the dozen and of assorted sizes, of from eight to ten cents each. The cover has a thin edge of tin, which is easily pressed down into the soft ground, thus insuring the complete exclusion of the enemy, while the little knot at the top enables one to quickly raise, move or remove the article when desirable.

It seems almost an impossibility to start plants in the open ground, as they are likely to be devoured as soon as they appear above the surface; but with the use of the cover, the protection is perfect, and the seedlings may not only show themselves, but may remain quietly in place, especially in the case of perennials, until of quite good size and the heat has driven the slimy creature we dread to his summer quarters. Under a 12-inch cover, a hundred seeds can be germinated, and there stay until three or four inches in height; and the plants so grown will be greatly stronger than those started beneath glass—in fact, will be ready, when set separately in the border, to continue their upward and lateral growth.

Another garden convenience is the two-pointed tack such as is employed for fastening matting to the floor. I recommended the use of this tack, some eight or ten years since, for attaching vines to posts, close fences and weather-boarding, and my opinion of it to-day is precisely what it was when I first called attention to it. For the climatic, the ivy, ivy-leaved geranium, rose when young, the manettia vine, the Ampelopsis vetches, or Boston ivy, and other climbers, it is just the article needed. The use of this little staple saves much time, and the work done with it is neat, clean and inconspicuous, quite unnoticeable in fact, even in cases where the leaves of the plant supported but partially cover the upholding fence or weather-boarding. The tack is to be had of several sizes and at a price low enough for its use by all. B. F. L. Santa Clara, April 27, 1891.

Blossom Time.

EDITORS PRESS:—From the bills west of Petaluma, the writer has received, April 24th, larkspurs, iris, large yellow mimulus, several painted cups, several members of the rose family, columbines, and a lot of composite plants, all lacking in completeness; also a Solomon's seal.

From Dillon's beach, near Bodega, came canary grass, *Collinsia bicolor* and *C. uniflora*, *Claytonia Siberica*, thrift (*Armeria vulgaris*) *Phacelia leucostachya*, lupines, *Cammassia esculenta* and *Viola canina*.

From the Santa Lucia mountains, opposite Gonzales, came *Fritillaria lanceolata*, *Vicia Americana*, *Tellima affinis*, *Astragalus Coulteri*, a rattle weed, a white flowered oenothera, half a dozen clovers and *Brodiaea ixioideis*.

A little pearlwort (*Alsenella occidentalis*, *Pickeringia montana*, *Thermopsis Californica* and a *Dendromecon* were noted near San Juan.

Near the Cholones, a pretty malvaceous plant resembling a *modiola* was found April 18th. *Astragalus nigrescens*, *Ellisia chrysanthemifolia* and more gillias were noted.

The season has so far advanced that nearly all the plants with common names have blossomed, even down to poison oak. Some of the summer-flowering bulbous plants are in bud, and in many localities they are showing the effects of alternation of dry and wet and of warm and cold weather. Of this, more later.

A frost on the 25th did harm to potatoes in the Salinas valley, and some even fear injury to blossoming barley. A. L. LIANCE, Gonzales.

Gopher Traps.

No doubt our readers have noticed the attractive advertisements in our columns of the "suloide" and "deadlock" gopher and mole traps by Ira F. White & Son of Pomona, Cal. We have heard that these traps have been found very satisfactory and effective by our readers. The "suloide" took the highest award at the late horticultural fair in Los Angeles. David C. Cook, owner of the great Pirn ranch in Ventura county after testing the "suloide" writes: "It is a good trap surely; send me one gross by express." He keeps one man trapping all the time. Of the "deadlock" trap, John F. Cahill of San Miguel writes: "I have given the trap a thorough trial, and it is indeed the best I have seen. I had three traps of another make, and they snap and let the gopher go. I only caught five gophers with the three traps, but with your single 'deadlock' I caught 12 gophers and never missed one." No doubt this experience will lead others to try these traps which are advertised in our columns.

List of U. S. Patents for Pacific Coast Inventors.

Reported by Dewey & Co., Pioneer Patent Solicitors for Pacific Coast.

FOR WEEK ENDING APRIL 21, 1891.

450,905.—OPERATING ELEVATOR DOORS—W. N. Anderson, San Rafael, Cal.

450,764.—GOLD SAVING APPARATUS—O. H. Bagley, Astoria, Or.

450,860.—REAPING MACHINE—M. S. Cody, Anacortes, Wash.

450,780.—STEAM ENGINE—M. B. Dodge, S. F.

451,005.—PENHOLDER—P. D. Horton, Oakland, Cal.

450,696.—FAUCET—G. H. Merrick, S. F.

450,773.—REPEATING GUN—W. H. Ostrander, Merced, Cal.

450,873.—SHOW TABLE, TOILET STAND AND BUREAU—M. Rosenbaum, Tacoma, Wash.

450,894.—BIER—Sanders & Rafferty, Reno, Nev.

451,007.—JOURNAL BOX—J. T. Smith, S. F.

451,008.—PACKING—J. T. Smith, S. F.

450,878.—SEWER MAN HOLE—Frank Walker, Los Angeles, Cal.

450,956.—SAFE—P. Wilhelm, Portland, Or.

450,858.—BROOM CRATE AND DISPLAY STAND—Frank Zan, S. F.

450,859.—SHIELD FOR BROOMS—Frank Zan, S. F.

The following brief list, by telegraph, for April 21 will appear more complete upon receipt of mail advices:

California—Delbert E. Barton, S. F., cultivator attachment; Delbert E. Barton, S. F., cultivator; Delbert E. Barton, S. F., cultivator clamp; Delbert E. Barton, Los Angeles, assignor of one-half to P. A. Wagner, S. F., cultivator; John L. Calahan, S. F., pipe; Benjamin F. Carman, S. F., cash-box and tray; Geo. A. Cooper, Alameda, sash-holder; Byron Jennings, San Jose, assignor of one-half to J. Brusie, Oakland, tension and cut-out device for electric railways; Francis H. Keislar, S. F., stone sawmill; Gustav F. W. Schultz, S. F., document file; Henry J. Small and T. W. Heintzman, Sacramento, snow-plow; Frank White, Pomona, snap-book. Oregon—Wm. W. Conder, Tillamook, milk-cooler.

Notes.—Copies of U. S. and Foreign patents furnished by Dewey & Co., in the shortest time possible (by mail or telegraphic order). American and Foreign patents obtained, and general patent business for Pacific Coast inventors transacted with perfect security, at reasonable rates, and in the shortest possible time.

Horse Sale at Oakland Park.

Don't forget Henry Pierce's horse sale, which is to be conducted by Killip & Co. at Oakland Trotting Park, Shell Mound Station, Oakland, at noon on Tuesday, May 5th. Forty-three head will be sold for what they will bring, for no fault, but because Mr. Pierce has too many. The offering of Mr. Pierce, though limited, contains some choicely bred animals. Especially is this the case with the young stallions, they

The Oriental Gas Engine.

This class of engine, through which power is developed by means of exploding gas in its cylinder with an electric spark, is being applied to so many purposes, and finding such general favor, that a new candidate for honors deserves notice. Mr. M. A. Graham, the inventor and patentee of the "Oriental," has had long experience in this kind of work and is a thoroughly practical machinist. His special claims for superiority in the Oriental is its peculiar sparking device by which absolute certainty of explosion is insured, the durability of all its wearing parts and its perfect steadiness of motion. The engine is neat in design and simple in construction, requires no skilled engineer, and can be operated with gasoline, city gas or natural gas. It is perfectly adapted to any use where a safe and cheap motive-power is required.

The following testimonials culled from a number of the same tenor are submitted. They speak for themselves:

SAN FRANCISCO, April 13, 1891.

M. A. GRAHAM, Prop'r Oriental Gas Engine Works—DEAR SIR: Your 10-horse power, double cylinder gas engine gives me complete satisfaction. It develops from 11 to 12 horse-power, is economical, burns about 750 cubic feet of gas per day of nine hours and 500 cubic feet per day of eight hours. The engine is well made and works right along, and we have not as yet had a hot bearing. My boy oils and starts it up in three minutes, and it never misses the first explosion. I had a great deal of trouble with gas engines before I got yours, and now I am of the opinion (having used gas engines for the last 15 years) that the Oriental is equal to the Otto in power and steadiness, much more simple in construction, will stand rough usage better, and consumes 60 per cent less gas. Will willingly show your friends the points wherein the Oriental excels all other gas engines I have seen in the United States or Europe.

Yours respectfully, GEO. HOUSTON, Architect and Builder, 23 and 30 Haight St., S. F.

SAN FRANCISCO, April 15, 1891.

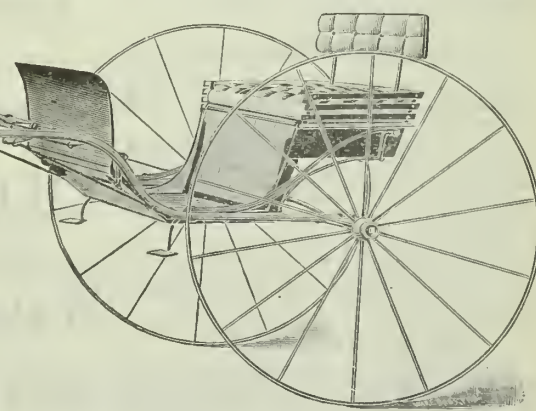
MR. M. A. GRAHAM—DEAR SIR: Your letter of the 12th inst. is received and contents noted. In reply to your inquiry about the six-horse power Oriental gas engine you made us, would say it is giving perfect satisfaction. It is fully six-horse power as represented, and gives more satisfaction than the electric motor power and at one-half the cost.

Yours truly, J. H. Wilson, Supt for J. C. Johnson & Co., Horse Collar and Pad Factory, 400 Market St., S. F.

See illustrated advertisement on another page, and send for catalogue to M. A. Graham, Corner Beale and Mission Sts., S. F., Cal.

A New Principle in Road Carts.

A late improvement in road carts recently patented is shown in the Victoria, the body of which is hung on two steel oscillating rock rods, one suspended from long flexible springs at the rear, and the other from metal boxes on the shafts in front. Having no rigid connections it is claimed the body remains perfectly steady



and does not receive the unpleasant motion of the horse and gear. As set forth above, the Victoria certainly presents a stylish and attractive appearance with its slat seat and phaeton body, while the upholstering and double bent shafts convey an impression of comfort and ease of access.

This new candidate for public favor is introduced by Frank Brothers, 33 and 35 Main street, San Francisco, who have brought out several other leading styles of vehicles.

BEFORE YOU CLEAN HOUSE.—Long before the calendar says it is time to begin house-cleaning, says the *Ladies' Home Journal*, you should look over the magazines, papers, disabled furniture, discarded garments and household ornaments which even 12 months accumulate so wonderfully. Be brave, and do not save an indiscriminate mass of articles against the possible needs of the seventh year of which we hear so much. Give away the best of the old garments and sell the remainder to the junk-man. The magazines and papers which you do not intend to have bound or to utilize in your scrap-book, will be eagerly read in some hospital or other institution. Even the furniture and ornaments will greatly brighten the dreary surroundings of some poor family. Have the courage of your convictions in dealing with the contents of trunks and boxes. Dispense with non-essentials and systematize the remainder, and your reward will be a delightful sense of space and a feeling of almost physical relief.

A SITE has been selected for the new Indian school at Perris, San Diego county. It is to be located on an 80-acre tract 4½ miles north of the town, and work will probably be commenced within 30 days. The sum of \$25,000 is to be expended, and the school will probably be opened in October with about 100 pupils.



## Breeders' Directory.

Six lines or less in this Directory at 50c per line per month.

### HORSES AND CATTLE.

P. H. MURPHY, Perkins, Sac. Co., Cal., Importer and Breeder of Shorthorn Cattle and Poland China Hogs.

M. D. HOPKINS, Petaluma, importer and dealer in Eastern registered Shorthorns, Red Polled Cattle, Holsteins, Devons and Shropshire Sheep.

PETER Saxe & SON, Lick House, San Francisco, Cal. Importers and Breeders, for past 21 years, of every variety of Cattle, Horses, Sheep and Hogs.

PERRIN STANTON, Sacramento, Cal., Importer and Breeder of Registered A. J. C. C. Jersey Cattle of the Best Strains. Stock for sale.

J. R. ROSE, Lakeville, Sonoma Co., Cal., breeder of Thoroughbred Devons, Roadsters and Draft Horses.

P. PETERSEN, Sites, Colusa Co., Importer & Breeder of registered Shorthorn Cattle. Young bulls for sale.

WILD FLOWER STOCK FARM, Fresno Co. A. Heilbron & Bro., Props., S. C. Breeders of thoroughbred strains and Cruikshank Shorthorns; also Registered Herefords; a fine lot of young bulls in each herd for sale.

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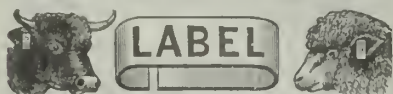
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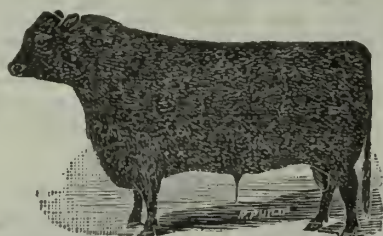


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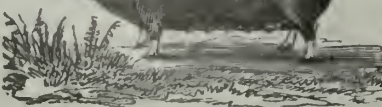
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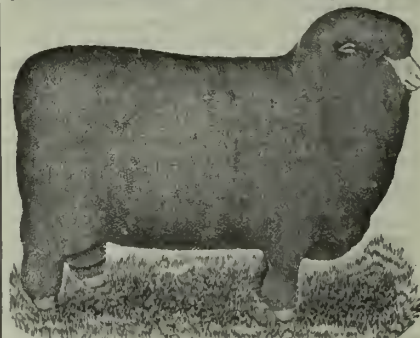
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Mixes instantly with water. Prevents the fly from striking. In a two-pound  
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PATENT  
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all the calf can eat. As soon as the calf feels the nipple  
it tastes the milk and is glad to suck; as it gets older it  
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It takes less time and trouble, because they are easier  
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can run in the same pasture with the cow, never have to  
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MESSRS. H. H. MOORE & SONS, Stockton, Cal.—GENTLE-  
MEN: In answer to your inquiry, would state that I used  
your H. H. H. Liniment on my Holland prize-winning  
cow, "Lena Menlo," for a wrenched shoulder, and it re-  
lieved her very much. She calved the next day, and while  
still suffering from the sprain gave the largest authen-  
ticated quantity of milk ever given on this coast (104  
gallons per day), showing conclusively the great relief  
received from your remedy. I consider it a necessity in  
my stables, and when away from home feel perfectly  
safe, as inexperienced men can do no harm with it, as  
they can with the more powerful blisters. Respectfully  
yours,  
BREEDER OF REGISTERED HELENITES AND BERKSHIRES.  
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Made of the very best material.  
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Write for Prices.  
TRUMAN, HOOKER & CO.,  
SAN FRANCISCO.



## S. H. MARKET REPORT

## Market Review.

## DOMESTIC PRODUCE, ETC.

SAN FRANCISCO, April 29, 1891.

General trade in farm products the past week has been fairly active. The weather has been all that can be desired for crops and bounteous, a harvest of all kinds of products is among the certainties. The money market is reported easy. At the East and also abroad wheat values have tended down. The following is to-day's cablegram:

LIVERPOOL, April 29.—Wheat—Slow. California spot lots, 8s 3/4d; off coast, 45s; just shipped, 45s; nearly due, 45s; cargoes off coast, quiet but steady; on passage, market seems firmer; Mark Lane wheat, slow.

## Foreign Grain Review.

LONDON, April 27.—Mark Lane Express, says: English wheats are quiet, but firm at an average price of 39s, the highest since 1883. Foreign steady. All other grains show an advance. Supplies continue to decrease. At to-day's market wheats were firm. English is held at 40s; best California from 46s to 47s.

## Liverpool Wheat Market.

The following are the closing prices paid for wheat options per cwt. for the past week:

	April	May	June	July	Aug.	Sept.
Thursday	88 1/2	88 1/2	88 1/2	88 1/2	88 1/2	88 1/2
Friday	88 1/2	88 1/2	88 1/2	88 1/2	88 1/2	88 1/2
Saturday	88 1/2	88 1/2	88 1/2	88 1/2	88 1/2	88 1/2
Monday	88 1/2	88 1/2	88 1/2	88 1/2	88 1/2	88 1/2
Tuesday	88 1/2	88 1/2	88 1/2	88 1/2	88 1/2	88 1/2

The following are the prices for California cargoes for off coast, nearly due and prompt shipments for the past week:

	C. O.	P. S.	N. D.	Market.
Thursday	46 1/2	45 1/2	45 1/2	Irregular.
Friday	46 1/2	45 1/2	45 1/2	Firmer.
Saturday	46 1/2	45 1/2	45 1/2	Quiet.
Monday	46 1/2	45 1/2	45 1/2	Kasier.
Tuesday	46 1/2	45 1/2	45 1/2	Weak and lower.

## Eastern Grain Markets.

The following shows the closing prices of wheat at New York for the past week, per cental:

Day	April	May	June	July	Aug.	Sept.
Thursday	20 3/4	19 3/4	19 3/4	18 3/4	18 3/4	18 3/4
Friday	20 3/4	19 3/4	19 3/4	18 3/4	18 3/4	18 3/4
Saturday	20 3/4	19 3/4	19 3/4	18 3/4	18 3/4	18 3/4
Monday	19 3/4	19 3/4	19 3/4	18 3/4	18 3/4	18 3/4
Tuesday	19 3/4	19 3/4	19 3/4	18 3/4	18 3/4	18 3/4

The closing prices for wheat have been as follows at Chicago for the past week, per cental:

Day	May	June	July	Aug.
Thursday	18 3/4	18 3/4	18 3/4	18 3/4
Friday	18 3/4	18 3/4	18 3/4	18 3/4
Saturday	18 3/4	18 3/4	18 3/4	18 3/4
Monday	18 3/4	18 3/4	18 3/4	18 3/4
Tuesday	18 3/4	18 3/4	18 3/4	18 3/4

NEW YORK, April 29.—Wheat—\$1.17 1/2 for May, \$1.14 1/2 for June, \$1.13 for July, \$1.08 1/2 for August, \$1.07 1/2 for September, and \$1.08 1/2 for December.

CHICAGO, April 29.—Wheat—\$1.07 1/2 for May and \$1.05 for July.

## Visible Supply of Grain.

NEW YORK, April 27.—The visible supply of grain Saturday, April 25th, as compiled by the New York Produce Exchange, is as follows: Wheat, 22,343,000 bushels, an increase of 157,000 bushels; corn, 2,464,000 bushels, an increase of 226,000; oats, 2,622,000 bushels, an increase of 114,000; barley, 767,000 bushels, a decrease of 144,000.

## Eastern Wool Markets.

NEW YORK, April 24.—Bradstreet's will say: The movement in wool has shown increased activity during the week, and sales of both domestic and foreign grades were larger. The decline in values has been temporarily checked. American buyers at the London sales are reported to have secured 5000 bales. The arrivals of Australian wools are large and the present supply is in excess of the demand. The first lots from the new clip of Territories, Texas and California wools are due to arrive in a few days. It is said that the prices paid are higher than those at the beginning of last season. Ohio and Michigan wools are in better demand. Several large sales are reported to have been made at prices a little under previous quotations. Territories are running well considering the general condition of the market.

## Miscellaneous.

NEW YORK, April 27.—Hopsales to brewers are reported very fair. Reputable dealers are quietly saying that prices are more likely to advance than to decline in the immediate future. The general market seems gaining a better tone, though the export interest is exceedingly tame.

The Commercial Bulletin says a sale is reported of a carload of choice Fresno loose Muscatel raisins, packed in an artistic style, at \$1.35 per box.

NEW YORK, April 24.—Sales of fair quality California prunes, 40s and 50s are reported as low as 10 1/2c. A visitor from the coast is said to have offered Oregon prunes to arrive at even a lower price.

## Local Markets.

	Buyer	Seller	Buyer	Seller
Thursday	100	108	109	118
Friday	100	108	109	118
Saturday	100	108	109	118
Monday	100	108	109	118
Tuesday	100	108	109	118

\*After July.

	Buyer	Seller	Buyer	Seller
Thursday	100	108	109	118
Friday	100	108	109	118
Saturday	100	108	109	118
Monday	100	108	109	118
Tuesday	100	108	109	118

\*After August.

BAGS—The market is reported fairly steady at 7 1/2c for Calcutta. It is said that orders for prison bags will be received on and after May 1st.

BARLEY—The market has held strong, although buyers are trying to beat prices down. In futures,

trading has been only fair. The following are to-day's sales on Call:

Morning Session: Seller 1891—100 tons, \$1.11 1/2; 100, \$1.11 1/2; 100, \$1.11 1/2 cwt. Afternoon Session: Seller 1891—100 tons, \$1.11 1/2. Buyer season—100 tons, \$1.49. Buyer May—100 tons, \$1.48 1/2 cwt.

BUTTER—Heavy receipts and warmer weather are having an unfavorable effect. Many consignments are forced to be placed at the best obtainable figures. Packing is still in order.

CHEESE—Accumulating stocks have a depressing effect on the market. Quotations are lower and weak at the decline.

EGGS—The market has been shading under heavy receipts from the East and the warmer weather forcing sales.

FLOUR—The market is steady. There is no selling pressure.

WHEAT—As usual at about harvest time, the wheat and ship rings bear prices through the Call Board systems at the East and on this coast. The stock at the East, in California and other Pacific coast States were never before so small, yet in the face of this to get new crop wheat at lower prices the bears and buyers are depressing the markets at home and abroad. The vessels in port here when loaded will take about all the surplus wheat in this State and new wheat will not be available before July. In futures trading on Call has been active at declining prices. The following are to-days reported sales:

Morning Session: Buyer 1891—400 tons, \$1.72 1/2; 200, \$1.71 1/2; 200, \$1.70 1/2. Buyer season—100 tons, \$1.69 1/2. Seller 1891—600 tons, \$1.57; 400, \$1.56. Buyer 1891, after August 1st—200 tons, \$1.62 1/2; 200, \$1.62 1/2; 100, \$1.62 1/2; 500, \$1.62. August-September—100 tons, \$1.59 1/2 cwt. Afternoon Session: Buyer 1891—100 tons, \$1.70 1/2; 400, \$1.70; 100, \$1.71. Buyer season—100 tons, \$1.69. Seller 1891—100 tons, \$1.56; 300, \$1.55 1/2; 100, \$1.55 1/2; 200, \$1.55; 700, \$1.55 1/2; 100, \$1.56 1/2. Buyer 1891, after August 1st—300 tons, \$1.62; 800, \$1.61 1/2; 100, \$1.61 1/2; 100, \$1.61 1/2; 300, \$1.61 1/2; 100, \$1.62; 100, \$1.62 1/2; 100, \$1.62 1/2; 100, \$1.62 1/2 cwt.

## Market Information.

## Produce Receipts.

Receipts of produce at this port for the week ending April 28th, were as follows:

Flour, qr. sks.	191,755	Middlings, sks.	3,865
Wheat, cts.	236,400	Alfalfa, "	"
Barley, "	23,887	Chicory, bbls.	240
Rye, "	2,167	Broomcorn bbls.	"
Oats, "	2,556	Hops, bbls.	139
Corn, "	672	Wool, "	4,837
*Butter, "	1,750	Hay, tons.	1,626
do bxs	831	Straw, "	114
do bbls	"	Wine, gals.	260,870
do kegs	16	Brandy, "	16,140
do tubs	36	Raisins, bxs.	500
do 1/2 bxs	396	Honey, cs.	"
†Cheese, cts.	1,078	Walnuts, sks.	22
do bxs	180	Flaxseed, "	"
Eggs, doz	73,203	Mustard, "	235
do " Eastern	95,250	Almonds, "	"
Beans, cts	4,871	Peanuts, "	96
Potatoes, sks	27,551	Popcorn, "	22
Onions, "	850	Beet sugar, bbls.	"
Bran, "	9,363	do do sks.	"
Buckwheat, "	"	"	"
*Overland, cts.	†Overland, cts.	"	"

## Cereals.

After such an upheaval in the wheat market as was witnessed the first three weeks in April, it is but natural that prices should ease off. The high prices abroad must have brought in sellers from all supply countries, besides resellers in the demand markets. Under their large offerings, buyers soon had their temporary wants met. The writer still maintains that the statistical position of wheat the world over warrants good prices for at least a year to come. In saying this, it must not be understood that at times there will be periods of depression and low prices, but these will be brought about either by large offerings of sellers or else by bear combination of buyers working on Call in futures. The forefront of every season both in America and Europe, is characterized by heavy selling from farmers, but after this is cared for then better prices usually obtains provided the situation, as it now does, warrants.

The cereal crop prospects in this State and up north promise a very large output. In this State, that of wheat will probably be 25 per cent greater than our largest crop, while that of barley will equal the largest ever before harvested. The crop will not only be large, but the grain will be of a better grade—plumper, cleaner and brighter. In Oregon and Washington the crop promises to be larger than that of 1890. The yield to the acre will probably not average so large, but the increased acreage East of the Cascade mountains will make this more than good.

The stock of wheat in this State, Oregon and Washington is very small. The heavy shipping now going on warrants the assertion that the supply of old on this coast will be nearly exhausted by July 1st.

Barley has held strong throughout the week under a steady demand and moderate supplies. Increased outdoor work in the agricultural sections has created a very large demand for the cereal. Barley feeding in this State is estimated to have increased the past three years fully 40 per cent, and this too, with fewer work horses, owing to the building of cable and electric street cars in the large cities. The planting of vineyards and orchards in the country causes a larger number of horses to be used by farmers than ever before.

Within the past three days quite a fleet of deep sea vessels arrived in port. As they were chartered for wheat loading previous to arrival, they will receive quick dispatch, which will lower the stock of wheat very greatly.

We give wheat quotations in New York and Chicago in cents (100 lbs), which make all quotations for the same quantity. The quotations are as follows: English quarters are for 500 lbs, Liverpool futures for 100 lbs, Chicago, New York and San Francisco for 100 lbs.

Oats have held to steady prices throughout the week under light receipts and lessening stocks. Crop advances are uniformly good.

Corn is stiff, with an advance for white. As a rule, the latter is preferred for shipment to Mexico and Central America. The crop in this State, it is claimed, will be larger this year than it was in 1890. Rye is unchanged.

## Feedstuff.

Ground feed is in good demand for the season. Higher quotations are reported for everything except oil-cake meal. A freer demand for ground feed in the lumbering camps on Puget Sound causes considerable that would come here to be diverted to that part of Washington.

Hay maintains the same strong tone heretofore reported. Receipts are not up to requirements. New hay will soon be in market from the more favored localities down south. In the central and northern valleys the late cool weather kept the crop back, but with a continuance of present warm weather harvesting will soon be in order.

## Live-stock.

Bullocks, mutton sheep and hogs are easier under liberal offerings. Many of the selling offers are from persons who will change their stock ranges. The more abundant supply of vegetables and the fruit season near at hand cause slaughterers to buy sparingly. Then the hot weather which usually obtains in June, July and August is against a free consumption. In cows and horses we are not able to learn of anything new to report.

The market for dressed cattle is quoted as follows to obtain the price on foot, take off from the price for stall-fed one-third to one-half, according to the nature of the feed and time fed; and for grass-fed take off the price from 40 to 60 per cent:

HOGS—On foot, light grain fed, 5 1/2c @ 5 3/4c lb; dressed, —@—c lb; heavy, 4 1/2c @ 5 1/4c lb; dressed, —@—c lb. Stock hogs, 4 1/4c @ 5 lb. BEEF—Stall fed, 6 1/2c @ 7 lb; grass fed, extra, 6 1/2c @ 7 lb; first quality, 5 1/2c @ 6 lb; second quality 5 1/4c @ 6 lb; third quality, 4 1/4c @ 5 lb; bulls and thin cows, 2 1/2c @ 3 lb.

VEAL—Small, 6 @ 7 1/2c lb; large, 5 @ 6c. MUTTON—Wethers, 7 1/2c @ 8c lb; ewes, 7 @ 7 1/2c lb; spring lamb, 8 @ 10c lb.

## Fruits.

The first gooseberries of the season put in an appearance on April 24. They were sent in by A. Murphy of San Leandro, for which he received from 8c to 12 1/2c per pound.

The first cherries of the season came to hand yesterday (Tuesday) 24 boxes from the Sacramento river and three boxes from Vacaville. They sold at \$2 to \$3.50 per box. With clear, warm weather the market will be soon supplied. The cool weather has kept all kinds of fruits backward.

Raspberries and gooseberries are coming in slowly. Strawberries are in liberal receipt, causing prices to shade off. The quality is improving.

Tree fruit crops promise a large outturn of all kinds.

Lemons and limes went into more general distribution the past week, as did oranges. Receipts of the latter are heavy. Choice oranges are wanted, but the market is overstocked with corks, thick-skinned and trashy stock. Trucksters and cheap dealers buy the latter at their own prices.

In dried fruits and raisins there is nothing new to report.

## Vegetables.

Garden truck is in good supply, yet prices are well maintained for the time of the year. Prices for peas, string beans, summer squash, etc., go down slowly. Rhubarb and asparagus appear to be at bottom. New cabbages are coming in more freely.

Australian and choice old onions command from 3 1/2c to 4 1/2c per lb. New onions are in freer receipt, but owing to their poor keeping quality they are quickly placed, which keeps the price down.

There is a good Eastern demand for the more matured new potatoes, which keeps the market fairly well cleaned up, particularly of the larger and more choice varieties. Old are being neglected and under liberal receipts, prices are shading.

White beans are firm, but colored are barely steady. A dealer reports that last year's crop of Lima beans in Ventura county consisted of about 1200 carloads, of which about 200 cars remain in warehouse unsold. These are being moved steadily and will be out of the way long before the new crop comes in. The market there is \$2.75 @ 3.15. Many of the poorest lots are being cleaned by a machine just invented, which takes out all dirt, stems and chaff, and which undoubtedly will be generally used hereafter. The acreage to be planted in Limas this year will be considerably increased and the soil is in the best of condition. A crop of 1500 to 1600 carloads is expected.

## Miscellaneous.

From reliable advices up to April 29th the following summary of tonnage movement is compiled:

	1891.	1890.
On the way to		
San Francisco	264,529	184,284
San Diego	16,507	12,959
San Pedro	6,807	10,729
Oregon	22,973	28,776
Puget Sound	35,005	18,509

Totals.....344,921 255,257

	1891.	1890.
In port at		
San Francisco, disengaged	7,882	18,950
" engaged for wheat	61,286	54,471
San Diego	5,871	"
San Pedro	1,909	"
Columbia River	16,158	"
Puget Sound	"	"

Totals.....93,106 80,548

To get the carrying capacity, add 65 per cent to the registered tons as given above.

From July 1, 1890, to April 17, 1891, the following are the exports from this port:

	1891.	1890.
Wheat, cts.	11,278,164	11,299,484
Flour, bbls	977,636	910,851
Barley	216,264	919,125

Old poultry, and poultry in poor condition or of small size are hard to place. Large sized well conditioned and young poultry are wanted at higher prices.

Hops are reported scarce but brewers and buyers operate sparingly. For new crop, contracts are being made at from 15c to 20c a pound according to locality.

In wool there is nothing new to report. Present free receipts give a fair assortment for buyers, who are disposed to take advantage of it by making

selections for shipping. The grade taken as a whole is said to be good.

The honey crop will be large and of good quality. Buyers are disposed to bid down. The crop at the East it is claimed will be a full average.

For ham and bacon there is a good demand at strengthening prices.

## Domestic Produce.

Extra choice in good packages fetch an advance on top quotations, while very poor grades sell less than the low quotations. WEDNESDAY, April 29, 1891.

BEANS AND PEAS.	NUTS—JOBBER.
Bayo, cts.	Walnuts, Cal. D.
Butter	do Ohio
Peas	do paper shell
Red	do Ohili
Pink	Almonds, bd sh.
Small White	Softshell
Lima	Paper shell
Flid Peas, bk eye	Brazil
do green	Pecans small
do Eastern do	do large
do Niles	Peanuts
Split	Hickory
BROOM CORN	Chestnuts
Chico to Extra 100	Pine
Fair to Good	
Poor	

California

German

DAIRY PRODUCE, ETC.

Butter

Cal. Poor to fair

do good to choice

do Giltedged

do Creamery rolls

CHICORY

Cal. choice mild

do fair to good

do Gilt edged

Young America

N. York Cream

Western

Cal. ranch, doz.

do do selected

do store

Eastern

FEED.

Brass, ton

Feedmeal

Grd Barley

Middlings

Oil Cake Meal

Manhattan Feed

Compressed

Wheat, per ton

do choice

Wheat and Oats

Wild Oats



## The Rate of Tare on Baled Hops.

The People of the State of California, represented in Senate and Assembly, do enact as follows:

SECTION 1. There shall be allowed on baled hops a tare at the rate of two per centum of the weight of the bale for the cloth and other material used in baling; that is, the tare shall be at the rate of two pounds per hundred on the weight of the bale.

Sec. 2. This Act shall take effect and be in force from and after its passage.

**BERKSHIRE SALES.**—Phil. M. Springer, Secretary American Berkshire Association, Springfield, Ill., sends the following transfers of recorded Berkshires: Hard Byron 22001; An-Smith, Redwood City, Cal. to J. E. Lucas, San Rafael, Cal.; Redwood Gem, 24430, Redwood Countess 24433 and Governor 25900, Andrew Smith to Carlos Urrea, Mexico; Model Boy 25867 and Camilla II 25914, Andrew Smith to C. O. Pendleton, Red Bluff, Cal.; Santiago Duke 25947, Andrew Smith to J. E. Pleasants, Santa Ana, Cal.; Dada 25884, J. E. Lucas, San Rafael, Cal. to H. Emerie, San Pablo, Cal.; Wanda 25885, J. E. Lucas to L. Hayden, Black Point, Cal.; Miss Rome Park 25948 and Hubbard's Index 25949, F. A. Hubbard, Rome, Kansas, to Harry Fulton, Flagstaff, Arizona; Mountaineer 25950, U. H. Gentry, Sedalia, Mo. to Harry Fulton; Daley B. 25962, J. E. Pleasants, Santa Ana, Cal. to A. J. Blee, Santa Ana, Cal.; Prestigo 25973, J. E. Pleasants to J. W. Blee, Santa Ana, Cal.

The Bricklayers' Union of San Francisco has declined to boycott iron from the non-union foundries of San Francisco.

J. DE BARTH SHORE, San Gabriel, is said to be grubbing up 50 acres of vine on his place, and will plant the land to figs.

BOLINAS, Marin Co., has a coal vein and iron ore. The latest development is natural gas, near Duxberry reef.

## Housewives, Attention!

Two new first-class Sewing Machines for sale cheap. Will be sent direct from warehouses if desired. Address, H. F. D., Box 2517, San Francisco, Cal.

## New Books for Horticulturists.

**A New Book on Propagation of Plants.**—THE NURSERY BOOK, by Prof. L. H. Bailey, Editor. The American Garden, has been prepared with the utmost pains. The book is absolutely devoid of theory and speculation. It has nothing to do with plant physiology, nor with any abstruse reasons of plant growth. It simply tells plainly and briefly what every one who owns a seed, makes a cutting, sets a graft, or crosses a flower wants to know. It is entirely new and original in method and matter. The cuts number almost 100, and are made especially for it, direct from nature. The book treats of all kinds of cultivated plants, fruits, vegetables, greenhouse plants, hardy herbs, ornamental trees and shrubs, and forest trees. A "nursery list" is the great feature of the book. It is an alphabetical list of over 3000 plants, with a short statement with each, telling which of the operations described in the first five chapters are employed in propagating them. About 300 pages, 16mo. Price, in library style, cloth, wide margins, \$1; pocket style, paper, narrow margins, ..... 50 cts.

**The New Potato Culture,** by Elbert S. Carman. Editor of the Rural New Yorker. For the past 15 years the author has given a part of his time to potato experimentation, in the hopes that he might throw some additional light upon the various questions involved in the central problem, "How to increase the yield without proportionately increasing the cost of production." The object of Mr. Carman's book is to show all who raise potatoes, whether for home use solely or for market as well, that the yield may be increased three-fold without a corresponding increase in the cost; to show that the little garden patch, of a fortieth of an acre perhaps, may just as well yield ten bushels as three bushels; to induce farmers and gardeners to experiment with fertilizers, not only as to kind, but as to the constituents and their most effective proportions, but as to the most economical quantity to use. Price, cloth, 75 cts.; paper, ..... 40 cts.

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## PACIFIC COAST WEATHER FOR THE WEEK.

[Furnished for publication in this paper by officer in charge of branch Signal office, Division of the Pacific.]

DATE	Olympia.	Portland.	Eureka.	Red Bluff.	Sacramento.	S. Francisco.	Fresno.	Keeler.	Los Angeles.	San Diego.
April 22-28.	Rain. Temp. Wind. Weather.	Rain. Temp. Wind. Weather.	Rain. Temp. Wind. Weather.	Rain. Temp. Wind. Weather.	Rain. Temp. Wind. Weather.	Rain. Temp. Wind. Weather.	Rain. Temp. Wind. Weather.	Rain. Temp. Wind. Weather.	Rain. Temp. Wind. Weather.	Rain. Temp. Wind. Weather.
W.	1.08 52 S Cy.	1.28 54 SW Rn.	.52 58 SW Cy.	.00 76 S Cl.	.00 72 SW Cl.	.00 57 W Cl.	.00 80 NW Cl.	.00 74 SW Cl.	.00 68 W Cl.	.00 64 NW Cl.
T.	.12 52 NE Cy.	.16 50 SW Cy.	.24 54 SW Cy.	.00 70 S P C.	.00 62 S P C.	.00 56 SW Cy.	.00 74 NW Cy.	.00 72 S Cy.	.00 66 W P C.	.00 60 NW Cy.
F.	.58 46 S P C.	.20 48 S Cy.	.04 ..... Cy.	.00 58 S P C.	.00 50 SW P C.	.00 52 W Cl.	.00 64 NW Cl.	.00 63 E Cl.	.00 62 W Cl.	.00 58 SW Cy.
S.	.02 58 S Cy.	.12 52 S Cy.	.02 60 S Cl.	.00 62 S Cy.	.00 62 SW Cy.	.00 56 W Cy.	.00 68 NW Cy.	.00 66 NW Cy.	.00 64 W Cy.	.00 64 NW P C.
S.	.62 58 S Rn.	.04 62 S Rn.	.00 56 SW Cl.	.00 76 NW Cl.	.00 72 N Cl.	.00 64 W P C.	.00 80 NW Cl.	.00 76 NW P C.	.00 70 W Cl.	.00 70 NW Cl.
M.	.22 54 SW Rn.	.70 54 S Rn.	.06 60 SW Cy.	.00 80 SE Cl.	.00 76 SW Cl.	.00 56 W Cl.	.00 86 N Cl.	.00 74 S Cy.	.00 70 W Cl.	.00 66 NW Cl.
T.	.34 50 W Cy.	.14 54 SW Cy.	..... Cy.	.00 78 S Cl.	.00 70 SW Cl.	.00 58 W P C.	.00 80 NW Cl.	.00 83 W Cy.	.00 64 W Cl.	.00 64 W Cl.
.....	2.98 ..... Cy.	2.52 ..... Cy.	.68 ..... Cy.	.00 ..... Cy.	.00 ..... Cy.	.00 ..... Cy.	.00 ..... Cy.	.00 ..... Cy.	.00 ..... Cy.	.00 ..... Cy.

EXPLANATION. Cl, for clear; Cy, cloudy; Fr, fair; Cm, calm; - indicates too small to measure. Temperature wind and weather at 5 P. M. (Pacific Standard time) with amount of rainfall in the preceding 24 hours. T indicates trace of rainfall. P C, partly cloudy. Rn., rain.

## HAGGIN HORSE SALE!



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## Notices of Recent Patents.

Among the patents recently obtained through Dewey & Co.'s SCIENTIFIC PRESS U. S. and Foreign Patent Agency, the following are worthy of special mention:

**RIDING PAD.**—Wm. C. McFeely, Sacramento. No. 449,860. Dated April 7, 1891. This is a device to take the place of a lady's side-saddle. It can be used with or without a blanket or saddle; and may be used in connection with a gentleman's saddle, thereby enabling a lady rider to use such a saddle and have her limb suitably supported by the pad which occupies a space in front of the saddle when the latter is used. The device is light and contains the necessary elements of safety and at the same time is suitable for the horse's back.

**STUMP-PULLER.**—Wm. B. Morris, Seattle, Wash. No. 449,858. Dated April 7, 1891. Mounted on a sled so as to easily hauled over the ground is a vertical shaft suitably braced, and on this revolve two rope-winding drums of slightly different diameter. One portion of the rope is wound around the larger part of the drum and the other portion around the smaller part from the opposite direction so that when this drum is turned around, the rope unwinding from the small part of the drum will be wound up somewhat faster upon the larger part, and the difference in size of the two drums determines the amount of power which is applied. The bight of the rope passes through a pulley-block, and from the hook on this block a chain extends to the stump that is to be pulled. The gearing is so arranged that a horse may walk around with the lever, or it may be operated reciprocally as desired. The device is light, powerful and effective.

**TRACTION WHEEL.**—Geo. R. Duval, Benicia, assignor to the Benicia Agricultural Works. No. 450,484. Dated April 14, 1891. This invention relates to certain improvements in the construction of metallic wheels of large size such as are employed for traction engines and through which power is applied to propel the engine over the ground and haul loads or agricultural machinery. In the construction of wheels of this class which are intended to support heavy weights, and which often traverse rough and stony roads, it is important to construct the wheel in such a manner as to make it exceedingly rigid and capable of resisting torsional strains and such strains as arise from the swaying of the engine which causes an end motion in the direction of the axis, and also to so construct the wheel-rims as to give them sufficient rigidity to prevent their being bent and indented without making them extraordinarily heavy and unwieldy. Wheels of ten and one half feet in diameter have already been constructed on the plan patented by Mr. Duval.

**CHILD'S FOLDING CARRIAGE.**—Fred. Bornemann, S. F. No. 450,362. Dated April 14, 1891. This invention relates to that class of children's carriages which are adapted to be folded into small compass for easy transportation and to be again expanded for use. The object of this invention is to provide a simple carriage of this class adapted to be readily folded and unfolded, and which, when expanded for use, will be stiff and rigid enough for all purposes, and when folded will occupy but small space, whereby it may be readily carried about.

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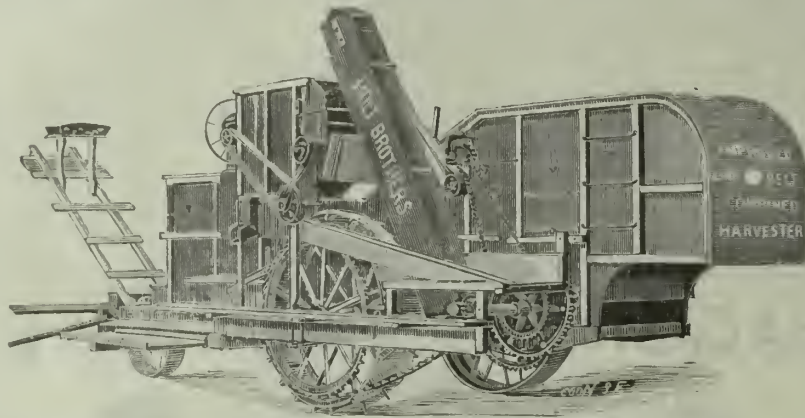
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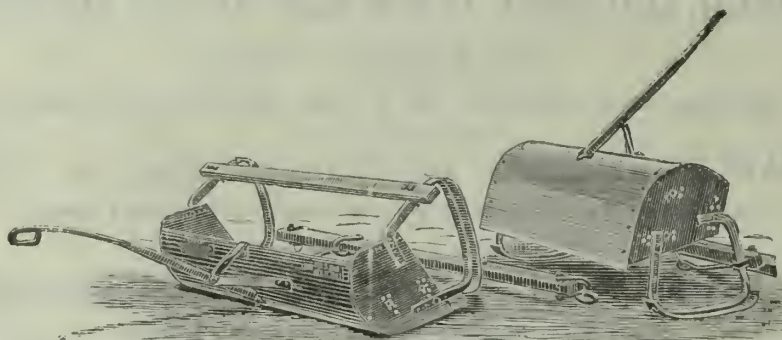
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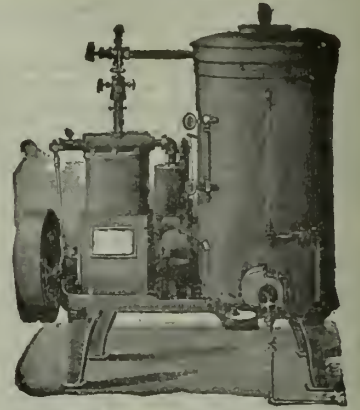


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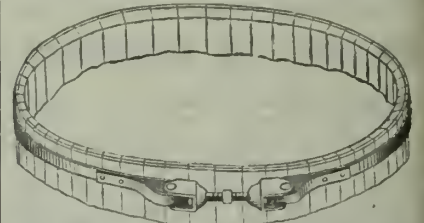
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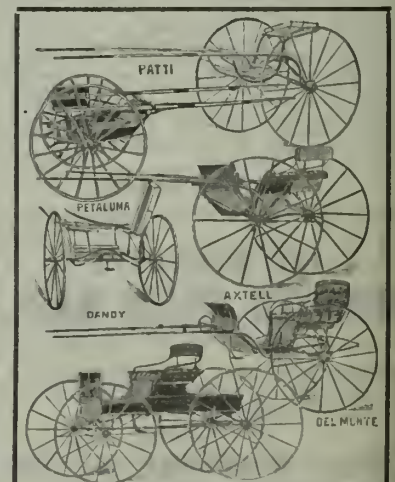


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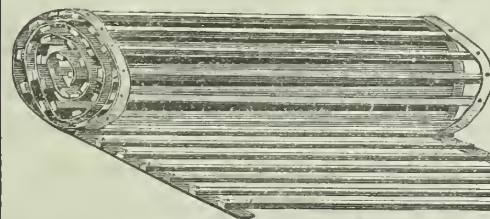
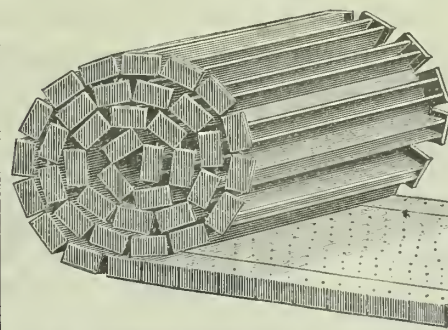
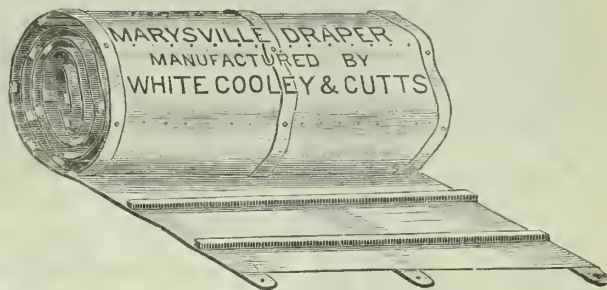


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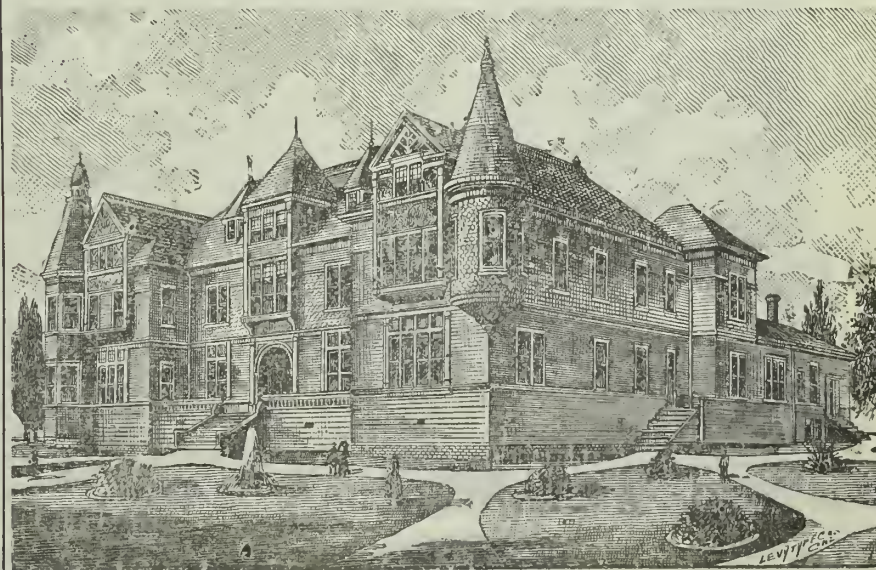
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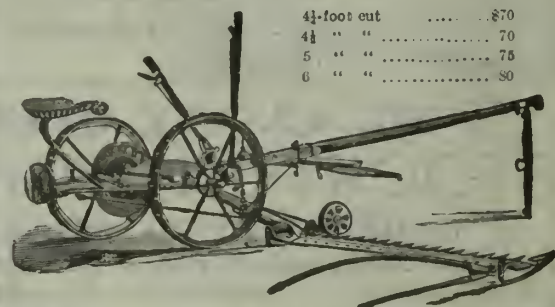
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41-foot cut	.....\$70
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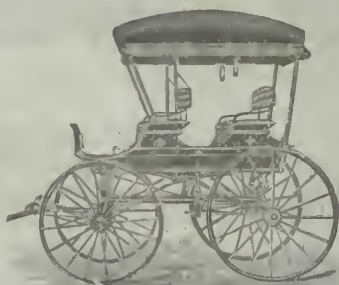
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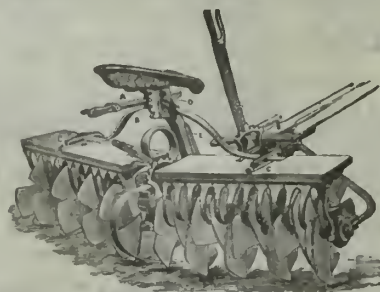
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I'll buy a "Randolph" Header in the morning.

HAS DOUBLE ELEVATOR DRAPERS. It is the Lightest Draft, it has the best Elevator; Double Drapers in the Elevator; it is simple in construction; it is the most Durable; it is GUARANTEED to be the BEST HEADER IN THE WORLD.

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CALIFORNIA  
STATE  
PRESS

# PACIFIC RURAL PRESS

Vol. XLI.—No. 19.
SAN FRANCISCO, SATURDAY, MAY 9, 1891.
{ DEWEY & CO., Publishers,  
Office, 220 Market St.



A CALIFORNIA PEACH—GEORGE'S LATE—AS GROWN IN KERN COUNTY.

## California Peaches

The months are flying and soon the season for the peach, the grandest of California's deciduous tree fruits, will be at hand. We had a marvelous crop last year, and received plenty of money for it. This year the peach has suffered slightly from spring frosts. In some localities there will be a material reduction of crop; but in others, there never was a brighter outlook, so that the crop for the whole State promises well.

The engraving shows how the peach grows on the irrigated lands of Kern county, the engraving being from a photograph of a tree in fruit upon the Park place, about a mile and a quarter southwest of Bakersfield. The growth of the peach in that region of the State, and its early fruiting may be almost incredible to distant readers. The report is made that trees

planted in orchard at one year from the bud bore on an average of 54 lbs. to the tree the first summer after planting; that the second summer in the orchard, the fruit sold for \$240 per acre; that the third summer, when the photograph was taken, the trees were 18 to 20 feet high, and had trunks about six inches in diameter. The trees are irrigated three times a year.

The peach shown in the engraving is George's Late Cling a California variety which originated in Sacramento, and has been quite widely planted in places where late peaches are profitable. It is a large peach of beautiful yellow color striped and splashed with bright red. The flesh is white with deep color at the pit. In the foothills it is reported a heavy and uniform bearer, a good shipper and P. W. Butler of Placer county, gave it as his judgment that at its season of ripening no

peach grown in Placer county yields the grower so much profit. The variety is, however, somewhat subject to mildew in some localities and for other reasons is not so highly regarded.

The peaches in the engraving were about nine inches in circumference, and many of them weighed ten ounces.

## The State Board of Trade.

Mr. E. W. Maslin has assumed charge, as manager, of the California State Board of Trade, the office of which, for the present, is in the Bancroft building, 721 Market street. He desires to call the attention of the horticulturists and farmers to the advantages to be derived from a visit to the rooms of the board. There are displayed the best specimens of the horticultural and agricultural productions of

the State. Comparisons may be made and opinions formed as to the best parts of the State in which to grow the several varieties of fruits and grains.

The Board is in receipt of the Weather-Crop Bulletin issued by the signal service at Sacramento city. They will soon display a fine collection of the minerals of the State, which will include samples of the soils of the various counties which contribute to the support of the Board. In short they intend, so far as they can, to make the rooms a "bureau of information for all the industrial pursuits of the State."

Mr. Maslin asks any person who has anything which may contribute to the knowledge of the resources of the State, i. e., a box of soil, a piece of ore, an example of tree or vine growth, a specimen of fruit, etc., to send the same to our rooms. The cost of carriage will be paid by the Board.



## CORRESPONDENCE.

Correspondents are alone responsible for their opinions.

## Napa County Notes.

EDITORS PRESS:—The advancing season continues to brighten the prospects of an exceptional yield of grass, grain and fruit throughout our county. The lack of abundant moisture in the earlier months of winter dwarfed grass and growing grain, but subsequent propitious weather advanced all vegetation almost to the usual growth noted at this time of the year.

Early sown grain has made a wonderful growth during the last month and grass destined for hay is forging rapidly ahead. Wild oats are heading, and also tame oats and barley. In a very short time the merry clatter of numerous mowing machines will be heard in every direction and we shall be in the midst of haying. Should present prices for wheat hold, as much of this grain will be reserved for threshing as possible, otherwise considerable will be cut for hay; yet wheat hay does not seem to be as popular with us as oat. Ball barley has been found to make excellent hay here, though perhaps one fault is that it grows too rank. The yield of hay per acre will be up to and about the average.

Regarding wheat, the outlook is not quite so bright as it was three or four weeks ago. The dreaded Hessian fly is working serious mischief in many fields in various localities in the lower Napa valley. It seems more widely scattered this season than in any preceding one. It is a little early yet to tell definitely of the ravages of this pest, but enough is in sight to cause considerable uneasiness on the part of many farmers. We trust things are not as bad as they seem.

For several years the Hessian fly has caused much injury to wheat in the Goscol district. Because of this, comparatively little wheat was sown there during the last two years. But, emboldened by the absence of the fly last year, farmers there sowed a large acreage this season. We await further developments.

The farmer has much to contend with in every branch of his work, whether it be grain-growing, grape-raising, or in caring for the orchard. It is not smooth sailing at all times by any means. This is it that causes many a farmer to take pessimistic views of life, and to bring much uneasiness to himself and his associates. But the happy-hearted farmer avoids all this discomfort, and doing the best he can, making the most of circumstances, fares far better than his complaining bothers.

Our valley never presented a finer appearance than just now when all verdure is growing so fast, the fields and hillsides dotted with flowers, bright sunshine, cloudless skies prevailing daily. Yet this is what we say, each spring of Napa valley.

Orchardists are very busy in finishing their spring work. More attention is paid to details of this branch of farming now than at any time heretofore, for the reason, we suppose, that the past one or two seasons have convinced many, who were before skeptics in the matter, that there is money in fruit raising, far more than in raising grain. Vineyard men are at work early and late plowing their vines for the second time. The young sprouts are growing rapidly and grapes are setting well. It is too early now to judge definitely regarding the coming crop, but present indications are very favorable for a large yield.

The same may be said of other kinds of fruit. The yield will be very large. Much thinning of apricots, peaches and other varieties will have to be done. Cherry trees never bloomed fuller than this spring; they simply could not. The fruit will soon be shipped from here in large quantities. Your readers are probably aware that our cherries were accounted the best that were placed on the New York market last season. At least this was the verdict of the Gothamites themselves.

Again this season many of our fruit-growers will ship large consignments of their produce direct to New York and other Eastern cities. Doing so last year, they realized well on their fruit, obtaining, in a large number of cases, far more than they would have done by shipping to markets in this State.

A growing industry—one yet in its infancy, one that promises to be a leading or at least a very prominent one in this valley in years not very far distant—is olive culture. A few olive yards in this vicinity are beginning to bear, and oil of a superior quality, though in limited quantity, has been made. Results have been obtained that show that there is much profit in this branch of horticulture. A small amount of the home-made oil was given to the public by a generous grower, Mr. Vincent Smith, this winter, and so great was the demand for it that a large quantity could have found ready sale in Napa City alone at leading prices. In the aggregate the number of olive trees planted in this valley is comparatively small, but more are being planted annually. There are hundreds of acres especially adapted to this fruit near at hand, and as it has been demonstrated that the trees fruit with us at an early age, yield abundantly, that a very excellent article of oil can be made and that the market for it is unlimited, there must, of course, be increased attention directed to this industry.

If olive oil snob as we can make in California,

such as is made by Cooper of Santa Barbara, or the Kimball Bros. of San Diego, is made in much greater quantity than at present, a large number of people will use, for many purposes, this wholesome article, who will not now buy the cottonseed surplus so often found in the market. Our home demand will be sufficient to use all our product for some time to come. But there is this further incentive for olive culture: We have the very large market of the whole United States. Consumers of olive oil in States near at hand, and far distant, will come to us for the pure article they cannot make because of climatic reasons, and we shall thus find an ever-widening market.

R.  
Napa, April 30 1891.

## Notes on a Back Number.

EDITORS PRESS:—Permit a few words of commendation upon papers in the PRESS of April 18:

1st. A comprehensive short essay on Agriculture by a young member of Waterloo Grange. I predict the writer will be known to the public before he hears the age of his present critic, who would say to him, go on brother.

2nd. That timely, good tempered, calm and truthful paper upon "These Abandoned Farms." After listening for years to the (almost weeping) Jeremiads of members of the Grange whose minds seem always to move in an orbit above practical labor and its best methods; to descriptions of the lamentable condition brought upon New England farm life by the "tariff," it is a great relief to learn from unquestionable statistics and common sense observation, that these farms are left without occupants from several causes, not one of which has anything to do with protective laws unless it is the making of life connected with manufactures, and transportation more profitable and more agreeable to the present generation of men in New England than cultivating lands (some of which ought never to have been disturbed by a plow, and others of which are not remunerative) in free trade competition with the richer, more fertile lands of the Middle West, chiefly delivered to New England consumers by the cheapest railroad freights in the world. Those who might have wrung a living from those stony hill sides as their forefathers did, it appears from your showing, have acted in accordance with the wise advice of grand old Horace Greely given long ago in the columns of the *N. Y. Tribune*. "If the farm is too poor to produce profitable crops leave it and work a richer soil, or turn to some other useful, more profitable occupation."

You have done a good service by showing that these abandoned farms are such, not because of the "McKinley Prices" Dr. Mateoson throws into his excellent paper on strawberries you give place to in the PRESS, but from entirely different causes.

The next paper which particularly riveted my attention, relates to Mrs. M. B. Stuart's account of the "Fresno Farmers' Institute." I am an old member of the Grange and the reading of Mrs. S's. paper suggested the desirability of having an "Institute" order of business which shall be a part of each meeting, being fully persuaded it would be time more profitably spent to receive instruction leading to making barren lands like alkaline soils fertile or the best method of successful production of a valuable textile like ramie than to listen to windy harangues as to how to compel the Government to furnish us with money enough to satisfy us, and at our own terms. The mention of "Ramie" brings me to the most excellent article of G. Hooziker. The influence which drew my attention to his paper was in part selfish. I own a body of rich alluvial land some of which produces a dense growth of nettles, and his paper leads me to believe that (provided our summer climate is sufficiently warm) it would be good ramie land.

In noting the papers mentioned, it is not to be understood there are not others equally praiseworthy from a different individual point of view.

O. O.  
Salem Or. April 20 1891.

## THE STOCK YARD.

## Damages for Cattle Killed by the Cars.

EDITORS PRESS:—On Dec. 10th, 1889 a train on the S. P. R. R. killed my cow. A neighbor was an eye witness. I wrote to the claim department of the R. R. Co., also to the superintendent of the division, but those officials failed to reply to my correspondence until I wrote to the General Supt when the claim department wrote they had been advised of the accident through the report of the section foreman, and requested that I forward the number of the engine and the name of the engineer. I obtained the desired information, then after a long delay on the part of the R. R. Co. I received the information, which I enjoin was intended for a squelcher, "that the engineer did not know anything about stock being killed, had not seen any." My reply was I did not have anything to do with what the engineer did not know, and if they were not going to pay my claim the court would settle it. The next move on the part of the company was that

an agent of the claim department would come and investigate the matter. He came and sent the section foreman to tell me "I would not get anything." I told him "the court might say differently." He said: "the R. R. Co. own the courts and everything, and do just as they please and you will not get anything."

To that choice piece of news I replied: "I am an American citizen. I believe that the courts of my country are greater than the S. P. R. R. Co., and we will see about that."

The claim agent came again and sent word he would like to see me. After misinformation from this same section-foreman as to where I would find the claim agent which caused me to lose considerable time, I finally met the agent at the Sacramento depot. I found him to be a man, who in my opinion is simply a bluffer and bulldozer for the R. R. company. He has not authority to settle, but could only give the encouragement that a jury would never give me pay for the cow; he would make his report and the company would do what is just and right, and what they did not think was just and right, they would fight until doom's day.

I saw my attorney, Clinton L. White; he told me I had a good case, so after waiting ample time for the R. R. company to do what is "just and right (?)" and they not materializing on that point, I sued the company before Justice Foster of Brighton and got judgment. The R. R. company appealed, continued the case once, and then settled it without allowing the case to come to trial on the appeal; and paid for the cow and costs.

If I were to have another case where the R. R. company owed me for stock they had killed, I would not lose so much time with it. If my claim was not paid on demand, I would have my attorney bring suit at once.

I have written this to give encouragement to others who may have just claims against the S. P. Co. for stock killed, and it is my opinion it is better to sue, even if one knows the lawyer's fee and the trouble will take the entire value of the animal than to be bluffed out by the officials of the company and their assistants, even if they do claim the company "own the courts and everything, and do as they please."

Mr. White only charged me \$20 and I sued for \$45—and got it, and the "owner of the courts" R. R. Co. had to pay the courts and witnesses, so it paid me in dollars besides the satisfaction in proving that the courts of this State are not the property of the S. P. R. R. Company.

If there is one thing more than any other that makes me indignant, it is when I hear this cry about the S. P. Co. owning everything in this State, courts and all, for I don't believe it, and when I hear such talk it makes me think of the history of the Jesse James' gang. That gang defied the authorities for years for the reason the people of the State of Missouri were terrorized to such an extent that they became aiders and abettors of the criminals in that they would hide them and give them information concerning the movements of the officers, and the people of this State have been held up so often by this "owner of the courts" R. R. Co. that they are terrorized to such an extent that they stand and deliver on demand of this Jesse James' gang of California without lifting a hand to strike in self defense.

Sacramento, Cal.

R. A. EASTON.

## Bermuda Grass in the Wrong Place.

EDITORS PRESS:—In the PRESS of the 11th is an essay by Capt. Dawes on Bermuda grass for alkali soils, in which he takes occasion to praise it very highly.

Here we call it "Devil Grass," and the name is quite appropriate and well deserved. From the experience we have had with this grass, we think the article referred to is apt to be a little misleading. If it is wanted to strengthen a ditch bank, we know of nothing which would answer the purpose to better satisfaction. But right there its usefulness ends, for it will run its shoots down to the water's edge and gradually encroach upon the running stream. It stops floating debris and so helps to obstruct the ditch.

It costs our water company thousands of dollars each year to keep our canals and lateral ditches temporarily free from this grass; and the trouble does not stop there either; for the grass seeds drop into the water and are carried on to land being irrigated, and whenever a seed stops there it takes root; and if we give it half a chance it will take possession of the ranch, and choke out everything else. If it once gets a start eternal vigilance and constant cultivation will be necessary to exterminate it.

As a forage plant it is passable, and by its persistency it will crowd weeds and everything else out of the soil. With us the roots run underground as freely as on top.

The rain we had a few days ago is pushing the barley crop along nicely. We have had a cold backward spring, but it is coming out warm and pleasant now. Delicious trees and Muscat vines started out two weeks ago.

We bear many reports saying that the vine disease has run its course and stopped in Orange and Santa Ana, and that many new vineyards have been started successfully in those localities. Now we are slow to believe it with the disease all around us, and we should be pleased to hear from some one living in those places.

Riverside.

SULPHUR.

## ENTOMOLOGICAL.

## Parasites of the San Jose Scale.

[By ED. M. EHRLHORN, before the California Entomological Society.]

Our knowledge is somewhat limited regarding the amount of destruction effected by the San Jose scale parasite, nevertheless the work that this chalcid fly has accomplished is very perceptible in many orchards.

The *Aphelinus fuscipennis* is the one most commonly found on the San Jose scale (*Aspidiotus perniciosus*), and is known as the "San Jose scale parasite." It is also known to be very parasitic upon the *Mytilaspis* species. I am not positive that I have hatched this parasite from the greedy scale (*Aspidiotus rapax*), although I have observed some evidences of chalcid workings upon them. The two species of scale (*A. perniciosus* and *A. Rapax*) infested the same trees, nevertheless I do not wish to draw any hasty inferences without further investigation.

Description—*Aphelinus fuscipennis*, length of body 0.06 mm.; expanse of wings, 1.3 mm.; width of wing, widest part, 0.2 mm.; color light yellow, antennae fuscous, dark at tip; eyes black, three ocelli of a ruby color; legs and wing veins yellow; forewings with an irregular fuscous patch under stigma, another fuscous streak near base of wing. In hatching a quantity of these parasites I have found two sizes of the same color, and I have no doubt that the smaller one is the male. On warm days, about the beginning of March, I noticed the first parasites of the season sunning their wings and hatching in great numbers.

Although the *Aphelinus fuscipennis* is regarded as the sole parasite of the pernicious scale, I venture to say that I have hatched *Coccophagus citrinus* and *Aphelinus mytilaspidis* from the San Jose scale (*Aspidiotus perniciosus*).

The San Jose scale parasite *Aphelinus fuscipennis* has of late increased very rapidly in my orchard. In examining about ten inches of a branch, I have counted from 15 to 20 openings where the parasites had escaped. For hatching purposes, I use common cardboard boxes, generally from an inch to an inch and a half in depth. For some of the boxes I make a glass cover, as the sunlight appears to be beneficial in some cases, causing them to hatch more quickly. I think these parasites breed all the year round, and in the future, with the aid of the microscope and a closer study of the characteristics of these beautiful little chalcids, I hope we may subdue our scale pests and restore many an infested orchard.

Besides these parasites, we have numerous predaceous insects which are helping us a great deal in destroying scale pests. The twinstabbed ladybird, *Chilocorus binivertus*, stands at the head of the list. I have seen pear trees covered with San Jose scale one season, and have placed ten or more *Chilocorus* on each, and this year I cannot find a scale on such trees. *Coccinella oculata* is doing good work also on lecanium scales.

We are looking forward to the day when our able men will be sent to other countries in search of parasites and predaceous insects to relieve us from all the fruit-tree pests, like the *Vedalia cardinalis* did in vanishing the cottony cushion scale, *Icerya purchasi*, from our State, permitting the orange and lemon tree to resume their beautiful foliage.

## AGRICULTURAL SCIENCE.

## Specimens of Birds and Animals.

EDITORS PRESS:—The College authorities, believing that acquaintance with the appearance of our native animals on the part of students is advantageous, desire that there should be represented in its zoological museum, typical specimens of Oregon birds, mammals and reptiles.

With that object in view, they are prepared to pay just prices for desired specimens in the flesh, or mounted, or simple stuffed skins properly prepared.

Anything of such a nature sent to the college should be plainly marked "Museum of State Agricultural College, Corvallis, Or." and sent when possible by Wells, Fargo & Co.'s express, which company courteously carries such specimens gratis, when so addressed.

The College reserves the right to reject any specimen or specimens in poor condition, or those in which the workmanship does not reach the standard of excellence, or those with which the museum may have been previously supplied.

Although all, even the most common birds, mammals, reptiles, etc., are desired, such as blackbirds, sparrows, pigeons, hawks, moles, gophers, squirrels, snakes, turtles, etc., it would not be so advisable to send the more common species in the flesh (for these can easily be obtained by local collectors) as other rarer animals not so easy to procure. Such animals if they are to be several days on the road, should be disemboweled through a median slit about one-third the length of the animal, in the posterior part of the abdomen on ventral side, and they should be carefully packed.

It would be difficult to quote prices on such specimens as such prices would depend on market value of the animal, its rarity, desirability, etc., at the time of purchase.

A large series of specimens of *Haplodon*,



Mountain Beaver are desired, and if in good pelage, 75 cents each will be paid for ten or more. The same is true of *Lagomys* or Little Chief Hare, Pika Hare, Starved Rat, or Coney. A list of prices paid for mounted birds and bird skins will be sent on application. Representative mammals, as prairie dog, wolf, coyote, deer, cougar, jack-rabbit, etc., and good specimens of our water fowl and land birds, the venomous and non-venomous snakes, turtles, etc., are desired.

Note that everything of this nature sent to the college by express, must be plainly marked as above indicated. It is hoped that all interested in the growth of the museum who can help in this matter will do so. Specimens are frequently presented, and in such cases due credit is given the donor. Specimens molting or shedding their hair are not so desirable as those in good plumage and pelage.

Corvallis, Oregon. F. L. WASHBURN,  
Prof. of Zoology and Entomology.

THE FIELD.

That Bamboo Fence.

The question of the cost of fencing is always important in any country, and it is doubly so in California just now for many reasons. Few countries in the world are being laid out in smaller fields and in few is the price of the ordinary fence material higher than in California, especially at points where lumber is brought some distance by rail.

With these points in view, the *Echo* has given some attention to various plans that have been devised by ingenious farmers for providing a fence at less than the usual cost, and has made frequent mention of the bamboo fence. But some recent observations and inquiries have afforded information that seems to justify further notice of the subject.

The pioneer in the work in this county is C. A. Maul. Some two or three years ago he got a few bamboo roots from Mr. W. A. Saunders of Fresno county. These grew and multiplied until now Mr. Maul has about an acre set to this plant.

In the time that he has had it, opportunity has been afforded for studying its growth here, and it may now be asserted that on that point there is no need for fear. It does best in damp land, producing there the greatest number and largest growth of canes, but a valuable crop can be secured on land of ordinary moisture.

Mr. Maul has just completed the construction of a mile of fence, using these bamboo canes for pickets, and knows what the cost is. His plan was this: Second-hand railroad ties were bought and split for posts. These were set a rod apart. With a machine that costs about \$25, the canes were woven into a web, using six No. 14 wires for the chain. The canes were cut 3 1/2 feet long, the fence posts are four feet high and along the top of the ladder a barbed wire is stretched, so that when completed one has a chicken or rabbit-proof fence as well as a strong stock fence. This fence, Mr. Maul says, can be built for 40 cents a rod where one raises his own bamboo. He thinks the full annual capacity of an acre of bamboo, if well set and well watered, would be fully four miles of fencing.

The advantages of this fence are many. First and foremost it costs less than almost any other fence made; it is neat and attractive; about the only item of expense is for labor, and that keeps the money at home; it is very durable, the bamboo becoming as hard as bone and never rotting; rabbits cannot gnaw it, and it will not ignite from burning grass near it as common pine fencing or lath will; stock can see it and hence will not run against it; it can be made of any height desired, the canes growing as high as 12 to 15 feet; it may be taken down, rolled up and moved without injury and at slight expense. Mr. Maul made a few feet of it the other day and brought it to town, and it may be seen at Drury's drug store. It is worthy the attention of any person in the valley. It is not difficult to get a growth of this material, as it can be propagated by simply laying the stalks down and plowing them under; a bunch of canes will come up at each joint of the stalk covered. When one has raised all the fencing he wants, the roots may be plowed or dug out and the land is not injured.—*Kern County Echo*.

EXPORTING BEEF CATTLE.—Every beef animal that leaves the United States has its ear pierced. A fine wire passes through the hole, and attached to the wire is a tiny brass tag, not nearly so large as some of the ear pendants ladies need to wear. Upon the tag is a number and the initials "U. S. A." This shows that the animal has been examined by the United States Government Inspectors and is perfectly sound and healthy, and that even weak-stomached royalties may eat that beef with impunity. The Government deserves great credit for the pains it has taken to warrant the prime condition of American beef cattle. The influence of these thoroughgoing measures is already beginning to react favorably in Europe.

THE WEALTH OF THE UNITED STATES was assessed at nearly \$50,000,000,000 in 1880 and had nearly tripled in 20 years. Its actual aggregate in 1891 is probably very near to twice the great sum named.

THE IRRIGATOR.

Secretary Rusk on Irrigation.

Secretary Rusk was interviewed at Monterey by the *Chronicle* correspondent. As Mr. Rusk is the head of the Department of Agriculture, his observations in this State naturally are of much interest to the people. He was asked specially about the system of irrigation in California.

"An inquiry relating to this subject," he said, "is now being made by the Department of Agriculture. One report on irrigation and its value will be presented when Congress convenes, toward the close of this year. This second report will be interesting to the farmers of California."

"I have had my eyes opened to the productive capacity of California since I came out here on this trip. In the East, even as far west as the Middle States, California is still looked upon as a wild mining region. Yet statistics show it to be one of the greatest States in the Union in everything that goes to build up a commonwealth. Yet California is just in the morning of her glory."

Mr. Rusk said that the work of his Department in ascertaining the value of irrigation was undertaken by order of Congress, and that it has already revealed many interesting facts concerning this State.

"With skill and ingenuity the irrigation problem has been overcome out this way," he remarked, "and I am led to the conclusion that on a conservative estimate 25,000,000 acres of California's great domain can be made arable provided sufficient water for this reclamation is obtainable. The water now lost through lack of storage reservoirs will help considerably to satisfy the thirst of the arid lands when such reservoirs are built. Though the desert to the south has annually scarce a trace of rain and though throughout the San Joaquin valley the rainfall is only from seven inches at the south to 20 inches at the north, yet an enormous precipitation is had upon the Sierra and Coast Ranges, and if this rain were saved it could be utilized for the other regions I mentioned. In this supply of water there is a source of wealth more continuous and greater in amount than all this State's marvelous production of gold and silver."

The Secretary went on to say that he had found the methods of irrigation in California to be of all varieties, from the primitive ditch of the village Indian to the steel-pipe line.

"In the system of irrigation districts now followed in this State," he went on, "a way is being opened which will doubtless lead to the settlement of the disturbing questions in water litigation. By this system the control of water, the cost of works, the supervision of distribution, is being transferred peaceably and with full equity from private individuals and companies to the community. This system supplies methods which insure unity of supply, economy in use and diminished cost. It is very praiseworthy."

Mr. Rusk generalized the whole subject then by observing that no one question which is being investigated by his Department is of more significance therefore than the growth of the California district system.

"The records of 28 districts," he continued, "have been received at the Department. The territory covered by these reports is more than 1,500,000 acres. For the construction of works in these districts bonds have been voted to the amount of over \$11,000,000. There seems to be no room to doubt after reading these records that the people here have found a wise and equitable method of solving the legal administrative difficulties connected with the use of water as an industrial agent. As a result, California has many orchards and vineyards producing from \$75 to \$400 per acre. In Riverside I was told that some places there yielded \$1100 an acre in one year. I have also been informed that it is getting to be no very unusual thing to make \$1000 off one acre in a single year in California."

"In the southern part of this State it is estimated that ten acres of fruit land will support an average family in comfort, while the prosperity of horticulture with 20 acres of land under their control is remarkable. This method of cultivation by irrigation, which must in a greater or less degree dominate agriculture in California, has already in some sections increased the value of land to a price ranging from \$50 to \$2000 per acre. Of course the number of improved acres fetching the latter price is very limited, but no one can closely estimate the possibilities of semi-tropical horticulture or the limits of reclamation."

Mr. Rusk felt enthusiastic over the future of California. "It is now the first State in the Union so far as fruit is concerned," he said. "It is the third in wheat. Twenty per cent of all the wheat exported last year was sent from California. In the production of wool it ranks third or fourth, its exports of that commodity for a year reaching \$35,000,000. Over \$10,000,000 worth of fruits was sent to Eastern cities from this State last year and readily found a market. A significant fact in this State, is that notwithstanding all these products, the Government land in California still unsettled is 54,000,000 acres, according to the Land Office records. California is indeed a great State."

FRUIT PRESERVATION.

Fruit Evaporating.

The following paper was read by Geo. A. Davis at the N. Y. Farmers' Institute:

Since the first appearance of fruit to the present time, the process of evaporating it has been going on, nor has this natural evaporation always rotted and destroyed the fruit; but in many localities, like the South of Europe or the Italy of our own country—Southern California—it has falsified a product that cannot be equaled by the best artificial methods.

It will be of interest to know that the hand-somest dried fruit in California is dried on trays in the sun. In certain sections, the atmosphere is perfectly dry; in others, being moist, evaporators are used, but the results are not as satisfactory.

It is a singular fact that in localities where Nature cures her fruits best, she produces them in the greatest abundance. But while her ways are worth the time spent in their study, this paper must speak of evaporating by artificial methods.

There are a number of patents in use, and each has its merits. It is not an easy affair to operate an evaporator, and keep everything running smoothly and swiftly to the end of the season, when we take into consideration the rotting apples and the high price paid for them. The complicated paring machines are so easily put out of order that they are a continual source of annoyance.

The gentleman from whom I bought my evaporator informed me that he heard the call "machine broke!" so frequently that at night and for months afterward the cry rang in his ears, so that he quit the business principally on account of this annoyance. When finally we get the apple pared, cored and trimmed, it is bleached, sliced and spread on trays to dry. In order to succeed in producing a fancy article, it is necessary to subject the green fruit to a swift-moving current of hot air, and as it begins to dry to gradually remove from the heat, supplying fresh fruit in its place. A high temperature is greatly to be preferred, as air holds more moisture when heated. To illustrate: Air at the freezing point absorbs the one hundred and sixtieth part only of its own weight of moisture, and every 27 additional degrees of heat doubles its absorbing power. Hence air at 22 degrees F. will absorb four-fifths of its weight, while at 248 degrees heated air will absorb one and three-fifths of its weight. Hot air alone will not do. Fruit will cook in water at 212 degrees, or bake in an oven at 225 degrees, but if the air circulates fast enough, the fruit will not cook or burn or even become heated at the temperature indicated by the thermometer, even at 300 degrees, for the evaporation of water is a cooling process. The air in motion, together with the heat, causes the fruit to dry rapidly. The chemical changes which belong to truly evaporated fruit will now begin, and the albumen is coagulated precisely the same as in an egg when boiled. All the fruit jelly remains in the cells or is left upon the surface by the evaporation of the water in which it was dissolved. The germs of animal or vegetable life are destroyed by the high heat. It is by these changes and uniting a part of the water already contained in the fruit with the starch that the truly evaporated products are rendered more wholesome, more digestible and less perishable, and consequently more valuable.

In regard to the magnitude of the apple evaporating business it is difficult to give exact figures. It amounts to many millions of dollars in the United States, and the other evaporated fruits to several million more; this too, in a business that was unknown twenty years ago. There is very little evaporating done outside of this country, except in Canada, and there the product is not large in ordinary years. When the apple crop is small in New York State, many take their evaporators to Canada. This was the case during the past season, and was also the cause of prices on chops suddenly dropping in November last.

Most of the evaporators in this State are in western New York. Within a radius of 40 miles of Rochester there are more than 1500 with varying capacity of from 25 bushels per day to the large establishment drying 1000 bushels in 24 hours.

The products of the apple evaporator are "white stock," "skins and cores" and "chops." The white stock is boxed and is known to the trade as evaporated apples. The skins and cores are packed in barrels and shipped to New York and other points, where they are used in the manufacture of jellies and other jams. The so-called chops are whole apples sliced and dried, packed in sugar barrels and exported mostly to France for champagne cider, but they are also used in this country for jelly and apple butter. The process of the manufacture of champagne cider has never been found out in this country. Germany takes the largest amount of evaporated apples which are exported; England next; but all countries take more or less, and many go to Australia. Germany has issued a decree that no evaporated apples be admitted into the country without a chemist's certificate that they contain no zinc poison. The fruit is evaporated on galvanized iron trays, and they assert it takes poison from them. How this will affect the future trade with that country remains to be seen.

SHEEP AND WOOL.

Sheep-Raising in Yolo County.

EDITORS PRESS:—The wool-growers of California have received well merited encouragement in their pursuit through the late legislative enactment of a \$5 coyote scalp bounty. This law, it is hoped, will afford incentive to hunters, trappers and others, to wage an aggressive warfare against this destructive quadruped, which has proved a menace to profitable sheep-raising in many localities. The coyote has been especially troublesome and destructive of the interests of small flock-owners and others whose circumstances would not warrant the employment of herders. Heretofore sheepmen in most counties of this State have had to rely almost wholly upon their individual efforts for their protection, while the industry is as essentially beneficial to the State at large as its fruit-growing, which is fostered by the State treasury.

Yolo county was years ago one of the great sheep-raising districts of California, and to this industry may be attributed much of the wealth here accumulated prior to 1870. Upon the sudden transformation of the wild plains into an almost unbroken succession of wheat-fields 20 years ago, the festive shepherd and his faithful dog and flocks sought refuge in the rugged hills of the Coast Range, or hid away to more distant pastures new.

Let it not be understood, however, that sheep raising was then abandoned in Yolo Co. Far from it, though the numbers were greatly diminished the quantity of the stock has been much improved, until to-day the county has some of the most progressive and experienced sheep raisers in the State. Of this class Mr. Frank Bullard of Woodland has scarcely a rival as an importer and breeder of thorough bred Spanish Merino sheep, having taken sweepstakes at each State fair for six years out of the last seven.

The Yolo Co. Wool Growers Association formed two and a half years ago, has been of much benefit to sheep raisers of the county, especially in the matter of encouraging the destruction of coyotes, wild cats, etc., 234 scalps being brought before the association at Esparto since its organization for which the scalp possessors were paid the sum of \$4680. Of this amount Yolo Co., paid \$5 per scalp and the association the balance, \$15. Under the present State law, \$5 a scalp will come from the State treasury, the county will pay \$5 and the association \$10, making \$20 for each scalp as heretofore.

Thinking that perhaps it would be of interest, to publish, Mr. G. W. Chapman furnished me the number of sheep owned in the county by each member of the association. In some instances only an approximation of the lambs is noted. There are few sheep-owners in the county who are not among the following members of the association:

	Sheep.	Lambs.
G. W. Scott & Low.....	7,000	2,300
G. W. Chapman.....	4,500	2,300
W. Levy.....	3,000	1,300
Pace & Craner.....	3,000	1,200
W. Duncan.....	3,000	1,300
C. Nelson.....	3,000	1,800
J. R. Briggs.....	1,800	800
G. D. Stephens.....	1,500	1,000
J. C. Volmer.....	1,200	700
N. Switzer.....	1,400	700
R. Aucker.....	800	300
S. Hames.....	600	350
C. F. Smith.....	500	300
J. R. Parker.....	600	300
W. Cannedy.....	300	150

F. B. L.

Mohair

For 18 months, mohair has sold at good prices, and, in all probability, will continue to be profitable for live-stock men to raise for some time to come.

The slight falling off in the demand for the raw mohair from manufacturers of ladies' dress goods was counterbalanced by the new tariff, and to-day we have a good market for the domestic spring clip of 1891.

Operations in Liverpool, England and Constantinople, Turkey, have a decided influence upon the American market. Recently there have been few sales at the former place, and at low prices. Upon investigation, we found the stock quoted to have been inferior, and, further, that most of the desirable Turkey mohair is now held in Constantinople by strong houses, with confidence in the future.

Latest reports from Turkey show that speculators have commenced to figure there with some prominence, and the effect has been to put up prices already.

A large number of mills are now using domestic mohair, and with this increase in the number of consumers, there should be a more steady demand and a more uniform value.

Quotations.—Fine combing, 40 to 45c; fine medium combing, 36 to 40c; medium combing, 32 to 36c; coarse combing, 28 to 32c; coarse combing, inferior, 23 to 26c; ording, 12 to 18c; burry, 10 to 15c.

New York. WM. MACNAUGHTON'S SONS.

An electrical expert says no light has been found that will penetrate a fog better than the old oil lamp.



## PATRONS OF HUSBANDRY.

## Our Grange Edition.

The Grange news of most general interest is given through all editions of our paper on a special page. Several supplemental pages, devoted to Grange interests, are added in our Grange edition, which any subscriber can receive in lieu of the regular edition WITHOUT EXTRA COST, by addressing the publishers.

## The Master's Desk.

R. W. DAVIS, W. M. S. G. OF CALIFORNIA.

The architect prepares a plan for his building; the army officer outlines a plan for his campaign; the orator conceives a plan for his argument and oration; the attorney has a plan for the trial; the doctor originates a plan for curing his patient; the railroad president studies a plan for getting coin; the machinist makes a plan (or model) for his machine; the successful farmer works by plan for cultivating his farms; the thrifty housewife devises a plan for her work. All through the various routine of "daily doings" we find, or ought to find, plan. Life is a plan. The minister tells us of the "plan of salvation." Now, what is wanted is to get you to plan to help the Grange. Help a fraternity that has a plan—a plan to relieve the sick and distressed, to educate, to protect, to purify, to fraternize, to enhance the value and charm of your country home, to make two blades of grass grow where but one grew before, to scatter seeds of kindness, to elevate the standard of manhood and womanhood, to plan wisely and hopefully for the future. Can you, will you, plan for upbuilding? If you are progressive, if you are philanthropic, if you are zealous, you will plan to join the farmers' grandest, best, oldest organization. A fraternity with a quarter of a century's history, the sturdy tree, faithful and tried old Grange. Plan to be a Patron of Husbandry!

Speaking of "plan," who will suggest the best plan for "calling the roll," at our next annual meeting of the State Grange? Don't you know we lose lots of time under the present "plan?"

Happiness ought to be your share. Do you have much of it? There are many persons who make themselves and others unhappy, who ought to be very happy. Let's see! Did you ever think how happy, thankfully happy, too, you ought to be for the full possession and use of the senses? Just think of the person who cannot see; of the other unfortunate who cannot hear; of the third who cannot speak; or of him who cannot walk; or the still more unfortunate one whose mind has been bereft of its reason.

Then there are ten thousand things around you that are placed there to make you happy and comfortable. Do you see and hear and enjoy them? If not, don't blame some one else. 'Tis true, there is sorrow in this world, but then there is much more of happiness than we are wont to admit. Get and scatter all the happiness you can!

## Still Advancing.

Several Granges in various parts of California are increasing in membership in a very encouraging manner. While some are instructing large classes of new candidates, there are a good many others that are receiving small accessions showing a healthy growth.

The adoption of the Trade Card system of co-operative buying in California is having a good effect so far as we can learn, wherever adopted. There should be more pains taken to enlighten all members in regard to this new feature of the Order.

## Three More Granges

Have lately fallen into our working line, viz: California, at Placerville, and Vacaville, both new Granges, and Dixon Grange, revived, giving altogether some 75 to 100 new members at present.

Past Master Overhiser started out this week for a Grange revival campaign southward. He will visit counties between Stanislaus and Kern, enlightening and reviving old Granges, and we hope organizing some new ones.

General Deputy Frisbie has visited quite a number of Granges in his district, sending us some good reports, as lately published.

Now let every General Deputy and District Deputy in the State start in for a general visitation and revival of Grange interests. It is a time that requires activity, and the labora of our husbandmen seem to be well rewarded, as Granges are increasing in membership.

No cause can be more worthy of hard labor. The world has produced no fraternal organization, all to all, superior to the Grange, and none need be asked or looked for. The Grange is what we make it. Patrons, whatever we attempt, strive to do it well!

VACAVILLE GRANGE DRILL MEETING.—A special drill meeting of members of Vaca Valley Grange was held at the residence of W. W. Smith, Esq., near Vacaville, on the evening of the 18th ult. Bro. F. B. Logan, Deputy, presided, and the reports that the attendance and good interest manifested by all to become acquainted with their duties and familiarize themselves with the unwritten work was very encouraging and augured well for the future success of the new Grange.

## Important Railroad Freight Decision.

Interstate Commission on "Farm Truck" Rates.

About three years ago, the good Patrons of Delaware finding themselves ground down by the railroads, and their fruit industries paralyzed, organized against their oppressors, and at a cost of several thousand dollars carried their case before the Interstate Commission.

The fight was a fierce one—unhounded wealth upon one side, oppressed farmers upon the other. The farmers' side was championed by Bro. A. M. Brown, Past Master State Grange of Delaware, strongly aided and upheld by the Worthy Master, Secretary and Lecturer of the National Grange.

The *Evening Star* of Washington, D. C., tells the story:

The Interstate Commerce Commission, April 13, 1891, decided the case of the Delaware State Grange of the P. of H., vs. the N. Y., Philadelphia and Norfolk R. R. Co., the Delaware R. R. Co., the Philadelphia, Wilmington and Baltimore R. R. Co., and the Pennsylvania R. R. Co., in favor of the complainants.

The points decided are briefly as follows: For a special service by a carrier, such as the transportation of perishable freight, requiring quick movement, prompt delivery at destination, special fitting up of cars, their withdrawal from other service and their return empty on fast time, all involving greater expense to the carrier, a higher rate than for the carriage of ordinary freight is warranted by the conditions of the service, and is reasonable and just.

But the higher rate for a special service should bear a just relation to the value of the service to the traffic, and is not wholly in the discretion of the carrier. While a carrier should be fully compensated, the public interests require that the traffic should not be rendered valueless to the producer, if the charges of the carrier have such an effect and can be reasonably reduced.

The requirements of the statute, that all rates shall be reasonable and just, involve a consideration of the commercial value of the traffic and imply that rates should be so adjusted that producers of traffic as well as carriers may carry on their pursuits successfully, if practicable, for both and without injustice to the carrier. The public good requires what is plainly the spirit of the law, that the transportation interests are not alone to be considered, but in the just exercise of regulation, care should be taken that the lawful and necessary occupation of citizens are not unjustly hindered.

The complaint was that the defendants' charges for transportation of specified perishable articles of truck farming from stations on their lines of railroad to Jersey City and Philadelphia were excessive and unreasonable, and that the charges were higher for the shorter distances from their stations on the peninsula in Delaware and Maryland than for the longer distance from Norfolk, Virginia. It was found that the charges on certain articles specified from stations on the peninsula were excessive, and a reduction was ordered of from 20 to 25 per cent.—*Am Grange Bulletin*.

## Stockton Grange Entertains Visitors.

Saturday, May 2d, was a gala day with the Grangers. On the morning train a large delegation of Merced Grangers and other friends arrived to pay a fraternal visit to the Stockton organization. There were also visitors from Placerville in Merced county, Yuba City in Sutter county, and from Martinez. Altogether the visitors numbered about 100.

The stay of the visitors in this city was made very pleasant. In the forenoon they were shown about the city and entertained, and at noon they were provided with lunch at the hotel. In the afternoon an open meeting was held of Stockton Grange and the hall was crowded. The hand-marks of the ladies were shown in numerous bouquets and floral decorations, which made the hall a very fragrant and inviting place. The open meeting continued until 4:30 o'clock, when the Grange went into closed session, and those not members were invited to withdraw.

During the open session Burdette Cornell, Deputy State Organizer of City Alliances, spoke on the subject of the new organization. In addition a program was rendered as follows: Quartet, "Cousin Jedediah," M. A. Alling, L. E. Overhiser, C. A. Merrill and N. Alling; lecture, Arthur Ashley; recitation, "The Bald-Headed Man," Mark Alling; recitation, "The Bright Side," Emma Perry of Merced; recitation, "Trouble in the 'Amen' Corner," Mrs. Mary Merrill; duet, "Hearts and Home," Flora Hareless and Mrs. N. Alling. The lecture, or perhaps essay would be a more appropriate word, of Mr. Ashley was a carefully prepared article, which showed that the writer had entered deeply into his subject. It was fraught with argument that could not but appeal to the best judgment and awaken the interest of the hearers.—*Independent*.

## Tulare Grange Picnic.

Remember that this occurs at Centennial Grove, in Tulare, on Saturday, May 9th. Also that Worthy Overseer A. P. Roache will deliver the address of the day. Worthy Past Master Overhiser will also be present, and no doubt other able speakers will assist in making

the occasion one of the most memorable of fraternal events in Tulare county. This is sufficient announcement to insure every brother and sister of the Order that they will be well paid for their attendance. Let none miss who can consistently go to this grand gathering.

## The Golden Wedding

Of Mr. and Mrs. G. P. Loucks of Pacheco.

"Is marriage a failure?" seems a floating question; but when the negative side recognizes that by array of successful paper, tin, crystal, silver and golden anniversaries, they surely are constrained to say, with writers of old, that "'tis not good for man to live alone," and that the blessedness of one in singleness of life is more than doubled in that of marriage.

Fifty years ago, in that grand old State of New York, a youthful couple took upon themselves those vows that make man and wife, and this same couple, readers mine, was our friends and neighbors, Bro. Geo. P. Loucks and wife. No introduction to Grangers is needed, for this brother stands as guardian of State membership, namely, as one of our Executive Committee, and to Contra Costans has his interest been closely allied since 1854. Births and marriages of their children have marked the intervening years, which but added to and made stronger the links binding them to our county.

As the 50th anniversary drew near, whisperings among home friends culminated in a general invitation to a golden wedding on April 22d, at their home in Pacheco. On entrance as hosts and ushers, were their sons Peter and Frank, with their families, who were ably supported by their daughters, Miss Annie and Mrs. Belle Sear, all of whom were again helped by grandchildren from the young wife of a few months to the wee toddling tots, who now and then imperiously claimed the blushing bride and groom of the day as grandma and grandpa. Gray hairs and spectacled eyes robed not this aging couple of their zest in life, nor of the happiness of the hospitable hours. Mrs. Loucks had from the secret places in her house brought forth the identical silk dress, lace collar and embroidered handkerchief that had graced a like occasion half a century ago. This quaint costume of her real bridal day made it seem as though that long-ago bride had made herself into a picture of today.

## This Ideal Home.

By loving hands had magically grown into a hower, so profuse were the floral gems, and as typical of the day's shadings, prominent was our beautiful State poppy, whose bright tints would almost seem to be stolen from our golden soil. Conspicuous among those tasteful decorations was the initial L, supported by the magical tell-tale year numbers, '41, '91, all wrought by these same flower artists who robbed hillsides and gardens to write in floral letters the old story of marriage. Music for the ear, beauty for the eye, refreshments for the taste, with friendly handshakes and kindly, loving glances, made this anniversary truly a bright and golden one; and if all the wishes of coming and going friends could be crystallized into real life, the days left to our friends will be as bright, if not brighter, than those that have marked their checkered past.

MRS. MARIA B. LANDERS.

Martinez, April 23, 1891.

## Proposed Excursion to Oregon

We have received the following circular which we presume has been sent to all Granges in California:

SANTA ROSA, CAL., April 20th, 1891.

To Patrons of California, Greeting:—Arrangements have been made with the Union Pacific Railway, (Ocean Division) whereby transportation by steamer (from San Francisco to Portland, Oregon, and return, for the purpose of attending the annual meeting of the Oregon State Grange), good for 60 days from date of issue for the round trip, will be made at \$25.00 for ten or more persons. If members of your Grange desire to accept these terms they should send their names, and have their money ready so as to leave San Francisco on or before May 23d. Applications for berths or passage should be made to D. W. Hitchcock, Gen'l Agent U. P. Ry., No. 1 Montgomery Street, San Francisco, Cal., or to E. W. Davis, Master State Grange, Santa Rosa, Cal. These are the best terms obtainable and are therefore submitted to you. If any one goes from your Grange, report the same at once, so that berths, etc., can be reserved. The fare from Portland, Oregon, to Hillsborough and return, will be an additional charge of \$1.80. Fraternally yours, E. W. DAVIS, W. M. C. S. G.

If Secretaries will send names to this office, of those going by steamer we will be pleased to report the same from time to time.

## Grange Picnics.

Name.	Place.	Date.
Tulare	Cent'l Grove	Sat., May 9.
Placer Co. Granges	Loomis	Thurs., May 14.
Sonoma Co. Granges	Bennett Val.	Sat., June 27.
Lockeford	Lockeford	Wed., May 13.
Watsonville	Aptos	Sat., June 6.

Notices of other picnics will be added to the above list when received.

## Sister Thistle at the Grangers' Picnic.

"The way to a man's heart is through his stomach;" so, acting upon this wise adage, I have been very much occupied all the week, cooking delicacies for the Sacramento Co. Grangers' picnic; otherwise I should have replied to Sister Thistle in your last issue. However, I am glad I did not, for I met her at the picnic, and after each of us had extended a hand of welcome to many friends, we slipped away to discuss the "old maid and old bachelor" question. Unfortunately, I did not see the article from "Old Maid" that called forth such a vivid description from Sister Thistle, of how to capture an old bachelor. When I read Sister T.'s article, I felt that she must have drawn upon her imagination somewhat; she tells me not, but that the half was only told. She was evidently unhappy about something, and opened her heart to me, telling me many things in regard to these awful men, which an old maid, who has never succeeded in making one of their hearts go up and down, and round and round, is always glad to hear. She told me that after using hooks, line, pole, and even drag net, to secure Edwin Thistle, that he would not succumb to her entreaties until she had gone through the tortures, perplexities and annoyances of a camping trip. He said he wanted to test her disposition, and after being a perfect model, during the trip had the audacity to tell her that her nose was not long enough. But the matter had gone too far by this time. Mrs. Grundy had them already engaged; and to save her too much annoyance and herself a cook, they were married. Her story touched my heart, and I made an effort to get her out of her seemingly unhappy state of mind. The day was perfect, and all

## Nature Smiled Upon the Thousands.

Who had come from far and near to enjoy the Grangers' picnic. We walked leisurely around and soon I had Sister T. interested in the new spring gowns and bonnets which are always on display picnic day. A feeling of indignation rose in me, when she told me that Edwin had assured her that the crops did not justify her having a new dress and hat, and all the while I knew that he indulged himself in the choicest olgars.

Sister T. ate lunch with me, and some of the delicacies that I had prepared especially for this wonderful drag net, I gave to her, keeping back just enough for one or two haits, for although her story had thoroughly convinced me that I am better off as an old maid, still my curiosity was aroused, and I wanted to try the drag net scheme, which I am obliged to say did not work successfully. I thought I had it quite well filled, when upon examination I found to my surprise that there was a good sized hole in the net, and I was left with only Sister T. on my hands, and Bobby too, for he had been with us all this time, and was beginning to get cross. He being an only child, of course was spoiled, and had inherited his father's peculiar disposition. It finally dawned upon me that possibly I could perform a mission in this world, that I might comfort the hearts of many noble women who are disappointed in their liege lords.

Sister Thistle's sad face inspired me, and I set to work with renewed energy. I put Bobby into a "merry go round" and told the high chief to keep it going until my return. Then again Sister T. and I strolled over the picnic grounds—a spot thickly covered with wide-spreading oaks and carpeted with velvety green—a spot where human nature communes with beautiful nature. Under some of the widest spreading trees a large platform had been erected. Here those who were still in the bloom of youth "tripped the light fantastic toe" to their hearts content, only stopping long enough to listen to

## Our Talented Master, E. W. Davis,

Who had made a real effort to be present with us on this occasion. Those who had the pleasure of listening to his eloquent speech were deeply interested, especially the members of the Grange. He always leads us to the right path, and if we find ourselves stumbling over underbrush (Grange difficulties) sets us well on our feet.

Finally the sun began to sink, and gradually one by one the picnickers gathered together baskets and babies and started for home. In each face there seemed to hover a feeling of satisfaction, and I noticed especially that Sister Thistle was much brighter and more willing to think kindly of Edwin. It was not until I promised her faithfully that I would see that he did not make love to half a dozen girls at one time, in case of her death, that she had me good-bye and pressed my hand with a "God bless you."

OLD MAID No. 2.  
Sacramento Co., May 3d.

TO CELEBRATE JULY FOURTH.—At the last regular meeting of Glenwood Grange, No. 94, it was unanimously voted to publicly celebrate the Fourth of July under the management of the Grange. All will be invited to participate. J. C. Shaw and F. F. Wylie were appointed to select an orator. All arrangements will be made at the next regular meeting for carrying out a full program. Respectfully, Mrs. T. J. SHAW, Sec'y.

BRO. J. O. PURVINE of Two Rock Grange, Petaluma county, sends us a dish of 10 subscribers—all members of that Grange—for which we return thanks.



FARMERS' ALLIANCE.

Alliance Edition.

Subscribers can receive our FARMERS' ALLIANCE EDITION WITHOUT EXTRA COST, by applying for the same. That edition contains several supplemental pages of Alliance matter, in addition to that which appears on this page through all editions.

Our Three Editions.

First, we print our REGULAR EDITION for general circulation, containing about one page of Grange matter, supposed to be of most interest and importance to all subscribers. It also contains a like selection of Farmers' Alliance reading.

SECOND, we print a GRANGE EDITION, containing several supplemental Grange pages.

THIRD, is issued the FARMERS' ALLIANCE EDITION containing several Alliance pages, in place of the supplemental Grange pages.

Which Do You Want?

Subscribers can, at any time, change their subscription from one edition to another, without extra cost, by writing to the office. Be sure to give plainly your name, P. O., the edition now taken and the one preferred.

Alliance Meetings in Solano and Yolo Counties.

[From the State Lecturer.]

Since our report of the very pleasant and profitable meeting with the brethren and friends at Orland, we have visited Dixon and Elmira, in Solano county, and Winters and Dunnigan, in Yolo.

At the meetings in Dixon, Elmira and Winters, we had a goodly number of listeners, and while the attendance at either place was not large, it was much larger than we expected when we learned of their close proximity to the numerous picnics that were held all through that region on and about May Day. One thing, however, was quite noticeable, to wit, that each of the assemblies was composed of intelligent representative men and women, who really represent a larger and stronger element in society than many assemblies composed of five times their number. The greatest possible interest was manifested by all, and throughout the entire proceedings, each seemed to vie with his neighbor in trying to learn the most of the work and the most of the teachings of our Order.

We were met at Winters by Bro. Peter Roth, Vice President of the State F. A. & I. U., who attended our meeting at that place and next morning took us in his buggy to his home, a distance of 15 miles. We found him located in a pleasant and charmingly prosperous home and surrounded by a prosperous family and all the evidences of thrift and enterprise. On the evening of that day (May 1st) he held a oiled meeting, composed of his Alliance and other interested parties, which we had the pleasure of addressing, and to all appearances the time was well spent.

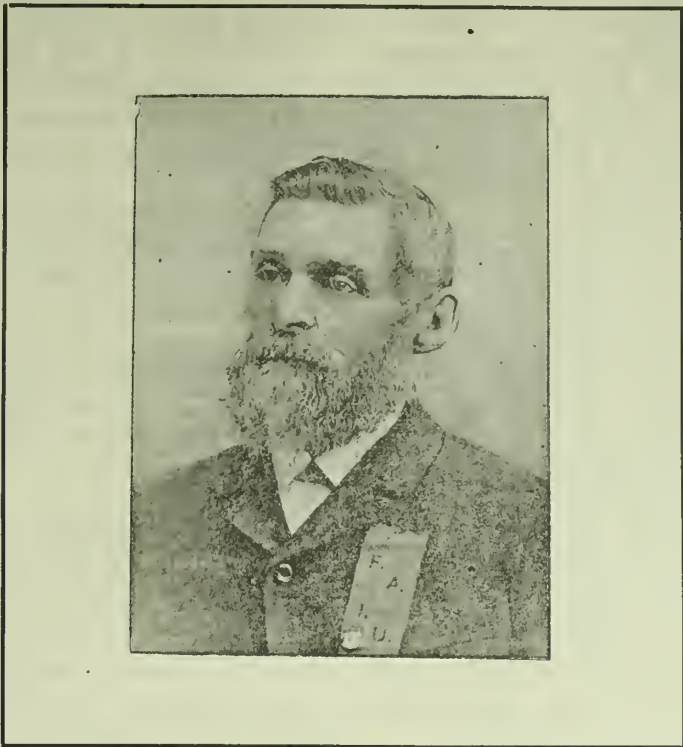
Next morning we went, in company with Bro. Roth and family, to Wildwood Grove, where the great event (a picnic) of the trip was to occur. We are informed that it was the largest picnic held in that section of country. Surely it was one of the most pleasant and successful we ever attended. The prominent figure on the ground was Bro. Gallup, who seemed to have entire control, and that control was exercised in an intelligent and very prudent manner. The exercises, aside from speaking, consisted in music, dancing, games and amusements of various kinds. The music for the picnic was furnished by a local brass band, who did credit to themselves and community, after which we spoke for about an hour and a half. We were followed by Bro. Peter Roth, who made a short but pointed and forcible address. The company then adjourned to the dinner-table, which was loaded with the best the world affords, and in quantities that showed no signs of diminution, even when all were satisfied. While great credit is due to all, we feel like making special mention of Bro. Gallup, and also the ladies who ornamented the grounds and prepared the dinner.

From the number of Alliances organized in that part, and the interest taken by all, we judge he has been doing something besides Gallup-ing around the country, and has probably done as much as any other one man to build up our cause.

I expect to attend the meeting at Lodi, San Joaquin Co., on the 6th, to hear Bro. Cannon speak.

**JOINT PICNIC.**—The Granges and Farmers' Alliances of Tulare and adjoining counties will meet for a grand picnic at Centennial Grove, on Saturday, May 9th. Able speakers on the part of the Alliance and Grange will be present and speak for the farmers' cause. Let there be a grand, co-operative, jubilant time for old and young.

**THE President of Wildwood Alliance, Yolo county, is H. L. Line, and the Secretary, W. F. Smith.**



S. K. SHILLING, FIRST SUB ALLIANCE VICE-PRES. IN CALIFORNIA.

The Alliance at the North and West.

Iowa.

The Farmers' Alliance is spreading in the State like hot cakes, no less than 41 branches having been formed in one week.

Kentucky.

The State Secretary sent charters for 60 new sub Alliances during the month of March. Eighty-six of the 119 counties in the State are organized. There is a total of 2400 sub-unions in the State with a membership of more than 100,000 farmers.

Oregon.

Active organizing work is under way, and a State Alliance will probably be organized within the next two months.

Minnesota.

The number of Farmers' Alliance branches in the State is 1315, and others are being organized at the rate of six or seven a week. The Alliance has 11,000 more members than at the time of the election last fall.

And that is what the Alliance is doing by way of perfecting its organization in the various States enumerated in the foregoing. Other industrial parties are equally active in pursuing the same course, some intimation of which we have already given in a former issue. The information contained in these items shows but a small fraction of the work of organization now going on, but our readers will thereby get some idea of the drift and the activity that is being manifested in this respect.

It will readily be seen, from this brief outlook, that these organizations mean business, and that, if necessary, they will all be in good fighting trim for the great battle that is to come off in the next general campaign.

New England.

The New England States have been showing a lively interest in the Alliance for some time past. There have been hundreds of applications for Alliance literature, and particularly for the sub-treasury plan argument. In New Hampshire the interest has culminated in the organization of the Granite State Farmers' Alliance and Industrial Union at Troy, and a dispensation was sent there last week.

Ohio and New York.

State Alliances were organized this month in Ohio and New York. Both are well equipped for entering upon active organized work. In Ohio there are 187 sub Alliances, with a membership of over 8000.

New York has 241 sub Alliances with a membership exceeding 10,000.

Pennsylvania.

The State Alliance was organized April 14, 1890. There are now over 200 sub Alliances with more than 10,000 members, and our friends are organizing at the rate of one Alliance a day, Sundays included.

Virginia.

There are 1325 sub Organizations of the Farmers' Alliance in the State, and 94 counties are thoroughly organized.

Washington.

Sub Alliances are being organized in every county in Eastern Washington. Conventions to organize County Alliances are called for meeting in this and the following months.

Wisconsin.

Had only 78 sub organizations last June. There are now 236 Alliances organized. Applications for charters are received by the Secretary every day, and there will be over 300 organizations before the end of next month.

West Virginia.

Was organized seven months ago. There are now 433 organizations reported, and the work is more vigorous and active than ever before.

S. K. Shilling.

Bro. Shilling is one of the honest, earnest and steadfast leaders in Santa Barbara county. He has the honor of being the first Vice-Pres. of the first County Alliance organized in the State of California. We had the pleasure of meeting him at the State organization at San Jose in November last, when, with other sterling men, he took an active part in launching the State Alliance in good shape on a safe and fruitful voyage.

Bro. Shilling's parents are of German extraction. When married, they moved from Pennsylvania, their native State, to Stark county, Ohio, where they raised a family of seven children, the subject of our sketch being the seventh-born, seeing the first light of day on Oct. 18, 1839. When nine years of age, his parents moved to Cass county, Indiana. In 1863 Bro. Shilling crossed the "plains," arriving in Nevada in the same year, where he remained until the spring of 1864, when he left for California. He married in the fall of 1870 and with his wife returned to Indiana. In 1877 he was agent for the Grange store at Logansport, Indiana. One year later, or in 1878, he, with his family, moved back to California, settling at Lompoc, Santa Barbara county, where they continued to live. He is a charter member of Lompoc Alliance No. 6, of which he has been president since its organization. He is also president of the Santa Barbara County Alliance, which is the first county Alliance organized in the State. He is a staunch supporter of the Alliance and a firm believer in its principles.

Bro. Cornell at Warm Springs.

**EDITORS PRESS:**—On Wednesday evening, April 29th, Bro. Burdette Cornell delivered a stirring address here under the auspices of the Warm Springs F. A. Owing to the fact that many had driven to San Jose that afternoon, a distance of ten miles, to attend the reception of President Harrison, the audience was not as large as we could have desired, but about 70 of our representative citizens were present.

The gentleman spoke without notes, holding the attention of his hearers for nearly two hours, and in a concise and straightforward manner presented facts and figures relating to the Alliance movement from its first inception down to the present day.

Judging from the frequent applause during the lecture, and the hearty hand-shaking at its close, those present were well pleased with both lecture and lecturer.

Bro. Cornell, though a young man, is a very enthusiastic worker in our Order, and we here speak for him and our cause a brilliant and successful future.

MRS. L. A. SHAW,  
Sec'y Warm Springs F. A. & I. U.  
Warm Springs, May 4, 1891.

Summerland Citizens' Alliance.

The Summerland Citizens' Alliance, No. 1, was organized April 27th, with the following officers: President, H. W. Cornell; Lecturer, J. S. Loveland; Treasurer, J. W. Darling; Secretary, Melvin Snow; Doorkeeper, James Wilcox; Assistant Doorkeeper, Ray Gardner. This is the second organization of the kind in the State, and is the same as the Citizens' Alliance in Kansas that so thoroughly assisted the Farmers' Alliance in that State to play everlasting smash with the usual order of things political there. The organizer was Col. Jo. S. Barbee of Virginia, who organized the first Farmers' Alliance in California a year ago, which now has a membership little short of 25,000, the great majority of whom are voters. *Santa Barbara Star.*

Alliance County Notes.

Butte.

A. W. Hynes, S. Or. of the Farmers' Alliance, will remain for a week organizing sub Alliances in the county.—*Gridley Herald.*

Contra Costa.

Tassajara Cor. says: The Farmers' Alliance has been the all-absorbing topic of conversation lately, and the interest taken in it does not seem to abate.—*Martinez Democrat.*

Humboldt.

We had the pleasure of paying a friendly visit to the Centerville, Port Kenyon and Grizzly Bluff Alliances, and found them in a healthy, growing condition. They are not taking on so rapid a growth as some of the other Alliances, but they appear to be earnestly studying and discussing the objects of the Order, which is the best sign of their success.—*Western Watchman.*

Los Angeles.

The Farmers' Alliance of Wilmington held their annual picnic in the park, a mile to the north of the town of Wilmington, on May 1st. The Long Beach Alliance sent a delegation. The speeches of the day were by Rev. R. M. Behster of Long Beach and H. C. Dillon of Los Angeles. Music, and best of all, well-filled lunch-baskets and good cheer was the order of the day.—*L. B. Breaker.*

Hon. H. C. Dillon of Ceritos, the able exponent and one of the most prominent of the leaders in the Farmers' Alliance movement in Southern California, addressed the people of Rivera and vicinity, at the Rivera Town Hall, on Tuesday night, April 28. Mr. Dillon's address was an able exposition of the political and social conditions of our day, in contrast with the earlier history of our county. The future was of deep concern, and the advice and suggestions of the speaker were received with marked attention, as the deliberate opinions resulting from much study and reflection. Mr. Dillon's lecture could be listened to with profit in every rural hamlet in the land. As a finished, entertaining and eloquent speaker, Farmer Dillon stands first in rank among our Southern California orators.—*Champion.*

San Luis Obispo.

The Starkey Alliance continues to meet regularly, with full attendance and constantly increasing numbers.—*The Moon.*

Last Saturday night we had a pleasant Alliance meeting at Melville schoolhouse. It was well attended by our own members, as well as being honored by the presence of Mr. Smith, the Secretary of Monterey County Alliance, also Messrs. McCain and Pyat of the Parkfield Alliance and Mr. O'Hare of Vineyard, No. 1. Secretary Smith made a short but terse speech. Secretary Waggener gave us a splendid lecture on the principles of the Farmers' Alliance and Industrial Union, also a short lecture from President Cole on the Good of the Order. There were six more applications for membership, which shows that our Alliance is prospering.—*Melville Cor. Messenger.*

Santa Clara.

San Juan has a Farmers' Alliance Club.

Shasta.

The Farmers' Alliance of Enterprise schoolhouse had a picnic on May 1st. Those who attended say they had a good time. Sports, dancing, speaking, etc., was the order of the day.—*Democrat.*

Solano.

J. L. Gilbert, State Lect. of F. A. & I. U., addressed our citizens on Tuesday, April 28th. He described the origin and growth of the new movement, instituted comparisons between its creed and those of the two great parties, dilated on the plans of relief offered to the farmers by the Alliance, denounced national banks, railroads and other corporations, and ended by assuring his audience that the Alliance would not sanction the third party movement, which is at present exciting so much discussion by the press. Mr. Gilbert is a very convincing talker and held his audience in rapt attention for over an hour. At the close of the lecture, R. E. L. Stephens, President of the Silverville Alliance, made a few remarks, closing with the statement that the Alliance will hereafter hold its meetings in K. of P. Hall, Dixon, on the first and third Saturdays of each month at 2 p. m. *Dixon Tribune.*

Tulare.

The members of the Woodville Farmers' Alliance had a lively time at their last meeting. The question whether there should be any dancing at the Alliance picnic at Woodville was actively discussed, and the devotees of Terpsichore were defeated. It is stated that the minority will build a dancing platform anyway.—*Delta.*

**PRESIDENT CANNON** of the California Farmers' Alliance and Industrial Union writes State Deputy Cook as follows: "I intend to put the lecture system promulgated by the National Legislative Council into operation during the summer, and will provide for a system of lectures during the months of September and October by lecturers from the East, ending with the meeting of the State Alliance in Los Angeles.—*Modesto News.*

**H. L. LINE**, President Wildwood Alliance, Yolo Co., writes an encouraging letter, and promises to do all in his power to extend the circulation of the RURAL PRESS. It is through such friends we are cheered in our work of making the PRESS the paper for farmers.





### After Death in Arabia.

*He made life—and He takes it—but instead  
Gives more; praise the Restorer, Al-Mu'hid!*

He who died at Azan sends  
This to comfort faithful friends.

Faithful friends! it lies, I know,  
Pale and white and cold as snow;  
And ye say, "Abdullah's dead!"  
Weeping at my feet and head;  
I can see your falling tears;  
I can hear your cries and prayers;  
Yet I smile, and whisper this—  
"I am not that thing you kiss;

Cease your tears, and let it lie;  
It was mine, it is not I."

Sweet friends! what the women love,  
For its last bed in the grave,  
Is a tent which I am quitting,  
Is a garment no more fitting,  
Is a cage from which, at last,  
Like a hawk my soul hath passed.  
Love the inmate, not the room;  
The wearer, not the garb; the plume  
Of the falcon not the bars  
Which kept him from the splendid stars.

Loving friends! be wise, and dry  
Straightway every weeping eye;  
What ye lift upon the bier  
Is not worth a wistful tear.

'Tis an empty sea-shell, one  
Out of which the pearl is gone;  
The shell is broken, it lies there;  
The pearl, the all, the soul, is here.  
'Tis an earthen jar whose lid  
Allah sealed, the while it hid  
That treasure of His treasury,  
A mind which loved Him; let it lie!  
Let the shard be earth's once more,  
Since the gold shines in His store!

Allah Mu'hid, Allah most good!  
Now Thy grace is understood;  
Now my heart no longer wonders  
What Al-Barsadh\* is, which sunders

Life from death, and death from Heaven  
Nor the "Paradises Seven"  
Which the happy dead inherit;  
Nor those "birds" which bear each spirit  
Towards the Throne, "green birds and white,"  
Radiant, glorious, swift their flight!  
Now the long, long darkness ends,  
Yet ye wail, my foolish friends,  
While the man whom ye call "dead"  
In unbroken bliss instead  
Lives, and loves you; lost, 'tis true  
By any light which shines for you;  
But in light ye cannot see  
Of unfulfilled felicity,  
And enlarging Paradise  
Lives the life that never dies.

Farewell, friends! Yet not farewell;  
Where I am, ye too shall dwell.  
I am gone before your face  
A heart-beat's time, a grey ant's pace.  
When ye come where I have stepped,  
Ye will marvel why ye wept;  
Ye will know, by true love taught,  
That here is all, and there is naught.  
Weep awhile, if ye are fain,  
Sunshine still must follow rain!  
Only not at death, for death—  
Now I see—is that first breath  
Which our souls draw when we enter  
Life, that is of all life centre.

Know ye Allah's law is love,  
Viewed from Allah's Throne above:  
Be ye firm of trust, and come  
Faithful onward to your home!  
"La Allah illa Allah! Yea,  
Mu'hid! Restorer! Sovereign!" say!

*He who died at Azan gave  
This to those that made his grave.*

—Edwin Arnold.

\* Cf. Koran XXIII. Chapter "Of Believers."

### Mabel's Boarder

[Written for the RURAL PRESS by MAUD S. PEASLEE.]

It was such a cozy, pleasant little room with its bright red carpet. The canary obliterated sleepily in his brass cage hanging against the white lace curtains; the firelight flickered on the gilt frames of the pictures, and brightened the soft gold of Mabel's hair.

"Are you going down town this evening?" she asked, looking up from her work. She was sitting before the open fireplace with some pretty red knitting in her warm white hands. Her bright blue house dress was very becoming to her fair skin, and altogether made a pretty picture in her husband's eyes.

He thought so, and coming over, kissed her with a glad sense of proprietorship, as he answered her question with:

"Yes, but I won't be late."

She arose to help him on with his overcoat, and followed him to the door. It was always hard to see him go, this tall, handsome husband of hers. She pressed her head tenderly against his sleeve.

"I wish you weren't going to-night. I be-

grudge every hour you spend away from me, Bert," she said.

"Foolish little woman!" he said caressingly, "just run and get me a match for my cigar, Mabel. Now don't sit up for me, dear," he continued, as she came running back with his forgotten fence case, "I know you need the rest, and something may detain me." With another kiss, he hurried away, and she stood in the doorway listening to his footsteps dying away in the distance.

When she could hear them no longer, she roused herself with a little shiver, and closed the door. It was quite cold outside, and the afternoon had left a light fall of snow on the ground. It made the warm fireside quite comfortable, this lingering at the door, but Mabel stood leaning her head against the mantel, and hot tears dropped down on her interlaced fingers without being wiped off.

"Last night it was the club," she said aloud, "and to-morrow night is the lodge meeting, and after that it will be something else. Oh dear!" and she began sobbing in a pitiful way.

Presently she dried her eyes and pushed back the little rings of soft hair that had fallen over her forehead. She had not been well for quite a while, and it was against the doctor's orders to go out at night.

"It is of no use to expect Josie to-night," she thought, "for they have company. I wonder what I shall do with myself till bedtime." She opened the piano, and for quite a while played from memory by the light of the leaping, dancing flames. Then as her back began to ache, she rose and flung herself into the large sleepy hollow chair near the window.

The curtains were not drawn, and she could see the lights in the opposite house, and through the thin curtains could discern the shadowy outlines of the guests at Josie Farrell's home.

"I think it must be nice to be an old lady with lots of grown-up children," she said aloud, "then I'm sure one wouldn't ever be all alone."

She didn't envy Josie a bit, for she was a loyal little wife, and would not have changed places with any one else in the world. Only, she was so lonely, and she missed Bert so when he was away from home. The day was bad enough, but the winter evenings were so long, and she was so far from being well and strong that she was tired after doing her light housework. She could not employ her time with book, pen or needle for any length of time without great bodily weariness.

She looked about her now; it was such a dear little room, she loved everything in it. If Bert were only here! He often said she ought to have some of her friends come in and stay with her evenings, but she hated to parade her loneliness, and besides she loved him too dearly to be satisfied with anyone else's company save his. It seemed wrong to complain when it was the one grievance of her married life. Bert was good and tender to her. It was his hand that had surrounded her with all these comforts, with the soft pretty things her heart delighted in, with all the comforts that made life easy. Her piano was a present from him, but how little pleasure she took in playing or singing when he was not there to listen or join her with the violin.

She was too wise in the ways of mankind to make herself disagreeable by protesting very strongly against his habit. She was too unselfish to urge her own claims as much as she might have done. Sometimes, she suspected she was a little cowardly about it, for she so greatly dreaded any difference of opinion between them.

She felt it would be very hard to convince him that it was anything more than a whim of hers, but oh! she did hate staying alone so much. At home before she was married, the house was always full, and often seemed running over.

Josie was there very often in the evening, because she had a very tender corner in her heart for Mabel's oldest brother, now away at sea. She loved to talk of him, and was sincerely attached to his fair-haired sister for her own sake.

Half-defiant thoughts had all this while been running through Mabel's pretty head, as she swung her foot to and fro for want of other occupation. There seemed to be mutiny brewing in the Lightman family. She had never cried when he left her, or let him find her in tears when he came home, but she was sure he knew how she missed him. She had all this time been trying to think of a sure, practicable way to make him think she didn't care, and so rouse him to see what he was in danger of losing.

Now, of a sudden, her face lighted up, and the dimples played round her mouth, as she sprang to her feet, exclaiming: "Eureka! I know what to do now. My! won't there be some fun for a little while?"

Evidently a plot was on foot against Mr. Bert's peace of mind, for a letter was hastily written and sealed.

"Let me see," she said, "it ought to go out on to-night's mail to be sure to be in time. I can send it by the boy who brings the evening paper."

A cheery whistle soon warned her of his approach, and, with a white shawl over her head, she ran down to the gate to give it to him.

She laughed heartily when she regained the bright, warm room.

"Won't the dear boy be surprised when he gets the letter," she cried softly. "Let me think now, what were the songs he used to like best? I must get them out and practice them."

She did so, and, almost before she knew it,

the little clock chimed out ten o'clock, and she heard her husband's footsteps on the porch.

"Why Mabel, you up yet? What bright eyes and rosy cheeks you've got to-night. Did you miss me much, little girl?" he asked.

"No; not nearly as much as usual," was her surprising answer.

"The deuce you didn't," he muttered under his breath. "Have you had company?" he asked aloud.

"No; I've been all alone with my thoughts," she answered with a queer little smile.

"They must have been wonderfully good company," he thought, "to make her look like that."

The next morning, at the breakfast-table, she said:

"Bert, I've decided to take a boarder."

"Well, I hope she'll be a pleasant companion for you," he answered. "It seems to me a good plan. I am out so often in the evening, it leaves you a great deal alone. Who is she?"

"It's a gentleman."

"What!" exclaimed Bert. "What nonsense! It's impossible."

"Hardly impossible," said Mabel. "He is an old friend of mine, and comes with every necessary recommendation besides. I wrote to mama last night that I would take him, and enclosed a note to him, so it can hardly be helped now."

"Well! you settled it quickly. What induced you to take him at all, I can't see."

"It had to be decided at once, for he wants to come next Monday, and I see no reason why I should not take him. You suggested my keeping a boarder some time ago."

"Only because you are alone so much. This will not help that trouble at all."

Here a queer little smile flitted over Mabel's face.

"Besides, her husband continued, it will only make extra work for you, and you are so opposed to keeping a girl."

"If I find the work too heavy, he can take his meals down town," said Mabel. "See! it is nearly eight o'clock; you will be late at the office."

She followed him as usual to the door for the good-bye kiss, and then went about her tasks with a light heart.

"Dear old Ned!" she said, "what happy times we will have together."

The next brought a letter from her old home. At the close, the writer said:

"I will surely be with you on Monday. There is not the slightest danger of recognition. You will hardly know me yourself. I hear that the Farrells are living in Glenn City now. I wonder if Josie remembers me. I think we'll have great larks together old girl. I suppose it will hardly do now, to send you a good hug and kiss, but I'm much afraid I can't refrain when I see you."

This letter Mistress Mabel very carefully destroyed, nor did she speak of it to Bert, who was as yet, all unsuspecting.

The boarder arrived in due season, and was soon comfortably settled in his new quarters. A cleverly contrived errand sent Bert down town before supper, and Mabel was soon in the arms of the black-headed stranger, who kissed her many times before he set her on her feet.

"Oh! how glad I am to see you," she cried, giving him a pinch to convince herself of his presence in reality. "However will we keep Bert from finding out who you are? Mind, you wait for the word from me."

When Bert came back they had supper, and that evening he and Mr. Spencer went down town. They were together for awhile and finally Bert missed him in a crowd, and was not surprised to find him at home when he reached there a little earlier than usual.

"I missed you, and so made my way home, where your wife has been kindly entertaining me with some music," said Mr. Spencer, as Bert came in.

"Mr. Spencer has a fine voice," said Mabel, and then turning to him, said:

"Let us sing that duet we were trying for my husband."

It was very well rendered, for their voices blended admirably, and when they were through Bert applauded heartily.

"You sing wonderfully well together," he said.

"Yes," answered Mr. Spencer, "we used to sing together a good deal."

"You know we were schoolmates," said Mabel a little hastily.

Just before they separated for the night she found a chance to caution him against alluding to the past.

"I should think he would wonder what I am here for," said Mr. Spencer. "Don't he ask lots of questions?"

"Yes, he was rather curious, but mamma's recommendation seemed all-sufficient at last. I assured him it was none of our business why you came."

"What shall you tell him by and by?"

"Oh, when it all comes out I'll try to make him believe you were only trying to find out whether Josie had forgotten you or not. I wonder if she would marry you after you had given her time to fall in love with you, or if she would remain 'true to the sailor boy' she used to know."

Mr. Spencer's dark face flushed as she finished.

"I would rather she were true to the first love," he said.

"Oh, yes, I know you always made a point of constancy. I'm grieved at one thing I see in you, my dear; you've been smoking. Now

Bert never smokes or drinks or gambles; he's a model husband in such matters, I can assure you."

"Don't hold him up as a pattern to me, sweetheart, or I'll be tempted to break his head."

"What! jealous still? Silly fellow," she said. "Hush! here he comes. I'm off to bed now. Good night."

When Bert came in the room Mabel had left, and Mr. Spencer was ready to retire when his light was given to him.

After that the days slipped away rapidly. Mr. Spencer seemed to be reading law in a lawyer's office, and was rarely at the house in the daytime. At first he went down town in the evening with Bert, but was always home first. By-and-by he said he thought he would stay at home and read. After one or two evenings, during which Bert's thoughts kept turning to the cozy little parlor at home, where one could be so comfortable (strange he had not been accustomed to give it a thought till bedtime) he, too, stayed at home.

Early in the evening, Mr. Spencer went over to Josie Fuller's and was not back till late.

Bert spent a very pleasant evening with his wife, and did not leave her in the evening again for nearly a week. Each evening Mr. Spencer spent at Josie's, or down town, but when Bert began going down again at night, he had to leave the boarder by the cozy fireside with his wife.

Poor Bert began to be much puzzled. He was not a jealous or suspicious man, but he wondered why Mr. Spencer never cared to stay at home when he was there. He spoke to his wife about it in a laughing way, but she treated the matter with perfect indifference.

"He comes and goes as he pleases," she said, "and the least I can do is to be pleasant to him when he stays."

"Oh! I always want you to be that, Mabel," said her husband. "Pray do not misunderstand me." But the poor fellow was no easier in mind than before.

Mabel seemed much more cheerful, and while she always showed pleasure at having Bert at home in the evening, she now took his frequent absences quite as a matter of course.

This was anything but pleasant to her husband, and he began to be watchful, for little things had aroused his suspicions, and he could not help being worried about the presence of this man whose company seemed to reconcile Mabel's heart to the loss of his own society.

Gradually he began to take less and less pleasure in going down town at night, and before a great while had passed, spent all his evenings at home.

From that time he could see nothing to confirm his suspicions, for Mabel was bright, natural and happy, whether Mr. Spencer was present or not. She invited Josie over often, and the four practiced new music together, and learned new songs, till Bert laughingly proposed that they should go out serenading. He proposed that while the ladies were busy with their fancywork, he and Mr. Spencer should take turns in reading aloud from one of the popular books of the day.

Whenever occasion presented, the two couples went together to places of amusement, and somewhat to Bert's surprise, his wife always preferred his escort, and laughingly refused to allow him to take Josie. He began to notice a very marked tenderness in the attentions Mr. Spencer showed Josie, and spoke of it to his wife.

"I thought she was greatly attached to your sailor brother," he said.

"She did seem to be," said Mabel, "but she was always opposed to his following the sea, and perhaps she will give up him for Mr. Spencer. Who knows?"

"What kind of a looking man is your brother, dear?"

"No doubt he has changed a great deal since he went to sea," she answered evasively. "I think he must look much changed since he began wearing a beard."

It was not long after this that Mr. Spencer ventured to tell Josie how dear she had grown to him, and then asked her to promise to be faithful to him till he had finished his legal studies and had a home to take her to.

"She owned she loves me," he said to Mabel in telling her of his success, "and at the same time told me, with many blushes, that I was not the first one who had held her affections. She confessed that she loved me better than this other one, whose name she would not tell me. Is it not fortunate that I am loved best?"

"Yes indeed," said Mabel laughing, "and I think you ought to acknowledge your identity now, and let her see how true she has really been. I'm sure she will recognize you when you have shaved off that great beard. She has several times asked me if I didn't notice how much you look like Ned."

"Well, I'm willing to unmask if you are through with Mr. Spencer."

"I've no more need of him," said Mabel, with a lightened color. "Bert has grown very well used to staying at home in the evening. He says he had no idea how much he was missing when he stayed away so often. I don't know just how he'll take the little trick we have played on him. I think he likes you very much without knowing who you are. Don't tell him it was on his account you concealed your identity. Let me do that by and by."

So it was agreed, and that evening, Mr. Spencer made a pretense of going down town, and while he was gone Josie came in. She



wore a ring on her engagement finger which she seemed quite shy of showing.

"I couldn't help loving him; he reminds me so much of Ned," she whispered to Mahel who laughed and called her a little flirt.

"By the way," she said, "Mamma sent me a picture of Ned the other day. He must look funny with a beard."

Just as she stood the large cabinet of her brother before Josie and her husband who sat beside the centre table, the door opened, and in walked.

"Ned!" cried Josie, and quietly fainted in his arms.

"Why its Spencer!" said Bert Lightman as he looked up from the picture to their boarder who had brought Josie back to consciousness with a very audible kiss.

"What does this mean?" he asked of Mabel a little sternly.

"Only a little ruse on the part of my sailor brother and your sometimes lonely wife to have some fun, and see if Miss Josie here did really love him or—some one else."

"What do you think Jo? Which have you jilted?" asked the quondam Spencer who, denuded of his heavy black beard, looked very like the sailor whose picture Bert was holding.

"Neither," she said shyly, "but I think I like the lawyer best. I wouldn't like to have you way on long voyages, and I wouldn't dare go too."

"You couldn't have fooled me, old fellow, if I had known you," said Bert. "I'm glad you're not likely to leave us, for we sing together too well to be separated. Besides Mabel might be lonely when I'm away," he added with a quizzical smile, for he had the good sense not to be offended at the lesson his wife had taught him.

### Fruit for the Fruitless.

EDITORS PRESS:—There is nothing of greater interest at home or abroad to every lover of the beautiful than a display of fruits or flowers.

As the producers rarely ever arrange their own exhibit, or give much thought to it after handing it over to a committee, it loses much of its individuality and becomes a heterogeneous mass. The careful growers' exhibit is mixed with others that may not have had half the thought and labor expended upon it.

We have had one year of citrus exhibits, one to the north of us, one to the south of us, and it is to be hoped that hereafter our eyes will be spared the torture of beholding any more towers, castles, dams, monograms, etc., being built up of oranges. Thousands of fruits that were used in such decorating, supposing they were not first-class in appearance, could, after the exhibits were over, have been sent to the kindergarten schools in the cities where the fairs were held, or, better still, to those of San Francisco, where Wells, Fargo & Co. carries and delivers all such gifts free of charge. Remember that, ye large orchardists whose trees groan under their burden of luscious fruits, and where some seasons grapes decay by the ton on the vine. It would be but the labor of a few moments to fill a box and take it to your express office, whose agent will very kindly attend to the address for you from a list that will be furnished them. Could you but see the delighted little ones gather about their box and enjoy its fullness like butterflies around flowers you would be so thankful that you had it in your power to make so many little ones happy at once. They rarely get enough fruit—in fact not too much of anything, and would have sad lives except for noble people that labor for them. M. M. C.

### Gems of Thought.

LIFE is not a game of "Button, button, who's got the button?" with its message, "Hold fast all I give you," and its end, empty hands for most, and the useless button for the favored one. He who takes for his motto, "Get all you can, and keep all you get," will invariably come to the preacher's conclusion, "Vanity of vanities, all is vanity," sooner or later.—*Lyman Abbott.*

How is it that there are men who, as Socrates did Aristides, make us better merely by our being with them? How do great authors bring it about, that their invisible spirit in their works seizes and holds us fast, without our being able to quote the words and passages whereby they do it, as a thickly leaved forest always murmurs, though not a single branch stir?—*Richter.*

In ordinary life a man who is unwatchful, wavering, unmanly and weak achieves nothing, gains neither respect nor confidence, and, if he does not become an absolute wreck, is still as nothing but a piece of driftwood floating aimlessly down the stream of life, and carried whithersoever chance currents may direct its course. Such a life accomplishes nothing for its possessor, and no man is helped or bettered by it. It may not be marked—probably it will not be—by any great crime or wickedness, but its very barrenness and uselessness are crimes, and it simply numbers the earth until its end is reached. Dangers and temptations not watched against, and therefore carelessly yielded to, must leave blots and defects, to say no more, that long years of sorrow and effort may not wholly remove and cure. Opportunities snatched, through lack of watchfulness, to pass by unheeded and unused, are not likely to occur again.—*Bishop Williams.*

## YOUNG FOLKS' COLUMN.

### Matie's Mistake.

[Written for the RURAL PRESS by Mrs. C. E. ROBINSON.]

"Matie, Matie! Where are you, child? I want you right away. Matie!" There was no response from the upper regions, toward which the voice of the anxious mother was sent. The stair door was closed with a sharp bang, and in a moment from the rear of the house I heard the same voice calling: "Matie, Matie! wherever are you?" Still no response came to the anxious call.

Now I was a privileged character and I could see through walls and my ears were sharp, and this is what I saw and heard:

A little girl with short dark hair, with snapping black eyes and very rosy cheeks, plump and round, and lips that now were pouting, sat in a corner of that sunny attic chamber to which the stairs led. Her lap was filled with bits of ribbon and lace, and a large doll lay close by her. On her finger was a tiny thimble, and pins and needles were strewn in profusion about her and on her lap. The little hands held something that looked like a doll's hat, and the child twisted herself this way and that as she critically looked at the dainty feather she was trying to fix upon it, and these were the words that came thick and fast from the pretty, pouting lips:

"I dinst sant say one word, if she do want me right away off now; all she wants is me to feed the chickens, an' I don't want to feed chickens. I want to fix dis dolly's hat—this minit, too. She hasn't one single hat that's fit to wear. I dinst sant go, vare now, Mamma Bent. Ise agoing to stay right here. Vose chickens can wait, my dolly cant!"

There was much hurrying to and fro downstairs, hasty opening and closing of doors, one more anxious call of "Matie! Matie!" Then came a roll of wheels, which the little maiden seemed not to hear, she had shut her lips so tight so as not to answer the mother's last call.

Now everything was still and Matie stitched and pinned and ripped with the little bright scissors that came from grandma in the pretty workbox by her side, then pinned and stitched and ripped again; a long time she worked before dolly's hat seemed to suit the little maid and the doll's peculiar beauty. Downstairs all was still. No mother's quick step, no rattle of pots and pans, nor opening and closing doors. Outside could be heard the "quirk, quirk" of the young turkeys and the soft "cheep" of the downy chickens, with sometimes the hurried call of the anxious mother hen to her brood, and an occasional clear crow from the proud rooster who strode about, monarch of all he surveyed. Very long for a little girl had this one sat in such earnest occupation on that dainty hat. Still, it didn't please her, but at length, perhaps oppressed by the unusually long silence, she lifted her head and drew a long sigh. "What's the reason she don't tell me adain? I dinst I'm some hungry. I'll dinst go down softly. I wonder what my ma will say zis time. Will she say, 'why Matie Bent, where have you been?' I dinst vose chickens is hungry, too!"

Very quietly little Matie slipped down the stairs. Something in the region of her stomach didn't feel good; she pressed her hand hard over it. It was so still she began to feel afraid. "Oh," she whispered, "if I only had Zonto. Ise don't bieve mamma's here." She opened the little sitting-room door; all the curtains were down. Mamma's bedroom, too, all darkened. With a big sob in her voice, the child tried to call "Mamma! O mamma, where are you?" but just then she heard something rustle in the kitchen; between her and it was a closed door. More frightened than ever Matie cried out, "O mamma!" but as the rustle continued she fled out of the house, looking over her shoulder in terror for what might be after her. Down to the barn she ran, through the chickens who flew crying to their mothers. Again and again she called, "Mother! Mother! Oh, what shall I do? My mother's gone, and I'm dest as hungry, and I can't go in vat kitchen; there is somefin there," and the hot tears poured like rain. "I wisht I'd vent when she called me now. I dinst gess she's gone to Aunt Nellie's. What shall I do?" Just then around the house flew little Tonto, the black and tan terrier, jumping and frieking about Matie, who took him in her arms. "Where is mamma an' everybody, Tonto? Where was you? What's in that kitchen? Oh, dear, and Ise so hungry, an' I dinst go there." Still hugging the little doggie as her one only friend, the child wandered around the barn to find the huggy and the bay horses gone, and not a sign, as she looked away across the fields, could she see of her father or the team, and the little girl wept and wailed until the bright black eyes were dim and the soft cheeks red. She feared to go back to the house for food, because "sumfin" was in the kitchen. She was hot and thirsty and tired, and for the first time in her life no one had answered to her call. How strange it all was, so still, only "Tonto." At length, worn out with her worry and weeping, she curled herself down at the base of a freshly made hay-stack, and with "Tonto" in her arms resolved to watch for some one coming down the road; but weeping eyes slept soon, and when the still moon came the little girl had forgotten to watch for some one coming down the road. She was wandering in dreamland,

and Tonto, ever satisfied to be in his mistress' loving arms, was still, though now and then a long ear would flip an intensive insect away and a black eye wink through the tangled mass of black and tan hair. So Matie slept, the sweet sleep of childhood, the long hours away. Papa and the hired man had unexpectedly taken dinner with a farmer neighbor whose house was nearer than home to the large field where they were working, and so the child slept on until the afternoon sun sank low, when she awoke to find herself still alone with Tonto. This time so hungry was she that she ventured to the open kitchen window, where the hanghty Tonto had torn a hole in the screen, and carefully looked in; nothing, nobody was there. Tonto gave her courage; he also was very hungry.

"Mamma, mamma," called the little girl. No answer save Tonto's bark, which seemed to say, "Come on! Who's afraid!" So very carefully she opened the kitchen door; while Tonto rushed in and ran smelling round the room, stopping only at the cupboard door, and then flew back to trembling Matie with renewed barkings. "Bow-wow! who's afraid?" he said; "meat in there for me, pie for you!" And so Matie found when at last she mustered up courage enough to open the door.

All at once there came hurrying down the road the sound of carriage wheels, while Tonto flew to meet the noise. Matie, trembling, waited till she heard her mother's voice calling "Matie, Matie." This time the little feet were not slow to respond, and, with choking sobs and a rain of tears, she threw herself into her mother's arms.

"O Mother Bent, vare have you been? I did a'most die dead, Mamma Bent."

Now Mamma Bent was crying too. Little Matie's trial had been, after all, not so great as here. She had been sent for in the greatest haste to come to her sister, whose life seemed in such peril that even a moment's delay could not be thought of, and the anxious mother, after calling Matie as we heard, dared not wait. She intended taking Matie with her, and the long day spent, in terrible anxiety, at her sister's bedside was made still harder to bear at the thought that she did not know where her darling little girl was, though she thought at noon the father would find her and comfort her. And when Matie knew her naughtiness in refusing to answer her mother's call had brought this long, lonely day upon her, she said:

"I dese, mamma, I shall always answer you next times; but if it hadn't been for 'Tonto,' I should have dest been scarved to def and be a starvin' now."

"Why," said mamma, "I thought you would go to the kitchen the first thing; so I shut 'Tonto' in there so that he wouldn't follow me, and you would find him and your lunch when you first came in."

"An' he made the noise in there ven and fraided me more; but he tared a hole in the net, he did. But, mamma, I shall always 'member to answer you the next times."

## GOOD HEALTH.

HYGIENIC BREATHING.—The many systems of physical culture now practiced unite in a recommendation of slow and deep breathing, and of a frequent practice of taking long breaths, which will force the air into all the lung cells. One physician says that six breaths a minute make a profitable average. Women especially are inclined to take many short breaths a minute, and exhaust their force in rapid and imperfect lung expansion. There exists a difference of opinion among the best authorities in regard to the best manner of breathing, some recommending abdominal and some chest breathing for women. "Breathe from the diaphragm" is a rule given by one leader of a system of physical culture. In a paper read before a woman's club in New York, a novel exercise was mentioned. It was that of drawing deep breaths and walking very rapidly at the same time. The speaker said: "I draw a deep breath, walking very rapidly when I have filled my lungs, and I do not take another until I have reached a certain point in the block. The result is exactly as if I had been running hard. My blood tingles all over me and I seem to have brought every nerve and muscle into active play." There are many "breathing exercises," one of the best of which is that of taking a deep breath and swinging the arms, first one and then the other, and finally both while the breath is inhaled. The exercises which expand the chest are among the best offered by systems of physical culture, and their practice to-day by so many women, especially in Boston, is an encouraging promise of health for the future as well as the young. *Boston Journal.*

PINEAPPLE JUICE FOR DIPHTHERIA.—"Nature has her own remedy for diphtheria," says a Chicago man. "It is nothing more nor less than pineapple juice. I declare that I have found it to be a specific. It will cure the worst case that ever mortal flesh was afflicted with. I did not discover the remedy. The colored people of the South did that. Two years ago I was engaged in lumbering in Mississippi. One of my children was down with diphtheria, and the question of his death was simply the problem of a few hours to determine. An old colored man, to whom my wife had shown some kindnesses, called at the house and, saying he

had heard of my little one's illness, urged me to try pineapple juice. The old fellow declared that in Louisiana, where he came from, he had seen it tried a million times, and that in each case it had proved effective. So I secured a pineapple and squeezed out the juice. After awhile we got some of it down the boy's throat, and in a short time he was cured. The pineapple should be thoroughly ripe. The juice is of so corrosive a nature that it will cut out the diphtheritic mucus. I tell you it is a sure cure."—*New York Tribune.*

ORANGE BLOSSOMS FOR CHILDREN'S AILMENTS.—Peter Arimond informs the *Anaheim Gazette* that a tea made from orange blossoms is a good preventive of all the ailments of children, and is also a great invigorant for older people. It is not necessary to gather the blossoms from the tree, but when the fruit sets, the ground will be found to be white with the fallen petals. These are gathered by spreading a cloth for them under the trees. The petals may be dried and preserved indefinitely, but in the green state are also efficacious in warding off disease. Mr. Arimond states that this tea will greatly alleviate or do away with the ailments and disorders usually experienced by children and save thousands of dollars in doctors' bills. It is certainly a very simple remedy and easily attainable in California, and might prove valuable. We should be pleased to hear of any good results that might be received from such use.

## DOMESTIC ECONOMY.

### Hints.

To prevent pie juice from running out in the oven, make a little opening in the upper crust and insert a little roll of brown paper perpendicularly. The steam will escape from it as from a chimney, and all the juice will be retained in the pie.

If you wish to keep pickles in your glass fruit jars, rub the insides of the metal caps with lard. The caps with oaps lined with porcelain are much to be preferred for all purposes.

About the only way in which the dried or evaporated apples can be made palatable is to stew them slowly for a long time. When thoroughly done, so there will be no lumps, pass through a colander, making a homogeneous mass about the color and thickness of apple-butter. Add the juice of a lemon, cinnamon and cloves with discretion, and sugar with a liberal hand, regardless of tariff, and by "making believe very hard," after the fashion of Dicken's "Marchioness," you have a very fair substitute for apple-butter.

When you are tired of lemon and vanilla flavoring, try mixing them. To a teaspoonful of lemon extract, add about a third of a teaspoonful of vanilla, and you will think you have discovered a new flavor.

THE USES FOR HONEY.—A correspondent in the *Iowa Homestead*, in an article on the value and uses of honey, says: The extensive use of sugar on fruit is not as bad as the cake mania that rages in so many kitchens. The fruit acids largely neutralize the indigestible and injudicious use of sugar. It is no serious thing to eat considerable saccharine food in a pure state, but not in the form of pure refined sugar. If eaten and taken in the form of honey, it at once becomes a valuable medicine and food. Instead of having it given us in this form in a mixture with bulk foods, as in the case and beet, we have it mingled with fruit juices exuded from flowers highly charged with medicinal properties in the alchemy of nature and the apothecary of the bee-hive. The advantages of honey as a medicine or food are too extensive to be considered at length here. Honey taken as a food becomes a powerful medicine to the sugar-fed and half-diseased, and many must begin on small quantities and acquire an appetite for it. Foul air, improper ventilation, coal gases, together with the sudden change and exposure of lungs and throat to zero weather or worse, in a moment, is the source of no end of throat and bronchial troubles. A free, regular and constant use of honey is probably the best medicine for throat troubles there is, and its regular use would be largely corrective here. It is always best to take our medicine and food together.

DOVER BISCUITS.—Half a pound of butter, half a pound of sugar, three-quarters of a pound of flour, two eggs, one tablespoonful of rose-water, half a teaspoonful of nutmeg. Stir the butter and sugar together. Beat the eggs light and stir into it, with the rose-water; add the spice and flour. Roll out thin and cut into small cakes.

BAKED APPLES.—Wash large, sour apples, and cut out the blossom end. Arrange them stems up in a baking dish. Dissolve half a cup of sugar in a cup of boiling water and pour over them. Cover closely, and bake in a moderate oven until tender, from one to three hours. Serve with cream.

VANILLA CUP CUSTARDS.—Pound a vanilla bean in a mortar, and stir it into three pints of milk, eight well-beaten eggs, and sugar to the taste. Fill your cups, place them in a pan of hot water, set them in the oven, and as soon as the custard is formed, take them out. They are very nice if placed on the ice, in warm weather, an hour or two before they are served.





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W. B. EWER.

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## Business Announcements.

[NEW THIS WEEK.]

Mowers and Cultivators—Truman, Hooker & Co.  
Gas Engines—Pacific Gas Engine Co.  
Gardeo Tools—O. G. Wickson & Co.  
Vanes, Scales, Trucks, Etc.—Howe Scale Co.  
"The Raisin Industry"—Gustav Eisen.  
Washing Machines—E. W. Melvin, Sacramento.  
Bags—California Bag, Tent and Awning Co.  
Insect Destroyer—Friend Medicine Co., Gresham, Neb.  
Thrashing Outfit—Souney Bros., Sacramento.  
Traction Engine and Thrashing Machine—D. M. Baldwin, Florence.

See Advertising Columns.

## The Week.

The traditional hay rain has come, but the lateness of the season makes the showers hay-makers instead of hay-destroyers. The preopulation has been quite generous in some regions, namely the coast valleys and the Sacramento valley and surroundings, and in such parts of the State will be of inestimable benefit in finishing up the hay and grain crops, which were beginning to show the need of moistening. There is naturally much good feeling in favorable regions, which can now count their crops safe—harring unforeseen accidents. Unfortunately the drier portions of the State have not fared so well, and field crops, except on irrigated lands, will not make a good showing, though the promise in fruit is abundant and the crop will bring large amounts of money.

The Presidential party is giving this week to Oregon and Washington, and the reception is enthusiastic. California's greeting to the dis-

tingnished visitors seemed to please them, and with their experience in our sister States at the north, they will be fitted to testify to the enterprise, free-heartedness and great future of the people of the Pacific Coast.

## Fatal Accidents to Farmers.

Fortunately the peaceful vocation of the farmer calls for little loss of life through accident. It is true that the industry of the farm has always called for victims to mishap, but the percentage of such sad experiences is, we imagine, small in farming as compared with many other lines of work. Still lives have always been lost and bodies maimed when the full tribute of the destroyer was not exacted. Falling trees, vicious bulls, fractious horses, were death-dealing agencies, even when farming was a simpler occupation than now. The wide application of machinery and steam-power to agriculture has increased the death rate by accident, and every year we have to record the loss of life by explosion or by remorseless mechanical motion. These experiences should always be noted, not to feed a morbid curiosity, but to serve as a warning to all to be careful and to proceed with agencies of great power or high velocity with constant watchfulness. Never allow familiarity to breed contempt or carelessness. Do this because of your own danger and of the menace to the life of others around you.

There is another class of accidents in which very simple devices become murderous, through carelessness or ignorance of the danger that may lurk in them. The daily papers one day this week contained the following items:

Thomas Denton, a young farmer, was accidentally killed to-day near his home, three miles from Stockton. He was riding in a buggy with his brother, returning from a neighbor's farm, where they had been sharpening scythes. They had the scythes with them in the buggy, and while driving along a levee the horse shied, overturning the vehicle. Edward Denton was not hurt, but Thomas fell upon one of the scythes, which entered his thigh, severing the femoral artery and entering the abdominal cavity. The flow of blood could not be stopped, and he bled to death before a physician reached him from Stockton. The deceased was a native of England, 29 years of age.

John Davey was instantly killed near Placerville while spraying his trees. The air chamber of a Bean pump burst and struck him on the head. The pump was thrown a distance of 60 feet.

The first of these accidents may belong to the unforeseen class. Scythes have been carried in buggies from time immemorial, and probably always will be, and yet to know of the cause of this young man's death may be a warning to so load the dangerous implement that danger may be reduced.

The fatal explosion of the air chamber of a spray pump is a most lamentable occurrence, but it comes none too soon to warn manufacturers that they must modify their patterns or materials. A large air chamber with a pump of great force is naturally a constant source of danger. The principles employed in these pumps are invaluable and their operation is exceedingly satisfactory. With proper caution not to run the pressure higher than the point on the gauge which is safe, the pumps can be used with no fear; but carelessness in not noticing the gauge, or the clogging of the same from any cause, may, as in the case at Placerville, cost the operator his life. We know of another case in which the large air chamber of a spray pump was overbarged and explosion was prevented by the blowing out of the gauge where its pipe was tapped into the air chamber. The gauge and its attachments were blown clean through the roof of the shed in which the trial was being made. Contact with it would have killed.

We must have a better understanding of these force agencies. They must be more strongly made or more thorough notice given of the danger in the careless use of them. We mourn for the victims, but such mourning should always be attended by the learning of lessons which should never be forgotten.

**FRESNO RAISIN EXCHANGE.**—At a large meeting of raisin producers held in Fresno, last week, it was decided to organize a raisin exchange, and a committee of 15 was appointed to prepare for organization. The plan is to form a large co-operative packing association, with branch packing-houses all over the county. It is desired to get all the growers of raisins and dried grapes to become members, if pos-

sible, in order to control the raisin pack, etc., and divide the proceeds and profits pro rata among the producers properly united. Such action, it is claimed, is necessary to maintain this great and growing industry on a sound and prosperous basis. All those desirous of learning more of the particulars with the intention of throwing their influence with the movement, are invited to attend the next meeting, to be held at De Witt's hall, on I street, Fresno City, on Monday, May 11th, at 2 P. M. We commend the movement to our Fresno county subscribers. They should attend and participate in the shaping of the enterprise.

## Scarcity of Cattle.

The shrinkage of the live-stock supplies east of the Rocky mountains, to which we have frequently alluded, is becoming more and more clearly apparent. Beef cattle are said to be selling at higher prices than have been realized for five years. The following from the Sioux City Journal gives interesting items concerning the situation and the conditions governing it:

The receipts of cattle at the stock yards for the first part of the year have been almost a half less than they were for a corresponding period last year. The reasons for this decided falling off are numerous. One is, that the rapid advance in prices has caused the owners of stock to hold the stock cattle to feed themselves. Then in Dakota and Nebraska, cattle cannot fatten altogether on the native grasses. In Montana, grass-fed cattle can be taken off the ranch, rolling with fat and sent direct to the butchers. The high price of corn has, as a consequence, caused thousands of cattle to be sent from those States, the very ones which furnish the Sioux City markets to Montana, to be fed on the ranges. Stockmen report trainload after trainload of stuff moving to Montana over the Great Northern and Northern Pacific roads, to be fed and returned to the butchers in the fall. They report that but very little of the stuff is changing hands, and most of it will be fed in Montana by the owners before it is shipped.

Another cause is that the Government has advertised for contracts to furnish the Indians with between 40,000 and 50,000 head of cattle. The specifications require that the cattle must be all domestic stock. This practically shuts out Texas cattle and leaves the Northwest to fill the contracts. Stockmen say that the ranchmen are bidding on the contracts, and as a consequence are holding back large quantities of stock in case they should be awarded them. The cattle advertised for are as many as have been received in Sioux City since Jan. 1st. This cuts a big hole in the cattle supply of the Northwest.

Hundreds of cattle this year will be fed on grass until the new corn crop comes in. Corn, it is expected, will be cheaper then, and the cattle will be finished up on it in the fall preparatory to marketing.

While it is thought generally that there will be as many cattle on grass as ever before, not half so many stock cattle will go to market, although as many of them are being taken as are offered for sale. Most of the stock is being held by the original owners because of the excellent prospects for profit. It is predicted that next year's cattle run will be large and of good quality.

Though some of these statements have a local bearing, their drift is to show the reduced cattle supply and the likelihood of maintenance of values for some time at least. Such a state of affairs has an influence upon our coast, and will no doubt result in an effort to restock ranges which have run light during the period of depression and low values.

## A Righteous Payment.

There has been a decision rendered in a court trial of issues arising in a wheat corner which should be proclaimed upon the housetops. It cannot be too often and emphatically remarked in the public ear that grain gambling and food cornering is impious and should be criminal. Continual enforcement of this idea will ultimately form public opinion which will enforce measures to do away with the nefarious business. We are glad to see that the courts are speaking out in no mistakeable terms.

It is telegraphed from Chicago that Judge Waterman has rendered a decision in the Appellate Court reversing the decision of a lower court by which the commission firm of Foss, Strong & Co. recovered judgment for moneys advanced and services rendered in attempting to run a corn corner.

It was understood that this movement would force up the price of corn. William Foss of the firm of Foss, Strong & Co., agreed that his firm would advance all the money necessary to buy all the cash corn that might be delivered and May options. Foss said there would be no trouble in running the corner, as his firm

had 150 customers in Iowa, who had corn in cribs, and he could control them. There was some mishap about the affair somewhere, and the men who put in the money called upon the courts to help them get it back again. The lower court complied, but Judge Waterman turns over its position, and in doing so, writes the following memorable paragraph:

"This was clearly a combination to enhance the price of corn. It was not made to purchase corn merely, but to prevent the free selling of the same. They were to control the price of a staple commodity—one of the prime necessities of life. It is a manifest attempt in the present case to create an artificial scarcity, and to compel those whose necessities compelled them to buy, to pay, not the price determined by the entire freedom of buyers and sellers, but a price to which their combination might be able to force the market. This is purely against public policy, and under the common law, as it existed a century and a half ago, would have been a criminal offense. The law will not attempt to adjust the differences which arise out of the transactions which it condemns. It will leave the parties where their own conduct leaves them. It will not compel them to divide the plunder, or share the loss of unlawful enterprise. Neither will it require them to remunerate those who, with full cognizance of the character of such an undertaking, assist them with money or service."

This is a righteous judgment and will stand firm. It is a reiteration of the old scriptural doctrine that those who take the sword must perish by the sword. The courts do not propose to serve unscrupulous people in aiding them to recover money which they embark in enterprises which are against the public weal.

It is a notable remark of the judge that under the old common law the offense would be criminal. It is time we returned to the wisdom of the fathers. We are trying to do this, and undoubtedly the statute will be ere long recorded which will embody the wisdom and provide for the public safety which the old common law insured. Truly there is progress being made in this matter.

## Gum in Ramie Fiber.

The recent discussions of ramie-growing and fiber extraction have had allusions to the gum in the fiber as it is removed from the stem of the plant and the necessity of its removal. There has been inquiry as to the proportions of raw fiber to stem, of ungummed fiber to raw fiber, etc., in California grown and treated samples of ramie. Some assays of ramie have recently been made at the Experiment Station laboratory in Berkeley, concerning which we have secured from Prof. Hilgard the following preliminary facts, which will no doubt be presented in more formal shape in some future Station publication.

The samples of ramie used in the investigation were (1) raw fiber decorticated by machine during the last Mechanics' Fair in this city; (2) a sample worked by hand for comparison at the University. The following are outline results of the assays:

Machine-made fiber from S. F. contained:	
Moisture (dried at 100° C.).....	12.00 %
Gum.....	34.00 "
Ramie air dried and worked in Berkeley by hand:	
Moisture (dried at 100° C.).....	11.17 %
Whole bark.....	21.20 "
Fiber (raw with gum).....	15.90 "
Fiber (pure without gum).....	11.00 "
Whole bark (air dried) contained:	
Cuticle.....	25.00 "
Decorticated fiber.....	75.00 "
Gum (contained in above).....	41.50 "
Fiber decorticated by hand:	
Contained gum.....	30.80 "

The above data show that the estimate heretofore made of 15 per cent of raw fiber from the dry stalks is a conservative one; and the fact that the percentage of moisture in the stalks and in the raw fiber is practically the same, shows that the same ratio will hold out in the drier air of the interior of the State, although, of course, both stalk and fiber will weigh several per cent less in absolute measure.

It is also seen that about 79 per cent of the entire stalk is recovered in the form of trash, available for return to the soil; to which will be added five or six per cent of offal, consisting of the outer skin (cuticle) of the bark and of gum mechanically detached in the process of decortication. The value of this offal as a return to the soil is now being investigated.

The two last columns give a good idea of the large proportion of gum contained in the outer coat of the stalk, being nearly 42 per cent in the "whole bark," and from 30 to 35 per cent in the "decorticated" fiber. The smaller percentage found in the sample treated at the University is doubtless due to the raw fiber having been worked (by hand) in the driest condition possible, while the machine worked in the damp air of San Francisco, renders the gum less brittle and therefore detaches less of it than will be the case in the dry air of the San Joaquin valley.



## Peach-Tree Borers.

[By ALEXANDER CRAW, Quarantine Officer and Executive Entomologist of the State Board of Horticulture.]

**Intodnotory.**—For several seasons great quantities of peach and other deciduous fruit trees have been imported into California from the Eastern States, and as the Eastern peach tree borer (*Ageria exilis*, Say) is very widely distributed over that portion of the Union, and in order that fruit-growers may be able to detect the California or the Eastern species, and protect their trees against the attacks of borers, this bulletin is issued.

This season, 1890-91, I made a careful inspection of nearly all the large lots received, and in some of them found the larva of the *Ageria*. As soon as I discovered that the trees were infested with borers, I addressed letters to the Boards of Horticultural Commissioners of the various counties in the State, calling their attention to the danger. Notice was served upon the owners to disinfect the trees by immersion in strong and hot solution of whale-oil soap. It was soon observed that where the borer was protected by the gummy exudation some of them escaped. The trees were then carefully inspected, and every tree with indication of borers was rejected and destroyed by burning. This is the most certain remedy for such stock, still the dipping into the whale-oil soap solution should be enforced in every case, as it will be death to any other pests upon the trees.

The perfect insects resemble wasps or ichneumon flies, more than moths, and fly in the daytime.

**DESCRIPTION.—Female (Fig. 1).**—Body is of a glossy steel-blue color, with a purplish reflection, and a broad band of orange-yellow across the abdomen. The fore wings are opaque, and similar in color to the body; their tips and fringes have a purplish tint, both above and beneath. The posterior wings are transparent and margined with steel blue; wing expanse, nearly an inch and a half.

**Male (Fig. 2)** is smaller and more slender than the female. The thorax is marked with yellow, and the abdomen has two bands of the same color on the upper side. Unlike the female, all the wings are transparent; fringe, steel blue. It also differs in having the antennae fringed with very short hairs. Legs have yellow markings.

**Larva (Fig. 3)**, when full grown, measures nearly an inch in length; it is a soft whitish-yellow grub, with dark-brown head and jaws; upper part of first segment is horny, and a deeper yellow than the balance of the body. It has three pairs of short, spine-like legs. The five pairs of hind fleshy pro-legs are yellow, each margined with a fringe of very minute reddish-brown hooks. Over the body are scattered a number of very short, reddish-brown hairs.

**Habit.**—The habits of this species are similar to the California peach-tree borer.

## The California Peach Borer.

**DESCRIPTION.—Female (Fig. 4)** differs from the Eastern species in not having any yellow markings upon the abdomen. The head and eyes are jet black; thorax and abdomen are bluish-black, with a slight bronze tint; edges of abdominal segments are marked with light blue; fore wings are black, opaque, and, in certain light, have a beautiful greenish luster; tips are fringed; posterior wings transparent, with six black veins, narrow margin of black, and lower edge with purple fringe; antennae and legs black.

**Male (Fig. 5).**—Head, eyes, thorax, and abdomen bluish black; forewings transparent, with a black blotch across the veins; extremity of wing black, with purple fringe; posterior wings transparent, with narrow black border; lower edge of wing furnished with purple fringe. Antennae black, and upon the inner edge are two rows of very minute hairs; legs black, with light yellow hairs at the joints between the femur and tarsus. Expanse of wings one and one-quarter inch.

**Habit.**—The female moth deposits her eggs on the bark, generally near the surface of the ground. The larvæ, soon after hatched, burrow into the bark and work downward, and as they increase in size penetrate deeper, devouring the inner bark and sapwood, causing the tree to exude gum. This species has more of a tendency to work vertically, still where the borers are present in numbers the death of the tree is certain. I have recently examined apricot and peach trees where the entire bark around the collar was destroyed by this species.

**Larva (Fig. 6).**—A soft, pale yellow cylindrical grub, resembling somewhat a full grown apple worm (*Carpocapsa pomonella*); head dark brown; first and last segments are darker than the balance; it has sixteen legs—six horny, and ten fleshy or membranous ones; very few short hairs upon the body.

**Pupa.**—When the larvæ are fully developed they crawl upward and near the surface they construct a pupa case with their castings and gum. In California they reach this stage of their existence in April, May and June, remaining in this condition three to four weeks. The pupa is brown, and when about to change to the moth, it forces itself through the end of the cocoon (Fig. 7), from which the moth afterward issues.

## How to Find the Grubs.

Peach-growers should make a careful examination of their trees in the spring, by removing the soil a few inches deep around the trunk, brush the stem, and if any part shows an ex-

cess of moisture or gum, it is a sure indication of the presence of borers, unless the tree has been injured in cultivating. Carefully remove the bark on the suspected part, and cut in the direction of the burrow until the larva is found. Hot water has been recommended by some, and others use a thin flexible wire, with which they probe the wound; but the most certain and satisfactory way is the knife. After the borer has been found and destroyed, cover the part with moist soil; or where the injured surface is large and the sapwood cut away, allow the wood to dry and apply two coats of rubber paint; afterward cover with clean sand. This treatment will keep the wood sound and healthy until the bark again covers the part.

## Preventive Measures.

Nearly all our warfare against insect pests has been carried on after they attack the tree, but with this one we have the means of preventing, to a great extent, any very serious damage. They prefer the moist, cool bark near the surface of the ground, and as this is the most vital part of the tree, it can be so protected that it will be impossible for the moth to reach it. The old system of banking the soil against the tree to the height of 8 or 12 inches has been found of great benefit in preventing the borer from reaching the roots, if the banks are formed in May—before the moths deposit their eggs—and kept in position until winter. This will not prevent their attacks, but when the soil is removed they can be reached to better advantage. In our dry climate the placing of a small conical bank of soil against the trunk has no injurious effect, provided it be removed before heavy winter rains. The trees can then be examined and the borers destroyed before they have done any serious damage. If by the action of the wind the soil parts from the tree, fill up the intervening space with dry soil or sand, so that the moths cannot deposit their eggs lower than the top of the mound. The placing of dry sand or ashes on a level with the surface of the soil helps to some extent to repel the moths; but when the young

FIG. 1.



FIG. 2.



FIG. 3.

EASTERN PEACH TREE BORER.—*Ageria exilis*, Say.

FIG. 4.



FIG. 5.



FIG. 7.

FIG. 6.

CALIFORNIA PEACH TREE BORER.—*Sannania pacifica*, Riley.

batch, they cut through the bark, away from the ashes, and reach a place among the roots, where it is a difficult matter to destroy them.

Another way is to remove one or two inches of the soil and wrap the tree with a band of stout paper six or eight inches wide, tie the upper edge with twine or stranded haling rope, and cover the lower edge with soil; straight straw or tule will answer the same purpose. Strips of galvanized wire screen, the same as used for windows or doors, cut in widths of six or eight inches, are also recommended. This protector is held in position by removing a little of the soil a few inches from the trunk of the tree, so as to prevent the wire coming in contact with the bark, unless at the upper edge; fasten the top with a strand of wire or tie with twine, and place the soil against the lower edge. This is more expensive, but it will last for years. It also has the additional advantage that you can see if any borers are at work without having to remove the protector.

## Notes.

Trees budded upon almond, cherries upon Mazzard, and apricots and prunes budded upon peach stocks, should be examined, as they are also subject to their attacks. The female moth (of both species) prefers to deposit her eggs near the ground, but occasionally a borer is found in the trunk or branch, especially in the orotob.

The use of carbolic acid, mixed with other solutions or substances, as a repellent, should be avoided. Borers of various sizes will sometimes be found in the same orchard and even in the same tree. This is owing to moths developing and depositing their eggs later than others, for it takes nearly one year from the egg to imago, and on this account an inspection should be made of the trees in infested orchards in the fall, and all larvæ destroyed, which will save the tree from further depredation through the winter.

**A NOVEL INCUBATOR.**—D. G. Pitner has now 6000 eggs hatching in his hop-kiln, which he is using as an immense incubator. He is adding more eggs every day, and expects to have 8000 in before the kiln is full. Everything has gone on nicely so far, and the indications are that this novel hatching project will be a success.—*Sutter Independent*.

## State Horticultural Society.

The April meeting of the State Horticultural Society was held on the 24th at the hall of the State Board of Horticulture. A. L. Bancroft presided until the arrival of President Hilgard. Statements were made by many members concerning the fruit prospects in the regions in which they resided.

Judge Blackwood of Haywards reported many cherries blasted and many plums and prunes dropping badly. His apricot orchard never promised better.

W. W. Smith of Vacaville stated that the fruit outlook all around in his region was never better. The cherries promised better than for the last five years, but the crop was coming in rather late. Apricots looked well; even Moor-parks were doing well this year. Bartlett pears were being contracted for at \$1 per box for Eastern shipment.

J. L. Mosher of San Jose reported the outlook good for all kinds of fruits, so far as his information went.

Judge Stabler reported from the Sacramento valley, from Sacramento to Chico, that apricots were only fair, but peaches promised exceedingly well. Prunes and pears are also a good crop. He had heard of 2½¢ being offered for cling peaches for canning and 2¢ for free-stones.

Howard Overacker Jr. of Centerville reported apricots a full crop; peaches fair. Other fruits were not far enough advanced to warrant judgment.

Mr. Coates and other speakers thought it rather early to speak definitely. Early indications are for a good demand and buyers abundant and ready to make contracts.

## Cultivator or Plow.

Mr. Bancroft stated that his experience during the last winter was in favor of using the disc harrow followed by a duck-foot cultivator instead of plowing. With these tools he calculated he got his orchard into good condition with one-half the horse-power needed for plowing. He cultivates to a depth of eight

mixed lot of California dried plums shipped East in sacks, and in Philadelphia it was packed in boxes with a fancy brand.

Prof. Hilgard was requested to address the society at its next meeting upon "Weeds and Their Repression."

The society adjourned early to attend the meeting of the

## Entomological Society.

At which President Ehrhorn presided. There was a good attendance. Mr. Ehrhorn read an interesting paper on the parasites of the San Jose scale, which is printed elsewhere in this issue. Mr. C. C. Rledy gave an excellent demonstration of mounted insects with five microscopes. Several new members were elected and the society enters upon the promise of a successful career.

## AGRICULTURAL NOTES.

## CALIFORNIA.

## Butte.

**FRUIT VS. MINING LANDS.**—*Register*, May 1: John M. Ward and Chas. St. Sure own 92 acres which 30 years ago was a mining camp. Of this they have cleared, leveled and planted 45 acres. They are steadily working at the remaining 45 and intend to keep on planting until the whole tract is in an orchard. They have 2,500 peach trees in bearing this season and Mr. Ward estimates the crop at 100 tons of fruit. The two gentlemen who own this land have recently added 90 additional acres and expect in time to clear, level and cultivate it. All of it has been used in the past for mining land and it will cost fully forty dollars an acre to put it into condition to use.

**GRAIN CROPS AT MOORE'S STATION.**—*Cor. Oroville Register*, May 1: The Danville estate, Wm. M. Pierce, manager, has about 600 acres sown to wheat and 200 to barley; Arthur Switzer, 400 acres wheat and barley; N. F. Wood, 200 acres wheat and barley; L. H. Phillips, 300 acres wheat and barley; Crum & Welch, 400 acres barley; Thos. Gaffney, 320 acres wheat; Mrs. Gould, 750 acres barley; John Keitle, 160 acres wheat and barley; Geanilla Bros., 1,100 acres wheat and 200 acres barley; Jabez Upham, 60 acres barley; Greeley & Smith, 1,000 acres wheat and barley; J. J. Crum, 80 acres barley; C. Welch, 60 acres barley; D. Ahhey, 400 acres wheat and 50 acres barley. There is considerable summer fallowing being done.

## Fresno.

**REPLACING SUMMER-FALLOW LAND.**—*Expositor*: Mr. Reed, Mr. Matthews and others in the vicinity of Reedley are replowing their summer-fallow land. They all say it pays well to plow the second time, and I should judge it does to see some of the summer-fallow wheat in this section of country this year. We have wheat here five feet high on summer-fallow land, and good judges say it will go 12 or 14 sacks to the acre if no accident befalls it.

## Humboldt.

**A NEW COMPANY IN HUMBOLDT.**—*Western Watchman*: The Grizzly Bluff creamery is being erected upon plans and under the supervision of R. A. Simpson, of Ferndale, who has been making a special study of creamery processes and arrangements. This creamery will be somewhat of a new departure from the others now in operation in this county, as it will be fitted with a butter extractor, the only one that has been set up in the county or on the Pacific Coast. The butter extractor separates the cream and makes the butter at one operation, which it is claimed has many advantages over any other process, in saving of labor and purity of the article produced. This machine is so constructed that it can be used as a simple separator by changing the interior arrangements. Slowly but surely the creamery system is supplanting the old pan process.

## Kern.

**TROUT BREEDING FOR MARKET.**—*Bakersfield Californian*: L. M. Underwood, who lives near Glennville, will sell his stock and make an artificial lake his ranch, when he will undertake the enterprise of raising trout for market. With comparatively little cost he can build a dam across a deep canyon, where he will have a lake fed by clear and cool mountain streams, admirably adapted for trout culture.

**A LARGE WOOL CLIP.**—*Bakersfield Californian*, April 28: Malo & Nunez have shipped the last wool from their sheep-shearing camp at Pampa. In all about 66,000 sheep were shorn, and as a product 45 carloads, containing 1800 bales, or almost 720,000 pounds of wool were shipped. This makes a clip averaging pretty nearly 11 pounds per fleece.

**SHEEP PROFIT.**—*Bakersfield*, April 28: One sheepman, who sold his flocks to Henry Miller about a week ago for the sum of \$27,000, was heard to say that he only paid \$600 for feed last year.

**A BAKERSFIELD VINEYARD.**—*Echo*, April 30: J. E. Smith has 35 acres of one and two-year-old vines with scarcely a single vine missing, and 20 acres more that was planted this year that look well; he has orange trees two years from the nursery that contain a large number of blossoms and some fruit just setting on the trees; he has two-year-old fig trees which at this date hang full of figs as large as eggs. All of this has been accomplished by perseverance and pump irrigation. The water for all this orchard and vineyard is raised from two wells with 5-inch sock pumps operated by

## Frauds in Fruit Trade.

Prof. C. H. Allen of San Jose, by invitation, gave his observation on the sales of fruit under wild-cat brands at the East. He showed that such trade is injuring our Eastern market, and thought there should be some authoritative information given to the Eastern consumers concerning legitimate California fruit grades, labels, etc. He thought this should be done to a certain extent at least by the compilation of a cheap pamphlet emanating from some authoritative source explaining known brands, grades, etc., and that possibly an association of producers to agree upon standard grades and brands would do a good work. He described at length his experience with the so-called "Spanish prunes" at the East. Mr. Rowley stated that he had traced that fruit. It was a



horse-powers employing one or two horses each. The two-year-old vines and a large percent of those planted last year hang full of grapes and give every promise at this date of yielding a remunerative harvest; experienced raisin growers place the crop on the older vines at \$50 per acre this year.

#### Los Angeles

**A NEW PARASITE DISCOVERED.**—L. A. *Express*, April 29: Mathew Glesser brought to this city yesterday a new parasite in the shape of a small gray beetle, that has attacked the leaves of his apricot trees, and threatens to be an unwelcome visitor. John Barr, Horticultural Commissioner from Fernando, and Mr. Washburn of Rosamond, took specimens of this vicious little stranger to Prof. D. W. Coquillette of the U. S. Department of Agriculture for his inspection. Prof. Coquillette had, last week, found at Indio one of these parasites on a wild shrub, and had secured him for further investigation. His recommendation is that of a paris green wash composed of one pound of paris green to 180 gallons of water made into an emulsion with three pounds of soap and used as a wash. Mr. Glesser is of the opinion this little stranger will not prolong his stay after his trees get a little further along, or his soil has been more thoroughly domesticated by cultivation. Mr. Glesser will also send specimens to Prof. Alexander Craw, State quarantine officer of the State Board of Horticulture, and do all in his power to make his parasitical majesty's visit as sultry and sulphurous as possible.

**GARDEN TRUCK FOR THE EAST.**—L. A. *Express*, April 28: Glendora is shipping three or four tons of tomatoes East daily. They go by express to Kansas City or Chicago, packed in 20-pound boxes, and net the growers nine cents per pound. The second carload of green peas for the season went East from Glendora a few days ago.

**TREE PLANTING AT LONG BEACH.**—*Breaker*: Many additional acres were planted with trees this spring. Mr. Stovell put out several acres in walnuts, apples, etc. Mr. Butler planted 60 acres in figs, peaches, apples and oranges and is now starting in to bud about 20,000 Washington Navel and 5000 lemons. One lemon tree bore 120 pounds of fruit this past year, which, considering it is only three years from the bud, is a good crop.

**FRUIT TREE PRODUCT AT PASADENA.**—*Cyrus Wright in Star*: I raised last year from a small ranch: Of apricots from 200 to 300 pounds to the tree; peaches from 200 to 300 pounds to the tree; apples from 200 to 300 pounds to the tree; Green Gage plums from 200 to 300 pounds to the tree. All the above trees were six years old and no irrigation. The trees were eighteen feet apart or a little over 100 to the acre.

**PROPOSED LARGEST PRUNE ORCHARD IN THE WORLD.**—*Santa Maria Times*: Thomas A. Garey, of Garey nurseries in this valley, is negotiating with Los Angeles capitalists for the planting of 1,000 acres to "Tragedy Prunes" during the season of 1891-2. This will be the largest prune orchard in the world.

#### Merced.

**CONTRACTING NEXT SEASON WHEAT AT MERCED.**—*Star*: Several farmers have sold a portion of their coming crop at \$1.40 per cental and upward. Contracts are made between the seller and the buyer by which the former agrees to deliver to the latter so many hundred tons of the wheat he produces. That is to say, he does not agree that it shall be No. 1, but if any such is grown on the farm of the farmer then he must furnish it. Advances are made on these contracts. As a rule, selling wheat which is not already in hand is a dangerous thing, but those who have sold under the contracts described above consider themselves perfectly safe.

#### Napa.

**PROLIFIC OATS.**—*Register*, May 1: J. H. Jordan is farming a 100 acre tract of land northeast of town. He brought into our office yesterday a stool of growing oats pulled from one of his fields, which contained 61 stalks. The stalks are nearly six feet high. It is a fair estimate to say that each stalk carries 40 oats, which would make for the whole stool 2440. All this from one seed!

#### Nevada.

**PROGRESSIVE FARMING IN GRASS VALLEY.**—*Tidings*, May 1: About three years ago, when citizen Wm. Loutzenheiser abandoned the drug business after a experience of over 30 years in this city to become an honest Granger in the outskirts, he among other experiments gave the much-talked-of forage plant "Euphorbia" a trial. The experiment attracted much attention for a time. After awhile interest in Mr. Loutzenheiser's experiment died out, as it proved a failure flat and complete had been the result. Mr. Loutzenheiser now pins his faith to alfalfa and is content to harvest four crops a year of that meat-building product. In this he is coincided with by all of our progressive farmers, a fact to which the ever-increasing acreage of alfalfa bears witness. Among other of his experiments is the French prune, which, while not a failure, is not a pronounced success at this altitude, the fruit not maturing early enough to permit of its proper curing. At lower altitudes in the county—down where our oranges attain perfection—this objection will not stand. On the Loutzenheiser place are 3500 vines and 7000 cuttings have recently been set out. These cuttings are from the vines from which the Santerne is made, this wine comprising the juices of various varieties of grapes in varying proportions. The Loutzenheiser orchard embraces 900 trees. This

week the work of setting out a nursery comprising 2000 seedling pear trees was completed. In due time these will be grafted and transplanted.

#### Orange.

**SWARMING BEES IN A HAT.**—*Santa Ana Blade*: A swarm of bees made the locality of Fourth and Main streets exceedingly lively, when an elderly gentleman, with an eye to business, stood in the street in their midst, and by dint of perseverance, managed to persuade the queen to take up quarters on his hat. In a short time he was covered a dozen deep with bees, and with them he departed for home.

#### Placer.

**ARRANGING FOR FARMERS' INSTITUTE.**—*Auburn Republican*, April 9: At the last meeting of the Horticultural Society, a committee was appointed to arrange for the organization of a Farmers' Institute in connection with the Horticultural Society. This will include farmers of all kinds and be entirely free to everyone. All who wish to make farming a profession as well as a business will certainly take advantage of this Institute. At the next special meeting essays will be read and agricultural topics discussed. Prof. Wickson is expected to be present to organize the Institute and deliver lectures.

**CROPS IN PLACER Co.**—*Auburn*, April 29: Fruit of every kind promises well. Did not bloom till very late owing to cold and backward spring—latest known for many years. Owing to same cause, gardens are very late, many just planting seeds, and the hay crop will be quite short, possibly three-fourths of average. Springs and rivulets as low as usual six weeks later. Trees will make a less growth than usual, but the fruit crop holds fair to make up for all deficiencies.—W.

#### San Benito.

**WIRE VS. ROPE FOR BALING.**—*Hollister Free Lance*: About 150 farmers of this section have obligated themselves to use wire instead of rope for baling purposes. They hold that the cost with wire is but 40 cents or eight pounds per ton at 4½ cents cash, or five cents on time. It requires 6½ pounds of rope at a cost of 13 cents per pound or 85 cents per ton, leaving a balance of 45 cents in favor of wire.

#### San Bernardino.

**SUGAR BEET CROP PROSPECTS.**—*Chino Champion*, May 1: There are over 1700 acres planted to sugar beets on the Chino ranch, and planting will continue all this month and into June. About 2500 acres of Chino land have been rented for beets, and renting is still going on, and, making due allowance for partial failures here and there, there will be at least 2500 of a full stand. Thus far the crop promises to exceed the most enthusiastic expectations. The plants can now be seen on hundreds of acres from the point of just peeping through the ground to the husky tops which almost cover the surface, with slender, perfectly shaped roots two feet long. The porous, friable character of the soil encourages the natural tendency of the root to strike deep. These beet fields lie over the country from Euclid avenue, about two and a half miles southeast of this town, to the northwest line of the ranch on the borders of Pomona—say over five miles. It is a cheering sight to look over the fields and see hundreds of laborers hoeing and thinning beets. Several hundred acres are already thinned and hoed, and the long green rows only 15 to 18 inches apart are quite picturesque. The same hopeful reports come from the crops at Ontario and El Monte, where at least 300 acres are already planted—over 200 at Ontario. A considerable acreage is planted at or near Downey, Florence and Tropic, in Los Angeles county. In one form and another, this industry this year requires the labor of near a thousand people in the field and in and about the factory.

**ORANGE PLANTING—RIVERSIDE.**—The planting season has opened in this valley, and between this time and June 30th, 4500 acres of new land will be set out to orange trees on Arlington Heights. Of the property of the English syndicate 1800 acres will be improved.

**ORANGE SEED PLANTING.**—*Ontario*, April 30: It is estimated that 3,000,000 orange seeds have been planted out in seed beds in Ontario and Chonawonga this spring, and the quantity of seeds planted in this (San Bernardino) county will be enough, three or four years hence, to plant 1,000,000 acres of orange grove. There will be no lack of trees then, which has been the principal hindrance to a larger acreage being set to oranges in Ontario the past two seasons.

#### San Diego.

**HISTORY OF THE SICILY LEMON IN CALIFORNIA.**—*San Diego*, April 26: The fruit sent to the Presidential car for Mrs. Harrison by the Ladies' Annex was accompanied by an explanatory letter from the committee, of which Mrs. Jennie Whiteley Snyder was chairman, from which we excerpt. This box of raisin clusters comes from the famed El Cajon valley, 15 miles distant in our back country. The lemons you will find unlike any other known, and it is anticipated that the Bonnie Brae will in a few years make the same representation for this county that the renowned Navel orange has for San Gabriel valley. It was about 16 years ago that H. M. Higgins planted the seed of Sicily lemons received from Messina. This was at his Bonnie Brae ranch, red tableland or mesa, in the Sweetwater valley, some ten miles southeast of San Diego. The result was one tree, and its subsequent fruiting introduced a lemon in shape, quality and texture heretofore unknown.

It was generally seedless, and became a prolific bearer. From it more trees were budded; and from this unique orchard, numbering now about 100 bearing trees, buds have been sent over the county, and the fruit introduced to market. This year the first overland transportation was made, and the analysis received from New York City proves that the Bonnie Brae lemon has three times the acidity of any of its competitors.

**THE UMBRELLA TREE.**—*San Jacinto Register*, April 30: The graceful umbrella tree, which ornaments so many front lawns about town, is one of the most beautifully symmetrical trees grown in this semi-tropical climate. As its name would imply, it is carefully trimmed into the shape of a huge umbrella, and serves the purpose much better than the last-named article, its dark, heavy foliage forming a complete shade all summer from an often too fervent sun. For ornament and use the umbrella tree is unequalled, and seems particularly adapted to California soil.

**A TEN-MILLION-DOLLAR IRRIGATION ENTERPRISE.**—*Los Angeles*, April 28: Articles of incorporation have been filed of the Lake Elsinore Reservoir Co. The object proposed is to tap this lake at its lowest depth, about 50 feet below the surface, and conduct the waters on to the adjacent lands in Los Angeles, San Bernardino and San Diego counties. This can easily be done, as the lake lies at an elevation of 1300 feet above the sea, and as compared with Riverside, 900 feet elevation. A vast domain is thus under the control of this scheme. The capital stock is \$10,000,000.

#### San Joaquin.

**RAMIE CULTURE.**—*Stockton Mail*, May 1: R. R. Smith of this city is planting two and a half acres of his land north of town to ramie for the purpose of raising roots with which to plant about a hundred acres next year.

#### San Luis Obispo.

**FINE CROP PROSPECTS.**—*Arroyo Grande Herald*, May 1: Last week we made an excursion to Santa Maria, returning by the way of Guadalupe, Oso Flaco and the sand hills. The crops all along the roads looked fine, but in the Sand Hill region and around Black Lake they are the finest we ever saw. Good judges estimate the yield of barley in that region at from 20 to 30 sacks to the acre. Mr. Fowler has about a hundred acres that will tax his team to haul off before the rains set in. The grain is all four to five feet high and nicely headed out.

**WHEAT CROP YIELD.**—*Eastern San Luis Cor. Tribune*, May 1: Never in the history of our county has the agricultural outlook been one-half so promising as it is at present. Thousands of acres hitherto untilled, and in the rheumy eye of the hairy-toothed Silurian regarded as untillable, have under the magic force of mind controlled by muscle been changed from barren and unprofitable pastures, of which at the best 12 acres are hardly sufficient to fatten a steer, into smiling wheatfields and fruitful orchards. Mr. Brown tells us that not less than 150,000 centals of wheat will be hauled this year across the Cholame creek. Upon the Californian rancho between five and six thousand acres of grain are now heading out, and the yield for the season, according to Mr. Albert Rosellip, will be 15 centals per acre at least.

**GRAIN CROP PROSPECTS AT STARKLEY.**—*The Moon*: Wheat is growing splendidly and the plant is getting taller and bigger. D. B. Shaw has a field in full bloom. There is a world of grain growing up the San Juan and Cholame. Nothing to be compared to the present crop was ever seen here before.

#### Solano.

**CEREAL CROP PROSPECTS.**—*EDITORS PRESS*: The grain prospect in this vicinity is not more than an average, with chances of being under. Wheat late, and foul of oats, chess, grass and weeds, probably the result of the excessive rains of last year. Barley acreage about an average, and the prospective yield later than that of wheat. I think we need another rain or much cool south wind or both, to insure a fair grain yield.—Wm. H. Fry, *Elmira*, May 1.

#### Sonoma.

**SONOMA CO. CROPS.**—*Sonoma*, April 24: The weather during the past week has been quite warm, and in consequence crops of all kinds are making rapid growth. The yield of fruit of all kinds promises to be exceptionally heavy, while hay and grain never looked better at this season of the year. Pears, including Bartlett's, Beurre, Glargo, Dearhorn, Seedling and Winter Nellie, which showed a tendency to pear blight about a week ago, are being sprayed in this valley with good results. This not only checks the fungoid growth, but destroys the red spider, codlin moth and San Jose scale, which at this time are making another deposit of eggs.

#### Sutter.

**FOUL LANDS AND COMBINE HARVESTER.**—*Farmer*, May 1: We hear it stated that in No. 70 a considerable portion of the grain fields are very foul. The condition of the lands is attributed to the use of the combined harvesters. These machines gather all the seeds with the grain, and scatter it broadcast again after threshing it out. This is considered a great drawback to these machines, and we have heard it stated that in some sections of the State the matter of discarding the harvester is being seriously discussed. Land once allowed to foul is hard to purify again, especially where there is but one crop grown.

#### Tehama.

**TEHAMA COUNTY FAIR.**—*People's Cause*: The Directors of the Tehama County Agricultural Association have decided to hold their annual fair August 18th to the 22d, inclusive. The Association is determined to have an exhibit of agricultural, horticultural and manufacturing products at the pavilion, also stock, etc., at the fair grounds, and has appointed a committee of gentlemen to prepare a premium list and take charge of the pavilion exhibit whose well-known enterprise and public spirit is a guarantee of a grand success.

#### Tulare.

**HOW THE VISALIA CHEESEFACTORY IS MADE.**—*Times*, April 30: It is a two-story structure, the lower floor having three walls. The first wall is of brick, 13 inches wide; ten inches from this is a wooden wall, the space being filled in with sawdust; outside of this again is another wall of rustic lumber, the ten-inch space being open and acting as a ventilator. On the first floor are two rooms containing shelving on which to place the cheese while curing. These rooms are as cool as a refrigerator box, and no ice is required for giving the temperature required in summer for the proper keeping of cheese. There are two small rooms on the lower floor designed for use in making butter, when the supply of milk is greater than can be used in making cheese. The upper floor of the building is the manufacturing department and contains several living rooms for the use of the parties employed in the establishment. The cheese made last winter was sold in the San Francisco market, one firm contracting to take all that was made up to the 15th of March last at 13½ cents per pound. To-day cheese is quoted at 11 cents per pound in the San Francisco market, but that manufactured here has attained such a reputation that the last shipment, consisting of over 8000 pounds, was readily disposed of at an advance above quoted rate. Something over 400 pounds of cheese is made each day, and should the supply of milk continue to increase as it has of late, another vat will have to be secured.

**A LAMB CROP.**—*Porterville Enterprise*: Henry Zimmerman's sheep made a pretty good record this season, as out of 2600 ewes he obtained 2800 lambs, of which number he shipped 2400 to San Francisco.

#### EDGEWOOD FARM.

Maj. W. H. Boyce, late Sup't above Farm, Terra Haute, Ind., says, "I consider Quinn's Ointment the best of its kind on earth. Have had success in every case." For Cuts, Splints, Sprains, Windpuffs, Bunches, has no equal. Trial box 25 cents, silver or stamps. Regular size \$1.50 delivered. Address W. B. Eddy & Co., Whitehall, N. Y.

**ASBESTOS** is now used to make complete suits for firemen. It is said. Masks are made of asbestos, which are fireproof, and the heat from the hottest fire is said not to penetrate to the skin. Air is drawn from beneath the mask for breathing, so that the burned or flamed and smoke-laden atmosphere is not inhaled. Aprons and insulated coverings for the entire body are now constructed of asbestos. For domestic use sad-iron holders of asbestos may be had, and with these the grasp of the iron, however hot it may be, never causes pain or burning. Plumbers welcome asbestos cloth for joint-wiping, and larger holders intended for use by smelters, molders and workers in metal generally are among the most recent uses of this mineral. Asbestos mittens to guard the hands are made for assayers, refiners, etc., and armed with a pair, the artisan or worker can grasp hot irons, crucibles and the like without discomfort. The mittens are sufficiently pliable to permit of small objects being readily picked up and held in the hand wearing them.

Not many physicians make great therapeutic discoveries. For the most part they content themselves with administering judiciously what is prescribed in the books. To Dr. J. C. Ayer, however, is due the credit of discovering that greatest of blood-purifiers—Ayer's Sarsaparilla.

**BOTANICAL GARDENS.**—In Europe, there are over 300 botanical gardens, displaying the vegetation of every clime and affording perpetual delight and information to the people. In the United States there is only one—Shaw's garden, at St. Louis. The west has taken the lead of the East here. But the prospect is, that in the course of a few years, New York City will have a magnificent botanical garden at Bronx park, rivaling in time even the royal Kew gardens at London or the Jardin des Plantes at Paris.

#### WHY THE HORSE DIED.

If you had read the "Treatise on the Horse," you could have saved his life. Ignorance has cost you the price of the horse. Buy the book and know how. Sent for 10 cents, a stamp or silver. Pioneer Buggy Company, Columbus, O.

A GREAT many people are interested in knowing how to remove oil marks on wall-paper, where careless people have rested their heads. This may be done by making a paste of cold water and pipeclay or fuller's earth, and laying it on the stains without rubbing it in; leave it on all night, and in the morning it can be brushed off, and the spot, unless it be a very old one, will have disappeared. If old, renew the application.

#### ORANGE PLANTERS

Should read the advertisement of the Aloha Nurseries. The best varieties are offered at rates so low that no one need hesitate about planting for experiment, or for investment in places where the orange is known to thrive.



## From Sample to Gown.



UR shelves and counters are taxed to make room for the new stuffs that our buyers are sending from Europe and our own New York. Gay stuffs, sombre stuffs, with the delightful stamp of newness!

No reason now why any woman in town or out of town should be badly dressed. Be her purse light or heavy, we can meet the demand for the beautiful in dress materials. The out-of-town woman selects from a generous envelope of samples; her city sister sees the pieces from which the samples were cut, but learns no more.

Samples are straightforward. They tell a plain tale of quality, width and price. In these days of steam, an order is mailed, and presto! the package in return is at your door. Before catalogues were published and railroads traversed California, the luckless housewife was compelled to take such goods as the neighboring stores supplied. Now, an out-of-town customer shops with almost as wide a choice as her city sister and may wear garments of equal style. Why should she not? The fashion magazines go everywhere; the Sunday newspaper has a fashion column; the great store advertisements are fashion news—the best of all perhaps.

Send for catalogue, as that is a great help in ordering. Also send for samples of such dress materials as you may think of buying, stating colors and about the prices you wish to pay.

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We are meeting with great success in our all-wool Henriettas at fifty cents a yard. They have a silky finish and are of fine soft texture. These Henriettas are full forty inches wide, which is unusually wide in goods at this price. May be had in black and twenty leading colors. If you send for samples, state colors preferred.

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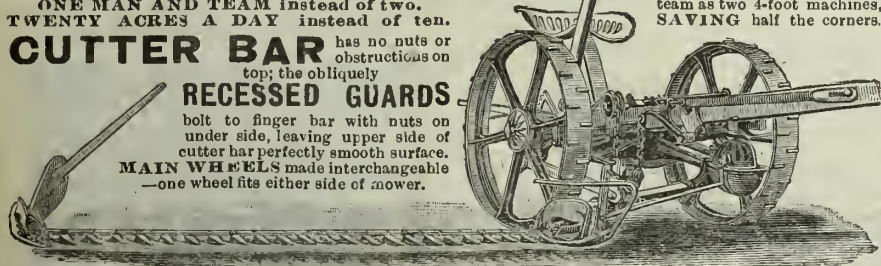
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ONE MAN AND TEAM instead of two.  
TWENTY ACRES A DAY instead of ten.

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**RECESSED GUARDS**  
**MAIN WHEELS** made interchangeable—one wheel fits either side of mower.



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as CUTTER BAR is carried entirely on Main Wheels.

**7-FOOT** mower will do as much with one team as two 4-foot machines, SAVING half the corners.

THE FOOT LIFT raises cutter bar with perfect ease without the aid of hand lever, the first ever made.

**EASILY TILTED.**  
can be entirely taken apart and put together again by the farmer with a common wrench. SEND FOR SPECIAL CIRCULAR.

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IT IS LIGHTER, STRONGER, MORE DURABLE AND BETTER VENTILATED THAN ANY OTHER BARREL.

This engraving of the CALIFORNIA VENTILATED BARREL makes plain to the practical shipper its points of superiority over the common barrel, which may be enumerated as follows:

It weighs from five to seven pounds less than the ordinary barrel, making a material saving in freight charges.

It costs less than one-half for trimming, and does not require an experienced hand to cooper it.



It is the only thoroughly ventilated barrel made, a very important point.

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Never varies in size, even to the extent of a quart.

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It is Made of the Best Quality of Spruce, Woven Together with Copper Wire, And can be furnished in any size desired.

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Sweet Potatoes,  
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And Vegetables of All Descriptions.

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## HORTICULTURE.

## Orange Culture.

[By D. H. MURRAY, of Thermalito, Butte Co.]

The culture of the orange in the northern parts of California, particularly in the foothill regions of Placer, Yuba and Butte counties, being now an acknowledged fact, a desire for a practical knowledge of its propagation and culture has been aroused in the locations mentioned.

Everything depends upon the character and situation of the land to be planted, and according to those you must select and arrange your orchard. The orange delights in a warm, fertile and well-drained soil, as a cold and damp soil is fatal to it. A gravelly loam is best suited to the orange, for it is generally a warm, well-drained soil, while the roots of all trees delight to work their way around and among the gravel, which retains more moisture for the roots to draw upon, the result being less irrigation. The large amount of iron contained in our red gravelly soil gives to the fruit a deeper and richer color. Our heavy adobe soil will not do for citrus fruits, as it is too heavy and cold, stunting and stopping the growth of the tree as soon as the roots reach the cold subsoil, thus producing an inferior tree and poorer fruit, even if the ground is in a well-cultivated condition and plenty of water at hand. On poor and barren soil the orange cannot be maintained unless there are plenty of fertilizers and water. In the end good, deep, rich land will be cheaper than poor land at half the amount per acre.

Drainage is of the utmost importance, as it increases the fertility of the soil and promotes the health and vitality of the tree.

Prepare your land so that it will have a uniform surface over which water can be carried. The land should never be plowed when very wet, for it then has a tendency to run together, making it more difficult to thoroughly pulverize. The tramping of the horses also does the land an injury, causing it when drying out to form and bake into clods. After your land has been well leveled, cross plow it eight or ten inches deep; then let it lay for a day or two, then harrow it. Use a light drag or scraper if needed to fill the slight depressions, and follow up with a harrow. Lay off your trees evenly, either on the square system or by the quincunx system. In digging the holes to set the trees they should be dug round and straight down; a little under is better; this gives plenty of room to enroot the roots to advantage on every side. In filling the holes, the top soil should be thrown in first, then fill up with the other soil, avoiding any large stones or hard clods of earth.

## Trees.

In the selection of the trees too great care cannot be taken; it is advisable to secure them from a reliable home nurseryman who makes it his whole duty to offer for sale nothing but vigorous, healthy trees, true to name. The best class of trees to plant is a one-year-old bud on three-year-old healthy seedling stock. Should it be deemed too expensive to purchase good budded trees, there is another method of acquiring a budded orchard, which the writer has proven to be better than many of the budded trees.

Secure good healthy three-year-old seedlings and plant them in an orchard form, taking the best care of them for two years, then have them limb-headed, putting in from two to three buds to each tree, in two years time it can confidently be said that you will have more fruit to the tree than if budded trees had been put in in the beginning. Another good and desirable result is that the trees will be stronger and harder, two to one than the budded stock.

Citrus trees can be planted at all seasons of the year, but the best time is when the ground begins to get warm, after the first spring growth gets nicely hardened, say from the latter end of April till the middle of June, when the trees will start and do well. If the trees have been lifted with balls of earth, they require but little cutting back, simply taking off some of the largest points to make the top more shapely. If lifted with naked roots, they require more cutting back, more particularly the tender shoots; the roots should also be pruned before planting, and great care taken not to expose the roots to the hot sun.

Should a north wind come up, while planting is in progress, cease work at once and heel in the trees, covering the tops with wet sacks or any substance that will hold moisture. The writer believes that more trees die by being handled when the north wind is blowing than from any other cause. After examining trees that have died from the effects of a north wind, the small roots have been found shriveled-up beyond recovery, while some of the larger roots actually cracked open; when planted the water finds its way into them, the bark rots and peels off in a stringy substance, the tree dies and the nurseryman who furnished the trees is blamed for having sold trees with unsound and unhealthy roots. Never neglect to give the newly planted trees plenty of water as long as it does not stand about their roots, chilling them and preventing their spreading out in search of food. The presence of too much water can be easily detected as the leaves commence to turn gradually yellow.

If carefully watched in their growth, the

trees will require but little pruning; remove all crossed branches, to prevent chafing, which might terminate in the dreaded "gum disease."

Pruning is certainly overdone in a great many cases, especially by those who go about styling themselves "pruners;" they care little for the tree or its appearance, but have a great care for the dollars that are in sight. Not 1 in 20 really understands the object and gain of well-considered pruning. Pruning regulates the form of the tree, and causes it to become more fruitful and with larger and better fruit. If practiced to too great an extent, the desired result is not obtained, for every tree must have a certain amount of foliage to absorb the flow of sap; otherwise it will send forth a great number of suckers, which are an injury to the tree.

On the other hand, all dead and surplus limbs, which are only a harbor of dirt and vermin, should be removed from the center of the tree, but bearing in mind that the citrus family has always a luxuriant and heavy growth of foliage.

Keep your orchard well manured, as the luxuriant growth of foliage requires a large amount of nutriment, rapidly exhausting the natural fertility of the soil. As the trees increase in size, spread the manure broadcast, so that the roots which feed the tree may get the full benefit of the manure; it would be better to plow the manure under, thus keeping it from evaporating and drying out. This also helps to make the land more friable and to keep in condition.

## Irrigation.

There are many ways of irrigating, and of these the following has been found to be the most successful on the redlands in this part of the State, and is the method generally adopted. Furrows are plowed on each side of the rows of trees, in young orchards about two feet from the trees, which distance is increased as the orchard gets age. Care should be taken to so place the furrows that the water may be easily conducted over the land; turn the water over the first row, and allow it to run there till it reaches the lower end, then turn out nearly all of the water, leaving only enough running in it at the head to carry it through; continue on through the orchard until the supply is all in use; let it run in the rows until the soil is thoroughly tilled with water, then turn it out. After the land has dried enough to permit of a horse traveling over it, start the cultivators at work so as to keep the soil loose and mellow. Irrigation should be practiced at least once a month during the dry season, and oftener if the trees show any signs of flagging. No set rule can be given, only remember this—do not let your trees suffer for moisture; and if they show any indications of wanting it, irrigate at once, no matter if one day or one month has elapsed since the last irrigation.

## Propagation.

The orange is propagated most successfully from the seed, although all the citrus fruits can be rooted from cuttings. The following method has been practiced by the writer for many years, and has been very successful. As soon as they can be procured, say about the middle of January, sow good fresh seeds thickly in boxes filled with a mixture of sand and leaf mold, and place them in a hotbed with a gentle bottom heat; as soon as they appear above ground, give them plenty of air, that they may not grow up spindly; by May they will be from three to four inches in height. When of this size, they should be removed to prepared beds under a latb house, where there is always a half shade. The young trees are taken from the seed boxes and pricked out from three to four inches apart in rows, and left until the following spring, care being taken that they are regularly watered and weeded. If your ground is inclined to be wet or cold, it would be well to dig down under the pathways from 12 to 15 inches deep, and filling in with large stones, then fill again with earth, thus forming a set of blind drains into which the surplus water will flow and not remain around the trees.

The trees should attain an average height of from 12 to 15 inches and have an abundance of fibrous roots, ere they are transplanted to the nursery rows. In the spring, the trees should be transplanted to rows which are far enough apart to allow a one-horse cultivator to pass between the rows. The trees are set out about one foot apart and are left undisturbed for two or three years; they should be irrigated every two weeks, and thoroughly cultivated to keep down weeds and other foul stuff.

It will be found that the shaddock makes the strongest stock in the least time to bud on, but the common sweet seedling makes an elegant and thrifty stock in three years, and, in the opinion of many nurserymen, is the most profitable. The writer has banded a very large quantity of sour stock in the last few years to bud on, and found it an excellent stock, but as the sweet stock has been found to be all that is desirable, he would recommend the growing of the sweet stock. Should anything happen to your buds, you can let the sweet stock grow and more than likely get a good orange, while the sour stock must be rebudded as its fruit is worthless.

Budding is done in the spring, summer and fall; as the spring season is very short and buds are often hard to obtain, spring budding is not extensively practiced, particularly where there is a large amount of budding to do; on account of the danger of north winds in June, summer budding is not recommended. The experience

of most nurserymen is that fall budding is the most profitable; you do not have the hot winds of summer to contend with, the days are warm and pleasant, and everything is favorable. Last fall the writer inserted 3000 buds, and lost but 20 in the whole number.

## Selecting Buds.

Nothing but the best buds should be selected; select well-ripened wood of about the size of a lead pencil; see that the eyes of buds are full and plump, as they will always put out good, strong canes or shoots; if immature buds are used, they are sure to remain dormant a long time, and in many instances can never be excited into growth.

Trim the stock six or eight inches above the ground, so that the buds can be inserted as low as possible; with a budding knife make a cut in the bark in the shape of a large T, having the top run across the stock, slightly raising the bark at the top. Take the bud shoot between the thumb and finger of the left hand, with the point away from you, and gently cut the bud off, drawing the knife toward you. Make the cut as thin as possible; take off as little of the wood as possible, insert the bud in the T cut, pressing it firmly down into the bottom of the cut; start binding the bud from the top, as this has a tendency to tighten it more firmly, and then loop the twine through itself at the bottom.

If fall budding, the twine can remain on for three or four weeks before being removed. The stock is allowed to remain untouched until the following spring, when it is cut down to within four or six inches of the bud, the left part above the bud answering well to tie the young shoot to. This should be done as soon as it is four or five inches long, as it keeps the shoot straight, making fine straight trees. Great trouble is experienced in inserting the buds in the wood of old trees, hence the trees should be well cut back on limbs, leaving only enough to shade the trees. The cutting should be done in the spring and the tree allowed to throw out a new growth of wood. In the fall there will be plenty of good wood to bud on.

In conclusion, Mr. Murray gives his opinion upon the merits of the seedling as compared with the budded trees, and then recommends the following as the best varieties of budded fruit to plant in this section of California: The Washington Navel, Mediterranean Sweet, Malta Blood and St. Michael. He admits that the yield of the seedlings is large, but prefers the budded fruit on account of its quality and its earlier ripening.—Oroville Register.

## Does the Walnut Influence Neighboring Trees?

EDITORS PRESS:—Gen. Brislin, in his book on trees, states that fruit trees will not do well in the vicinity of either the English or the black walnut, owing to the exhalations of the walnut. If this be the fact, it is one which it would be of interest to the orchardist to know. As I observe you are about to publish a new edition of Wickson's California Fruits, etc., it occurred to me to suggest that you call Mr. Wickson's attention to this, so that he may take some notice of that question in the new edition. D. B.

San Francisco.

[We would like to have the observation of RURAL readers on this point.—EDS. PRESS.]

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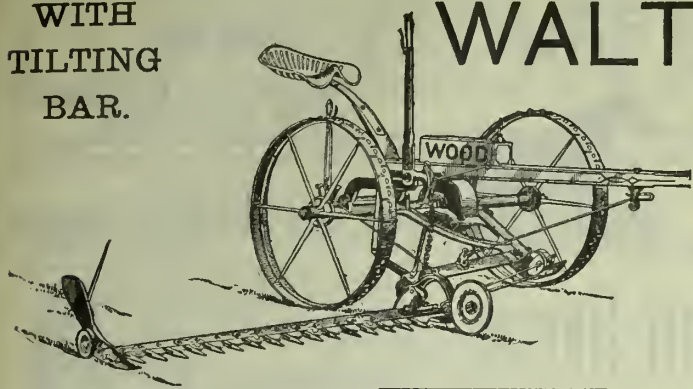
THE BEARINGS are boxed with brass—the best for light draft and durability. These boxes preserve the shafting from wear and can be easily renewed, but a worn shaft or frame is costly to replace.

THE GEARING is compactly enclosed in a dust-proof box and has the motion for heavy cutting and light draft.

THE UNEQUALED HEIGHT TO WHICH THE BAR AND DROOP FRAME CAN BE RAISED permits passing obstacles, whether under the bar or between the wheels, which would otherwise have to be driven around.

The Mower combines Great Strength with Lightness of Draft.

HIGH WHEELS, WIDE TREAD, IMPROVED PITMAN.

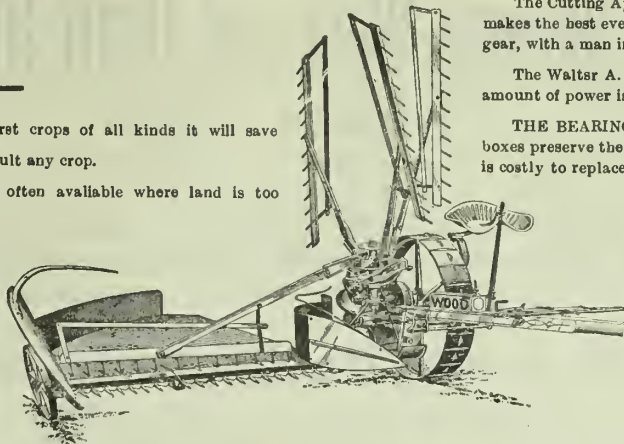


This Reaper is not only effective in good standing grain, but in the worst crops of all kinds it will save where other reapers cannot work. The raking is instantly controllable to suit any crop.

Is it the lightest-weight Reaper in the world, yet the strongest, and is often available where land is too rough for others. It makes very easy work for a team.

The broad sweep of the rakes delivers the grain so well that men can bind after it better and faster than after many other side-delivery reapers. The frame is a single piece, exceedingly strong.

The driver has perfect command of the machine without turning his head from the team. With the levers he can adjust the height of the machine or tilt it to any angle independently or regulate the size of the gavel by setting a lever.



LIGHT ENCLOSED GEAR REAPER.

# WALTER A. WOOD SELF-DUMP RAKES.

THREE SIZES: 8-FOOT, 10-FOOT AND 12-FOOT.

OPERATED BY ANY ONE WHO CAN DRIVE.

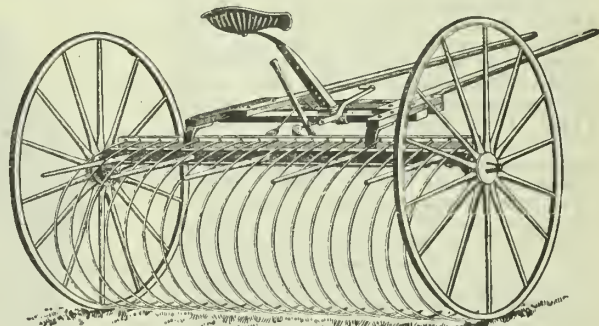
The Walter A. Wood Rake is both a self-dump and a hand-dump, though generally operated as a self-dump. A light touch of either foot of the driver causes it to dump and resume raking without noise or jar and without skipping any hay. It is the easiest and best working of all Rakes.

Steel Wheels of the Best Design ever used on a Rake. Steel Axles.

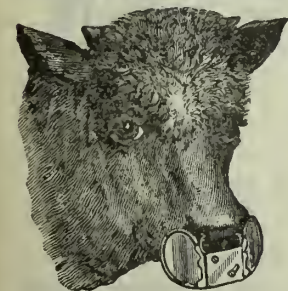
The Rake is strong, free from dead-lock, neck-galling, side-jerk, dirt-scratching and liability to breakage. If desired, an attachment is furnished so the shafts on the 8 foot Rake can be quickly changed to a pole for using the mower team in place of bringing out a single horse. Seat is instantly changeable to accommodate a man or child.

ADDRESS

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CALEF  
WEANER  
—AND—  
Sucking Cow  
MUZZLE.

Prevents Calf or Cow from Sucking Themselves or Each Other.

Thoroughly Tested and Endorsed by All. No Hindrance in Eating and Drinking. No Pain. Complete Success.

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FUNK'S  
PATENT  
CALF FEEDER.

Also for Goats and Lambs.

Raises better calves than any other method. Better than the cow, because can feed prepared feed and give all the calf can eat. As soon as the calf feels the nipple it tastes the milk and is glad to suck; as it gets older it learns itself. No air swallowed; no fingers chewed; no ears sucked. Less trouble; greater success; easy to clean. Sample Feeder mailed postpaid, \$1.00; per dozen, \$9.00. There are Great Advantages in REARING YOUNG CALVES BY HAND over rearing them with the cow. It takes less time and trouble, because they are easier handled, depend on themselves and winter better; get to eating sooner by putting milk-stuff in the milk; make better calves, because plenty of skimmed milk and slop to spare; make more butter because the cream is saved; can run in the same pasture with the cow, never have to wean them, and the cow does no fretting for the calf.

Will send trial Weaner and Feeder, postpaid, \$1.50. Don't fail to give them a trial.

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Clear of expense of doing business, satisfies us, and we submit it to you as a business proposition. Is it not worth this much to have some one in the City where trade of the Coast centers to attend to your commands, either in buying supplies or selling produce. We can often save you twice this cost, even if you were present to engineer the trade yourself. Give it a trial. Send for our list of prices and explanations about business methods (free).

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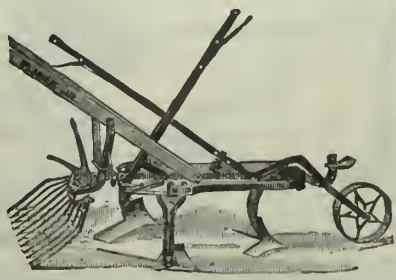
## "PLANET, JR."

IMPROVED FARM AND GARDEN TOOLS FOR 1891.

BETTER, both Horse and Hand, THAN EVER; better and more money saving. We cannot describe them here, but our new and handsome catalogue is free and interesting. A goodly number of new tools will meet your eye there. Among these, Gardener's Harrow, Cultivator and Pulverizer combined adjustable teeth; Market Gardener's and Beet Grower's Special Horse Hoe, with Pulverizer; Special Farrower, Marker and Ridger, adjustable wings; Sweet Potato Horse Hoe, four tooth, with Vine-turner; Heavy Grass Edger and Path Cleaner; new Nine-Tooth Cultivator and Horse Hoe combined; Special Steel Leveler and Pulverizer combined; all interesting, nothing we have ever made so practical or perfect. Some improved things, too, are grafted upon our older favorites. A capital LEVER WHEEL, instantly adjustable for depth is a great feature; put on all '91 goods unless ordered otherwise. Nor have our Hand Seed Drills been forgotten in the march of improvement, nor our Double and Single-Wheel Hoes, Garden Flows, Grass Edgers, Etc. Some of them are greatly altered for the better; yet do not forget that NO NOVELTIES ARE ADOPTED BY US WITHOUT ACTUAL AND EXHAUSTIVE TESTS IN THE FIELD. We, therefore, guarantee everything exactly as represented. Send for Catalogues now.

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"DEAD LOCK" GOPHER TRAPS are best. Price 25c a piece or \$3 per doz, delivered. I. F. WHITE & SON, Pomona, Cal.



### Southern California Pomological Society.

The Pomological Society of Southern California is evidently in the field for business. An adjourned meeting was held yesterday afternoon in the rooms of the Chamber of Commerce, preceded by a meeting of the committee of eight members from the different localities to prepare the necessary articles of incorporation of the society. It was decided that the name of the corporation shall be The Pomological Society of Southern California, and that the purposes for which it is formed are to encourage the culture of all kinds of fruit to which the climate and soil of Southern California are adapted, the destruction of fruit pests, and for the holding of agricultural fairs. It was further decided that the place where the principal business of said corporation is to be transacted shall be the city of Los Angeles, and the term for which it is to exist be 50 years. The incorporators are Thos. A. Gary, Garey, Santa Barbara county, Cal.; Hiram Hamilton of Orange, A. C. Thompson of Pasadena, D. Edson Smith of Santa Ana, N. C. Hudson of South Riverside, Frank A. Kimball of National City, O. P. Chubb of San Bernardino, H. W. Kroeberburg of Los Angeles, and A. C. Fish of Riverside. There were chosen 11 directors, including, in addition to the names of the incorporators, those of N. W. Blanchard of Santa Paula, Ventura county, and — Somers of El Cajon, San Diego county.

After some discussion concerning the revision of the constitution and by-laws, in accordance with the articles of incorporation, the principal topic of discussion was the display of Southern California horticulture at the World's Fair in 1893.

Messrs. Kimball, Thompson and Hamilton were appointed a committee of three to consult with Commissioner L. J. Rose in regard to the disbursement of the State appropriation for the World's Fair.

The committee having in charge the growing of both fruit and ornamental trees to be used for planting a grove of citrus trees at the Fair, reported that the growers of each county supply a certain number of trees, from which the committee will make selections in the spring of 1893. It was agreed that San Bernardino county furnish 75; San Diego county, 50; Los Angeles county, 75; Orange county, 30; Santa Barbara county, 25; Ventura county, 25; and it was further recommended that in addition to this number, one-fifth of the several numbers of trees be of an ornamental character with which to surround and embellish the grove. Each member of the committee is expected to take immediate steps to start these trees growing in the proper shape for transportation in 1893. It was further unanimously decided that this exhibit go forth as a typical horticultural display of the semi-tropical fruits and vegetation that are peculiarly characteristic of Southern California, and that it be recognized as the display of the Pomological Society.

Tonching methods of planting and cultivation there was considerable discussion, but the consensus of opinion was that the better plan would be to start the trees in large boxes, say from 2 1/2 to 4 feet square and possibly from 18 inches to 3 feet and over deep; these boxes to be intersected by smaller boxes, so that as the lateral feeders or fibrous root of the plant filled the inner box, it could be removed, more soil added, and when the fibers had again filled the outer box, this could again be removed and soil again substituted until ready for shipment. In removing the inner boxes, it was thought that in some cases the fibrous roots would have to be cut, but this would in no way injure the trees, as any root clipped would naturally send forth a number of new lateral feeders. In this way the tree, with possibly a little commercial fertilizer, would find ample scope for growth, and its removal would in no way check its development.

It was further agitated and discussed that in the future, exhibitions of fruits held by reason of securing appropriations from the State be under the auspices of the Pomological Society. This matter will undoubtedly come up for final consideration at some future meeting.

There being no further business, the meeting was adjourned subject to the call of the president or notification by the secretary that the incorporation papers had been filed, and that the Society was in a position to go ahead with its work and the transaction of its regular business. — Los Angeles Times.

#### Our Agents.

OUR FRIENDS can do much in aid of our paper and the cause of practical knowledge and science, by assisting Agents in their labors of canvassing, by lending their influence and encouraging favors. We intend to send none but worthy men.

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### Annual Spring Sale

—OF—

### 200 HEAD

## Road, Harness, Work and Draft Horses, And Shetland Ponies,

From the Ranch of J. B. HAGGIN, Esq.,

—WILL TAKE PLACE AT—

SAN FRANCISCO, on Thursday, May 14, 1891,

At the Sale Yard, Corner of Market Street and Van Ness Avenue.

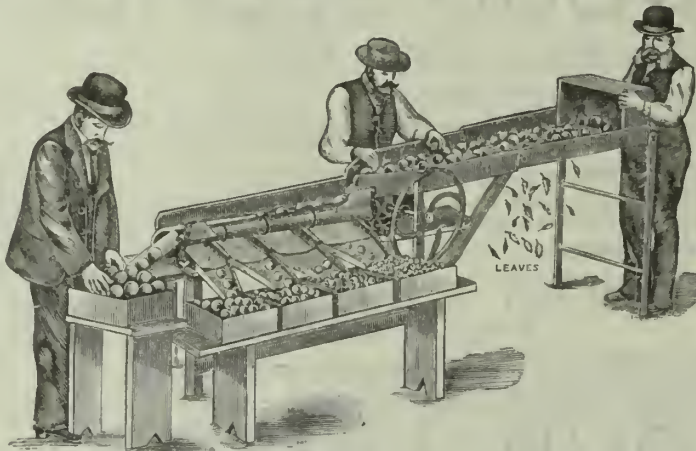
HORSES MAY SEEN AT SALE YARDS ON AND AFTER SUNDAY, MAY 10th.

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## NEW CALIFORNIA FRUIT GRADER.



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MOSHER, CHANDLER & CO., Manufacturers.

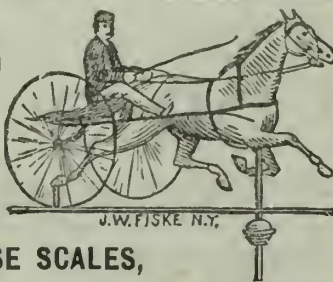
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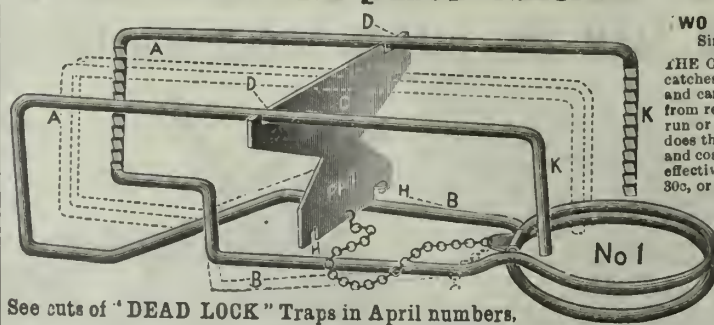
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NEW RAISIN PACKING SCALES

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## "SUICIDE" Gopher and Mole Trap.



See cuts of "DEAD LOCK" Traps in April numbers.

Two Traps in One.  
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THE ONLY TRAP which catches from either end and cannot be covered up from rear. Placed in the run or across the fork it does the work of two traps and costs less. Simple and effective. Price, postpaid, 30c, or \$3.50 per dozen.

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WANTED, a contract to bud large quantity of citrus or deciduous nursery stock, or budding by the month; all work guaranteed. Address H. E. V. PICKSTONE, Postoffice box 597, Santa Clara, Cal.

### Ditching Machine for Sale.

If any farmer in Russian river or Santa Rosa valley desires a DITCHING MACHINE at a very low price let him address S. E. G., P. O. box 2517, San Francisco.

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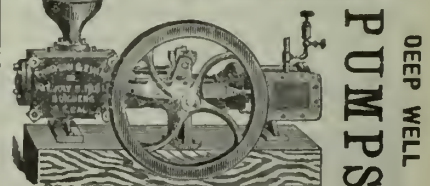
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Iron cut, punched and formed, for making pipe on ground. All kinds of Tools supplied for making Pipe. Estimates given. Are prepared for coating all sizes of Pipe with a composition of Coal Tar and Asphaltum.



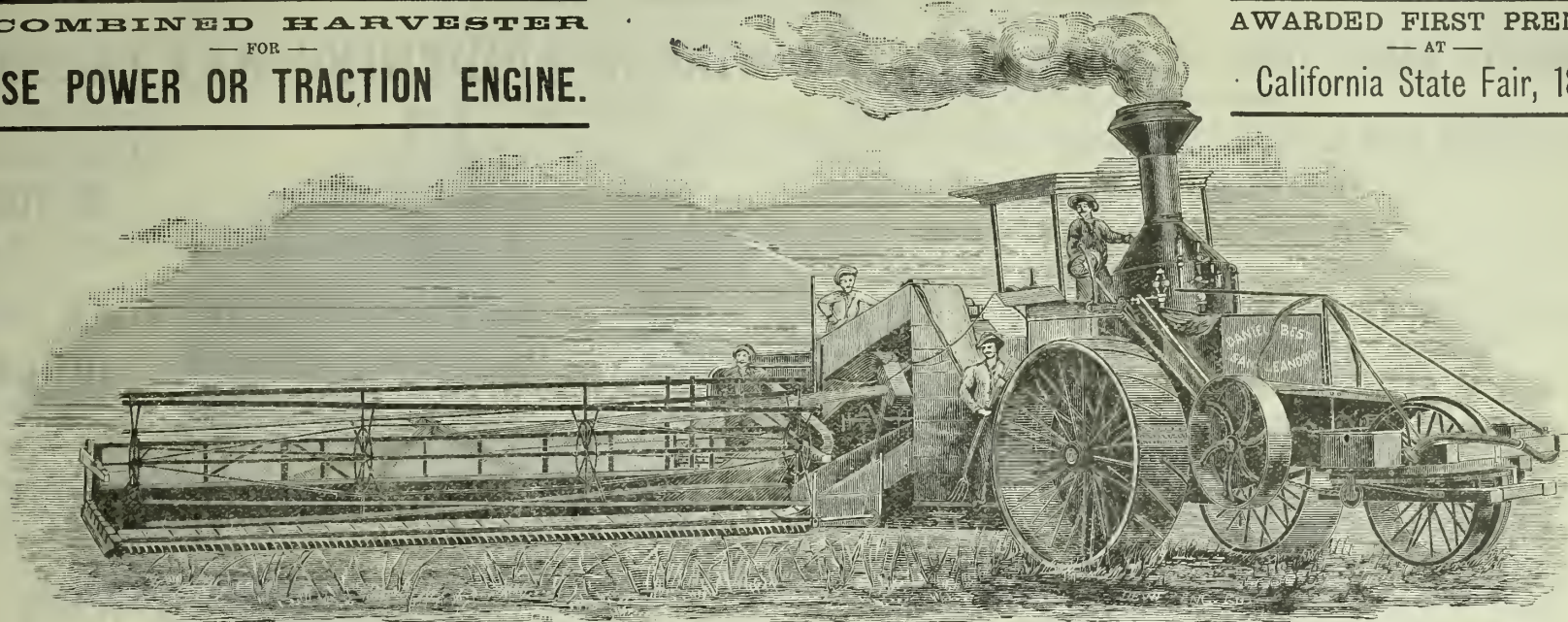
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SHOWN AS AT WORK IN THE FIELD.

Improved for season of 1891 with all latest improvements, including Best's Peerless Grain Cleaner.

All sizes made to order, from 14 to 40 feet.

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## THE "TRIUMPH"

The Best Pulverizer in the World.

## ALL METAL SPADING HARROW.

HORTICULTURISTS AND FARMERS, TRY IT.

JUST THE THING FOR WORKING SUMMER FALLOW LAND.

FOR TWO HORSES. Works the soil about six feet wide. Angle of teeth adjustable to work the soil at desired depth. THIS HARROW is something entirely new. IT IS THE GRANDEST ACHIEVEMENT of its inventor, C. LA DOW, who is the recognized authority on Harrows, there being but few leading harrows at the present time not built under his patents. We have made exclusive arrangements for its sale and it can be obtained only through us or our agents. THE NAME "SPADING" refers to its action on the soil. The action of each cutter is like that of a small spade, lifting and turning the soil from a depth of four to six inches, doing more perfect work than is possible with any other harrow in the world. THE BLADES are made from spring steel, in operation vibrating and shaking off sticky soil. IT NEEDS NO SCRAPEKS to clean the revolving cutters.

Considering the immense amount of labor done, the draft is very light, as the pulverized soil passes through the gangs of revolving cutters, being left smooth. THE GANGS are so arranged that the most uneven ground is thoroughly harrowed and left level. It leaves NO FURROW or ridge; when the field is harrowed it is all left smooth. 10, 12 and 14-ft. sizes in stock. SEND FOR CIRCULAR.

### TESTIMONIALS.

HAYWARDS, CAL., Jan. 15, 1891.  
H. C. SHAW PLOW WORKS, Stockton, Cal.—DEAR SIR: Your Triumph Spading Harrow is all that is claimed for it. It is the most perfect pulverizer I ever used in my orchard and is not wearying or exhausting on the team. Yours truly,  
WILLIAM C. BLACKWOOD.

SANTA ANA, CAL., Jan. 16, 1891.  
H. C. SHAW PLOW WORKS, Stockton, Cal.—DEAR SIR: The man using the Triumph Spading Harrow we bought of you, writes us as follows: "The Spading Harrow is all that could be wished. In orchard work it can be run nearer to the trees than any other kind, and does away with hand hoeing to finish with. I have also used it to harrow new soil, and it is first-class for that. It takes nine days only with one span of horses to harrow my orchard of over 100 acres, and does it better than with any other cultivator I have ever seen.—DWIGHT WHITING, El Toro, Cal." Yours truly,

SAN FRANCISCO, CAL., Jan. 16, 1891.  
H. C. SHAW PLOW WORKS, Stockton, Cal.—DEAR SIR: The gentleman using the Triumph Spading Harrow we bought from you for him writes us as follows: "That the Triumph Spading Harrow is in fact a triumph over all the harrows I have ever used. The first trial I made was on a 30-acre field sowed with barley; 15 acres were harrowed with the Triumph in one day as perfect as it is possible to be. The other 15 acres I harrowed with a common harrow and it took me three days, and then it was not in as good condition as that harrowed with the Triumph. The Triumph does splendid work and as a harrow I consider it worth three times as much as the ordinary harrow, as well in the field as in the orchard and vineyard. It is a perfect pulverizer and weeder.—C. STROEBEL, Eagle Home Farm, Searsville, Cal." Yours Truly,

COLMENA ORANGE GROVE; Capital Stock, \$100,000; A. F. ABBOTT, Pres.; G. W. PEACOCK, Treas.; E. P. McDANIEL, Sec. MAYSVILLE, Yuba Co., Cal., Jan. 20, 1891.  
MESSRS. H. C. SHAW PLOW WORKS, Stockton, Cal.—GENTLEMEN: Enclosed find check for payment of your bill for Spading Harrow sold to me by Mr. Hill. I shall take pleasure in recommending it to my friends, and think the Triumph will have a large sale in this locality. I am pleased to say to you that the machine is a most excellent one for cultivating the ground and pulverizing it in good shape. For an all-round useful machine, I feel sure any one buying it will appreciate its value. Yours truly,  
A. F. ABBOTT.

SPECIALLY ADAPTED FOR ORCHARDS AND VINEYARDS.

### TESTIMONIALS.

CHAMBERS OF THE JUDGE OF THE SUPERIOR COURT, JOHN C. GRAY, JUDGE. }  
OROVILLE, BUTTE CO., CAL., Jan. 17, 1891.

H. C. SHAW, Esq., Stockton, Cal.—DEAR SIR: I purchased from your Agent, Mr. Hill, one six-foot Triumph Spading Harrow, and sent the same out to my olive farm to try. My foreman declares that it will do the work of four plow teams, and requests me to get another to put into the field by the first of March. He is highly delighted with it and calls it the greatest improvement in farm machinery he has yet seen. Instead of putting a number of teams into the field to plow and then harrow the ground, I shall go over it with the Spading Harrow twice and the work will be more thoroughly done, and at one-third of the expense. This is one of the most complete pieces of farming machinery that I have yet seen, and I cheerfully recommend it to those, who, like me, want the most and best work done for the money. It gives entire satisfaction.  
Yours truly,  
JOHN C. GRAY.

WALNUT GROVE, CAL., Feb. 21, 1891.

H. C. SHAW PLOW WORKS, Stockton, Cal.—DEAR SIR: The Spading Harrow arrived all right and gives perfect satisfaction. I put it on a piece of very rough sod that had been used for pasture for several years, and when it was plowed it was as rough as it was possible to make it. I also had one of the leading Disc Harrows (6-foot) side by side with the Spading Harrow, and we gave them a thorough test, and it was conceded by all present (and there were five or six present) that the Spading Harrow they had ever seen. It did better work and the draft was at least one-third less than in the Disc Harrow, and when we were through the man who owned the Disc Harrow said he wished he did not own it, as he would buy one of the Triumph Spading Harrows.  
L. D. GREEN.

BAKERSFIELD, CAL., Jan. 26, 1891.

H. C. SHAW PLOW WORKS, Stockton, Cal.—DEAR SIR: After using your Spading Harrow in all kinds of work, I will say it is the best pulverizer that I have ever seen. I used it to cultivate my orchard and vineyard, and it does not only cut up all weeds, but leaves the roots up to the sun, which is sure death to them. You may praise it as high as you like, as you cannot say anything it does not deserve. Yours respectfully,  
C. A. MAUL.

LOS ALISOS RANCH, EL TORO, ORANGE CO., Jan. 25, 1891.

MESSRS. H. C. SHAW & Co., Stockton, Cal.—GENTLEMEN: The six-foot Spading Harrow which I purchased through Messrs. Nichols & Ulm of Santa Ana has given much satisfaction, and it does its work thoroughly and quickly. I have given my orchard several harrowings to keep down weeds, and with one pair of 1200-pound mares I harrow 8 to 11 acres per day. You can get nearer to trees than with any other rotary harrow I ever saw used. I have also used the harrow for seeding barley and for fallow land, and I consider it the best machine in use, as for a lump or clod breaker and an orchard evenner it does its work better than any harrow I have ever used. Yours truly,  
DWIGHT WHITING.

EUREKA, HUMBOLDT CO., CAL., Feb. 17, 1891.

MESSRS. H. C. SHAW PLOW WORKS, Stockton, Cal.—DEAR SIR: We would have written sooner in relation to the Triumph Spading Harrow, but we have been waiting for the foreman's report on the Harrow's work. He says it is a "daisy" and beats anything he ever saw. Send us another at once, and oblige,  
Respectfully yours,  
H. H. BÜHNE & CO.

PIXLEY, CAL., Jan. 12, 1891.

H. C. SHAW PLOW WORKS, Stockton, Cal.—DEAR SIR: Regarding the Triumph Spading Harrow would state that we are satisfied it is as light draft as any, and lighter than the average cultivator of its kind, and, as to its work, we think it cannot be beat. Yours truly,  
PIXLEY COMMERCIAL CO.,  
By L. E. SMITH, Secretary.

H. C. SHAW PLOW WORKS, Stockton, Cal.



# STOCKTON COMBINED HARVESTER AND AGRICULTURAL WORKS,

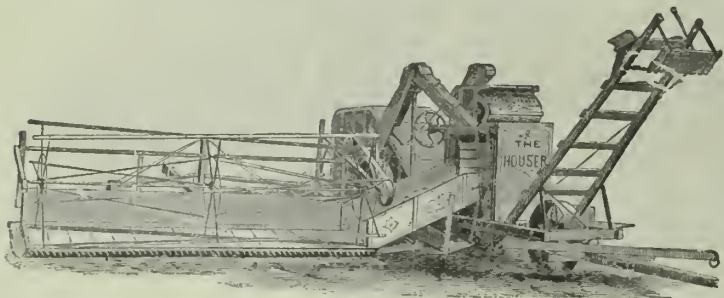
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COMBINED HARVESTERS—CHAIN, BELT OR GEAR. MILLER LIGHTNING HAY PRESSES.

The Houser Belt Combined Header and Thresher  
IS OUR STANDARD MAKE.

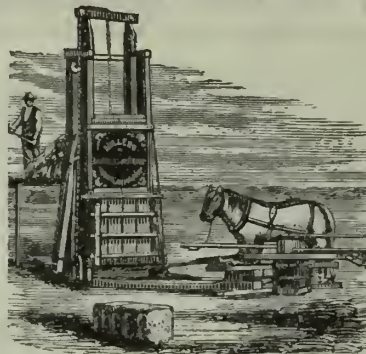
THE BEST KNOWN AND MOST POPULAR MACHINE ON THE COAST.

It is Lighter Draft than any Other Make of Combined Harvesters.



WE USE FOR AN EXTRA CLEANER,  
THE STAR DOUBLE SHOE CLEANER.  
THE ONLY SUCCESSFUL HARVESTER CLEANER MADE.

REQUIRES  
BUT  
FOUR MEN  
AND  
TWO ANIMALS

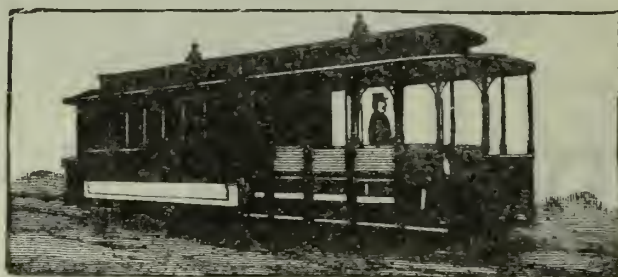


CAPACITY  
30 TONS  
PER DAY.  
CAN PUT  
10 TONS  
IN A CAR.

CARS OF EVERY DESCRIPTION.

STEAM,  
ELECTRIC, CABLE,  
AND HORSE.

PASSENGER,  
BAGGAGE,  
AND FREIGHT  
CARS.



THRESHING MACHINES OF GREATER CLEANING CAPACITY THAN ANY OTHER MACHINE ON THE COAST.

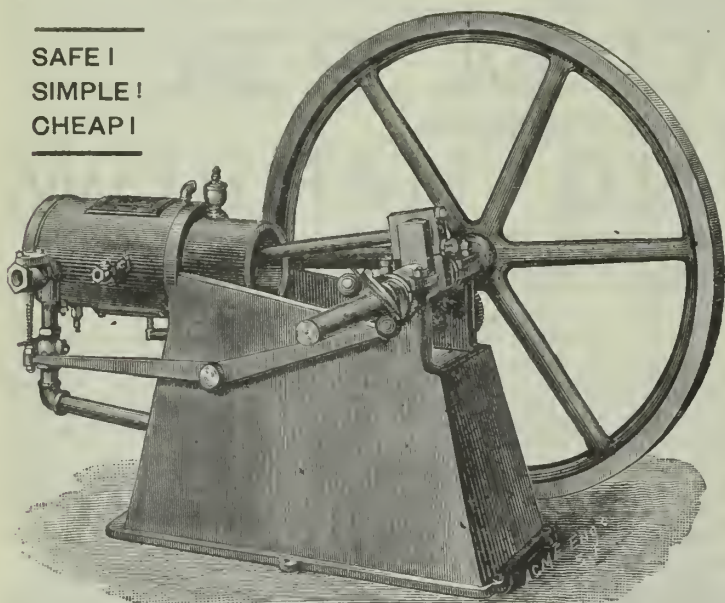
STAR HEADERS, STOCKTON GANG PLOWS, MOLDS AND OTHER EXTRAS.

Boilers and Engines, Structural and Bridge Work, and Repairing of Every Description.

SEND FOR CIRCULARS, AND FOR FURTHER INFORMATION ADDRESS

S. C. H. & A. WORKS, BOX M, STOCKTON, CAL

SAFE!  
SIMPLE!  
CHEAP!



## REGAN VAPOR ENGINE.

NO BOILER. FIRE. EXPLOSION. STEAM,  
ASHES OR ENGINEER.

Started Instantly Without Even a Match. Will Run on Natural or Manufactured Gas or Gasoline. The Moment Engine Ceases to Run, all Expense Stops.

Upright and Horizontal, Stationary and Marine Engines from 3-4 Horse Power, Upward.

Our Engines are especially adapted for Pumping and Irrigating and Spraying Fruit Trees; in fact, for any use where power is required.

OVER 400 IN USE.

POPE & TALBOT, LUMBER, Office, 204 California Street.  
SAN FRANCISCO, Feb. 25th, 1890.

REGAN VAPOR ENGINE Co.—Gentlemen: The 4 H. P. Vapor Engine I bought of you last May has been in constant use ever since, and has given me entire satisfaction. I have found the engine to be all that you claimed for it, and more too. You can use my name for reference if you so desire. I am, yours truly,

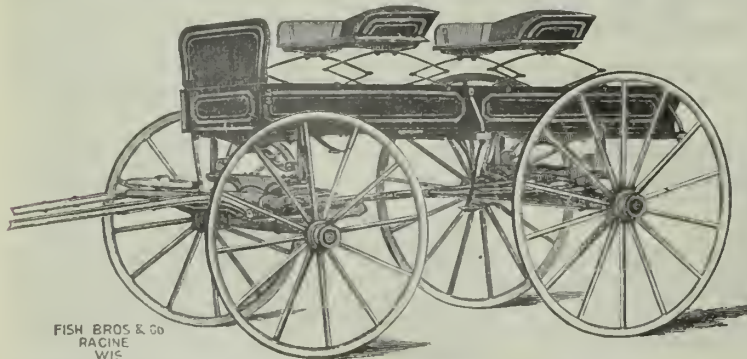
H. TALBOT.

We Carry Thos. Kane & Co's Famous Racine Launches, fitted with our New Compound Engines.

Send for Circular.

## REGAN VAPOR ENGINE CO.,

221-223 First Street, San Francisco, Cal.



FISH BROS & CO  
RACINE  
WIS

## FRANK BROTHERS, 33 & 35 MAIN STREET, SAN FRANCISCO, CAL.

### SPRING WAGONS

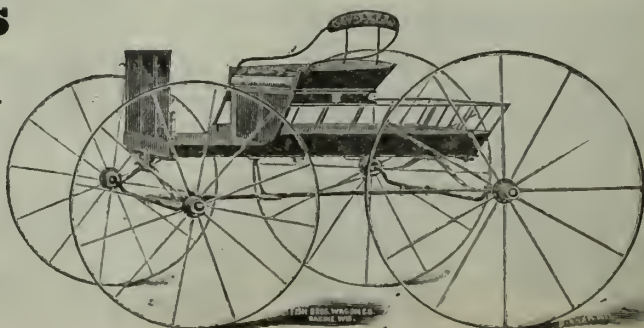
OF EVERY DESCRIPTION FOR BUSINESS OR PLEASURE, CITY, RANCH OR DELIVERY USE.

No. 519. Shown below, has a spindle body and patent springs. Inch axles, Wheels 3 ft. 6 in., Body 4 ft. 6 x 26 inches. Weight 275 lbs. Red gear, Black body. We have an unusually large assortment of light, durable and very serviceable wagons. No. 212 is similar to No. 519, but with plain body 5 feet 2 inches long, and, if desired, can be furnished with two seats and heavier axles.

### CARTS

OF EVERY KIND.

WRITE FOR DESCRIPTION.



FISH BROTHERS' IS A LIGHT AND CONVENIENT SPRING WAGON FOR RANCH AND MARKET USE.  
**DEMOCRAT WAGON**

Wagon especially suitable for light Farm and Orchard work, and any service for a light wagon where springs are not required. It is especially popular in every section. No ranch is complete without one. It has a Double Box Bed, Spring Seat and Pole, if desired. Either Thimble Skeln or Steel Axles.

Farm Wagons, Header Trucks, Buggies, Etc.



## List of U. S. Patents for Pacific Coast Inventors.

Reported by Dewey &amp; Co., Pioneer Patent Solicitors for Pacific Coast.

FOR THE WEEK ENDING APRIL 28, 1891.

- 451,252.—CULTIVATOR—D. E. Barton, S. F.  
 451,253.—CULTIVATOR ATTACHMENT—D. E. Barton, S. F.  
 451,254.—CULTIVATOR BEAM—D. E. Barton, S. F.  
 451,255.—CULTIVATOR CLAMP—D. E. Barton, S. F.  
 451,256.—CULTIVATOR ATTACHMENT—D. E. Barton, S. F.  
 451,316.—PIPE—J. L. Cahalan, S. F.  
 451,317.—RECEIVER'S CASH BOX AND TRAY—B. F. Carman, S. F.  
 451,299.—MILK COOLER—W. W. Conder, Tillamook, Or.  
 451,319.—SASH HOLDER—G. A. Cooper, Alameda, Cal.  
 451,326.—TENSION AND CUT OUT FOR ELECTRIC RAILROAD—B. Jennings, San Jose, Cal.  
 451,199.—STONE SAWMILL—F. H. Kesseler, S. F.  
 451,310.—DOCUMENT FILE—G. F. W. Schultze, S. F.  
 451,138.—SNOW PLOW—Small & Heintzelman, Sacramento, Cal.  
 451,314.—SNAP HOOK—Frank White, Pomona, Cal.

The following brief list by telegraph, for May 5, will appear more complete on receipt of mail devices:

California—George T. Campbell, ladder; N. L. Darling, assignor to Benicia Agricultural Works, traction engine; J. J. Graff, S. F., cable grip; A. Hartung, Nevada City, watch-makers' jewel-setting cutter; A. C. Sewell, S. F., boring machine; Colin Kendre Jr., Nevada City, valve gear for ore stamps; J. W. Lindsay, Fresno, horse-tail holder and rein guard; A. Sommer, Berkeley, neutralizing sulpho-chlorinated oils; L. A. Steger, San Jose, stratified brick; Annie T. Welch, San Jose, veterinary inbaler; James B. Williams, Oakland, insulated electric conductor.

NOTE.—Copies of U. S. and Foreign patents furnished by Dewey & Co., in the shortest time possible (by mail for telegraphic order). American and Foreign patents obtained, and general patent business for Pacific Coast inventors transacted with perfect security, at reasonable rates, and in the shortest possible time.

## Mr. Haggin's Spring Sale.

The great success and popularity of the annual sales of Mr. J. B. Haggin are due to several causes. An important factor is, the animals are placed upon the market absolutely without reserve and limit, and bidders are certain they have but the public to compete with. Another is that no effort is made to induce buyers to believe they are purchasing trotters. There is simply the assurance that well-bred harness and road horses are offered, in addition to draft animals. But these are all of the best quality, and are in such prime condition as to indicate they have received the best of care from date of foaling to day of sale. Experience has proven that animals used for business purposes with an infusion of trotting strains, greatly outlast in usefulness those of cold blood, to use a technical term, and show a high class of individual as a rule. As the animals offered are only broken, no opportunity is presented for testing their qualities, and numerous instances of phenomenal speed have occurred, notably Wells-Fargo, 2-1834, Ben Ali, 2:22, Small Hopes, and others. Since Mr. Haggin's establishment of his breeding farms, his constant endeavor has been to "breed up," hence each year's consignment shows an improvement upon the previous one. We have but to say to purchasers who have need for useful animals that in attending these sales they have a large number to select from, so that the most critical is certain to find an animal suited to his wants. A great advantage in purchasing at these sales is that it gives opportunity for increase of value consequent upon development.

We quote the above from the catalogue of J. B. Haggin's spring sale, which will be held by Killip & Co., in this city, May 14th. See advertisement in another column.

**THE ALVARADO BEET SUGAR FACTORY**—At a meeting of the stockholders of the Alameda Sugar Company, held in this city last week, President Isaac Hecht reported that the books showed a profit for the year, 1890-91 of \$21,000, which, with the profit of the year previous of about \$6000, makes a net balance for the two seasons of \$27,000. This money has been applied in part payment for the permanent improvements, leaving the company still in debt \$35,000, against which there is on hand \$15,100 in seed, material and molasses. To cover the indebtedness and put the company on a solid financial basis, an assessment of \$4 a share has been ordered. The President thought it discouraging that an enterprise so legitimate and of so much promise should be barren of returns for the capital invested and the risk involved. He hoped, but was not certain, that the immediate future would be more satisfactory. On account of a probable shortage in the sugar-beet crop, the directors have advanced the price of beets from \$4.50 to \$5 a ton. The President also referred to the probable necessity of removing the company's works from Alvarado, because the Spring Valley Water Company is diverting the waters of Alameda creek from their regular course to the refinery. "The beet-sugar industry," said Mr. Hecht in conclusion, "must in time become one of first importance to the State and country. The income last year from 1320 acres in beets averaged about \$100 an acre, while \$25 an acre for wheat land is considered very good."

**A SUCCESSFUL TRAP?**—We are informed that money has been sent to the "Success Trap Co." at Stockton, and that no goods have been received. We have made inquiry at Stockton and find that no such firm is known there.



DANIEL BEST, THE CALIFORNIA INVENTOR AND MANUFACTURER.

## Daniel Best.

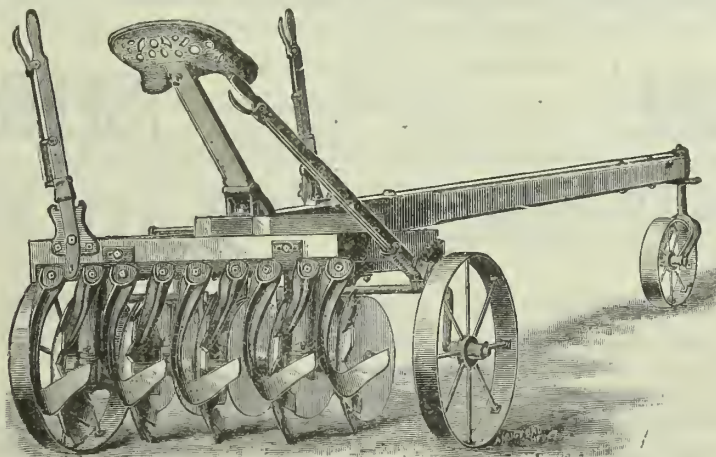
The necessity of labor-saving machinery, especially of agricultural implements, and also the opportunity for rich reward, has stimulated the best talent and brightest minds in devising and inventing implements and machinery suited to our condition and environment. Among the men who have ministered to this demand is the subject of this sketch, Mr. Daniel Best of San Leandro. He is a native of Ohio and a descendant from that noted ancestry that settled in Ohio and Kentucky with Daniel Boone. His occupation was a farmer. In 1859 he went to Portland, Oregon, and led a roving life, alternating as a prospector and laborer. At the age of 21, he commenced carrying slabs at a sawmill, and in less than six weeks he was foreman and manager. Shortly afterward he was the subject of a mining fever, and made a venture in the mining region of the Blue mountains of Idaho and Oregon.

He commenced manufacturing lumber with a

whip saw, but soon devised a plan to build a sawmill out of the waste iron that had been scattered on the plains by emigrants. With a tool-chest containing one saw, broad-ax, square and augur, he succeeded in building a sawmill that could turn out 1200 feet of lumber per day. Mr. Best afterward ran a sawmill in Washington Territory, and while there, met with a severe accident that induced him to come to California, settling in Sutter county.

He saw the necessity of portable cleaners for grain, and designed and invented one, a half-interest of which he sold for \$5000 to Mr. L. D. Brown, the joint interest of which was sold for \$32,000 afterward. He organized the Marysville Mining Co., and spent two years in Oregon up to 1876.

In September, 1885, he bought out the San Leandro Agricultural Works, Alameda county, and entered largely in the manufacture of agricultural implements, principally grain-cleaners and combined harvesters. During the last four years he has given a great deal of at-



## Clark's Cutaway Revolving Gang Plow.

Our illustration represents Clark's Outaway revolving gang plow, made by the Higginum Mfg Corporation of Higganum, Conn., and, like all their celebrated cutaway goods, is fully warranted to be as represented.

The same elements are contained in that as are found in the original plow. The land-side is made of a 16-inch flat steel disk, sharpened. Like the land-sides of other plows, it prevents the plow from moving sideways; at the same time it cuts a track for the share through the trash or sods. The share is larger than on other plows, is made from 20-inch round steel plate, which is notched, sharpened and disbed as shown. Directly behind these shares are suspended spring-steel mold-boards. A clearing knife is so placed that it will remove any substance that adheres to the disk shares. The landside and shares of these plows revolve, and they open and lift the earth more easily than the sliding abrupt wedge form of the old plows.

These plows each cut a furrow eight inches wide by four to seven deep. The furrow is twisted and lifted in the bosom of the disk so

that it stands nearly perpendicular, and thus suspended, the mold-board gives it a slight touch and it is inverted. This process more completely breaks, loosens and aerates the soil than any other.

A long beam or pole is used, which is supported by a 16-inch castor wheel. The body of the plow is supported by two 24-inch carrying wheels, which are attached to a lever within easy reach and at the right of the driver. These wheels gauge the depth of cut and provide a means of transit when not in use. The lever upon the pole regulates the relative depth of cut of the land-sides.

The lever upon the rear side of the frame controls the mold-boards and enables the driver to keep them free from trash. Thus protected and controlled, these plows will perform excellent work on nearly all kinds of stubble or light soil land, and on all kinds of free-working soil.

They will work well on all kinds of land not heavily sodded or extremely sticky. Hard-baked adobe and clay soils will only require more power.

The draught is claimed to be less than one-half that of the common plow, requiring but four horses to out and turn a furrow 40 inches wide.

tention to the building and improving the Remington traction engine. With his improvement, for which letters patent have been granted him, he has succeeded in making the traction engine a necessity to our large ranchers and lumber men. Of these traction engines there are now 23 in actual use, and in every competitive trial the Remington has been awarded first premium. His latest invention is a gas engine that has given unqualified satisfaction.

Mr. Best is a genial, modest and reliable citizen, prosperous in business, and enjoys a high reputation as a man of veracity and integrity. He has been blessed in his domestic relations, and at his hospitable home is surrounded by a most estimable wife, who has shared his fortune in adversity and prosperity, and six promising children. He is an honored member of the Ancient Order of United Workmen.

He is possessed of a high mechanical talent, and may be properly termed an inventive genius. The results that have followed his inventions and the success of his labor-saving machines and agricultural implements entitle him to rank with other great American inventors, such as Whitney, Singer and McCormick. Our artist has made a correct likeness of Mr. Best, whose name has become noted as the sagacious inventor and successful manufacturer of agricultural implements and traction engines.

## Grades All Kinds of Fruit.

For a decade or more, each year has shown an increasing number of acres given to fruit-tree planting on the Pacific Coast, and as each season brings into bearing many new orchards, the production of fruit, though the industry is admittedly in its infancy, has already reached a point, where the economical handling of its immense bulk has become a question of importance. Following picking, the next and most vexatious and expensive problem presenting itself to the orchardist is that of properly grading the fruit for the market. This work, formerly done by hand, has been taken up by men of enterprise and inventive genius, the result being that a number of mechanical appliances, intended to save time and labor have been placed upon the market, as a rule meeting with but indifferent success.

As an exception to this rule the "New California Fruit Grader" manufactured by Messrs. Mosher, Chandler & Co. of No. 116 Front street, this city, is attracting wide-spread attention among fruit-growers and canners. Its work at the Mechanics' Fair last fall was witnessed by a large number; and by those interested and best capable of judging, it was pronounced a decided success, both in principle and action. It was awarded the silver medal, being the highest prize given to exhibits of its class.

In bringing the machine to its present state of perfection, the manufacturers have solicited and adopted the suggestions of many practical men engaged in the fruit industry, the result being a fruit grader that grades all kinds of fruit, and gives perfect satisfaction. This fact may prove of more than ordinary interest in view of the recent action of the dryers and canners of this coast to the effect that that in the future they will charge 1/2 cent per pound for grading, or pay the producer 1/4 cent less per pound for ungraded fruit, as the California Grader will do the work at very much less cost. The advantage to be gained by its use is obvious.

Though placed upon the market less than a year ago, quite a number of these machines are in use, from numerous letters testifying strangely in their favor a couple are submitted:

KING-MORSE CANNING CO., S. F. Sep. 6, 1890.

Messrs. Mosher, Chandler & Co.—GENTLEMEN: The New California Fruit Grader you sold us on August 15th has been a pleasant surprise to us in every way. We have run it by steam power, and the accuracy and speed of its work has been a wonder to ourselves and all our help. We have easily graded from 20 to 25 tons of peaches per day in better shape than could have been done by hand, and at a very great saving of expense. The rubber band which carries the fruit along so regularly and smoothly is the best invention we have ever seen, and saves all jamming and clogging of the fruit. We most cheerfully recommend your Fruit Grader to anyone who wants a perfect machine. I remain respectfully yours, JAS. S. COWAN, Foreman.

SAN JOSE, August 26, 1890.

Messrs. Mosher, Chandler & Co. 116 Front Street, San Francisco.—GENTLEMEN: In reply to your inquiry regarding the California Fruit Graders sold us several weeks ago, I would state that they have been in continuous operation during the past month—the single grader on peaches and the double grader on French prunes. Both graders are working to our entire satisfaction and the readiness with which the canners (we send them all clings over 2 1/2 inches) accept our graded peaches is good evidence that the fruit is in no wise injured or bruised in grading. I think your machine cannot be excelled for rapid and careful grading of fruits. Very truly, ELTON R. SHAW.

Messrs. Mosher, Chandler & Co., 116 Front, St. S. F. will mail all particulars upon application.

SPECIAL attention is invited to the advertisement of the Japanese Insect Destroyer in another column. It would be well to purchase some of this preparation at once before the bugs and worms have touched your vegetables. You can obtain same by addressing the Friend Medicine Co., Gresham, Nebr.



## Breeders' Directory.

Six lines or less in this Directory at 50c per line per month.

### HORSES AND CATTLE.

P. H. MURPHY, Perkins, Sac. Co., Cal., Importer and Breeder of Shorthorn Cattle and Poland China Hogs.

M. D. HOPKINS, Petaluma, importer and dealer in Eastern registered Shorthorns, Red Polled Cattle, Holsteins, Devons and Shropshire Sheep.

PETER Saxe & Son, Lick House, San Francisco, Cal. Importers and Breeders, for past 21 years, of every variety of Cattle, Horses, Sheep and Hogs.

PERRIN STANTON, Sacramento, Cal., Importer and Breeder of Registered A. J. C. C. Jersey Cattle of the Best Strains. Stock for sale.

J. R. ROSE, Lakeville, Sonoma Co., Cal., breeder of Thoroughbred Devons, Roadsters and Draft Horses.

P. PETERSEN, Sites, Colusa Co., Importer & Breeder of registered Shorthorn Cattle. Young bulls for sale.

WILD FLOWER STOCK FARM, Fresno Co. A. Heilbron & Bro., Props., Sac. Breeders of thoroughbred strains and Cruikshank Shorthorns; also Registered Herefords; a fine lot of young bulls in each herd for sale.

CHARLES E. HUMBERT, Cloverdale, Cal., Importer and Breeder of Recorded Holstein-Friesian Cattle. Catalogues on application.

PERCHERON HORSES.—Pure bred horses and mares, all ages, and guaranteed breeders, for sale at my ranch near Lakeport, Lake Co., Cal. New catalogue now ready. Wm. B. Collier.

WILLIAM NILES, Los Angeles, Cal. Thoroughbred Registered Holstein and Jersey Cattle. None better.

T. PHILLIPS, Simi, Ventura Co., Cal. Pure Bred Percheron Horses for sale.

COOTER RANCH BREEDING FARM, Page's Station, S. F. & N. P. R. R. P. O., Penn's Grove, Sonoma Co., Cal. Willard Page, Manager. Breeders of Short Horn Cattle, English Draft Horses, Spanish Merino Sheep and Berkshire Swine.

PURE-BRED HOLSTEIN FRIESIAN Cattle for Sale. Bonnie Brae Cattle Co., Hollister, Cal.

JOHN LYNCH, Petaluma, breeder of thoroughbred Shorthorns. Young stock for sale.

J. H. WHITE, Lakeville, Sonoma Co., Cal., breeder of Registered Holstein Cattle.

### POULTRY.

CALIFORNIA POULTRY FARM, Stockton, Cal.; send for illustrated and descriptive catalogue, free.

R. G. HEAD, Napa, Importer and Breeder of Land and Water Fowls. Send for New Catalogue.

DELLWOOD POULTRY YARDS, Napa; Thoroughbred Fowls; Eggs \$2 per 13, \$5 per 39.

MADISON H. CRITCHER, Bonnie Doon, Santa Cruz Co., Cal. Thoroughbred Poultry. Settings, \$3.

JOHN McFARLING, 706 Twelfth St., Oakland, Cal., Importer and Breeder of Choice Poultry. Send for Circular. Thoroughbred Berkshire Pigs.

IF YOU KEEP ANY KIND OF FOWLS, Pet Stock, Dogs, &c., it will pay you to send your address at once to C. R. Harker, Santa Clara, Cal. You cannot afford not to do it. It will cost you but one cent and you will receive something worth ten times that.

GALT POULTRY YARDS, Galt, Sac. Co., Cal. Breed most popular varieties of thoroughbred fowls.

O. J. ALBEE, Lawrence, Cal. Pure bred poultry.

### SHEEP AND GOATS.

L. U. SHIPPEE, Stockton, Cal., importer and breeder of Spanish Merino Sheep, Durham Cattle, Jacks and Jennys & Berkshire Swine—high graded rams for sale.

FRANK BULLARD, Woodland, Cal., Importer and breeder of thoroughbred Spanish Merino Sheep. Premium band of the State. Choice rams and ewes for sale.

J. B. HOYT, Bird's Landing, Cal., Importer and Breeder of Shropshire Sheep; also breeds Cross-bred Merino and Shropshire Sheep. Rams for sale.

E. W. WOOLSEY & SON, Fulton, Cal., Importers & breeders Spanish Merino Sheep; ewes & rams for sale.

R. H. CRANE, Petaluma, Cal., breeder and importer. South Down Sheep from Illinois and England for sale.

KIRKPATRICK & WHITTAKER, Knight's Ferry, Cal., breeders of Merino Sheep. Rams for sale.

ANDREW SMITH, Redwood City, Cal.; see adv't.

### SWINE.

DELLWOOD, Napa; Thoroughbred Berkshire Pigs.

CSEPH MELVIN, Davisville, Cal., Breeder of Poland-China Hogs.

WILLIAM NILES, Los Angeles, Cal. Thoroughbred Poland-China and Berkshire Pigs. Circulars free.

TYLER BEACH, San Jose, Cal., breeder of thoroughbred Berkshire and Essex Hogs.

ANDREW SMITH, Redwood City, Cal.; see adv't.

### BEES.

APIARIAN SUPPLIES for sale by Mrs. J. D. Enas, Napa City, Cal.

**T. J. ALEXANDER,**  
VETERINARY SURGEON,

Graduate of the Ontario Veterinary College, Toronto, Canada.

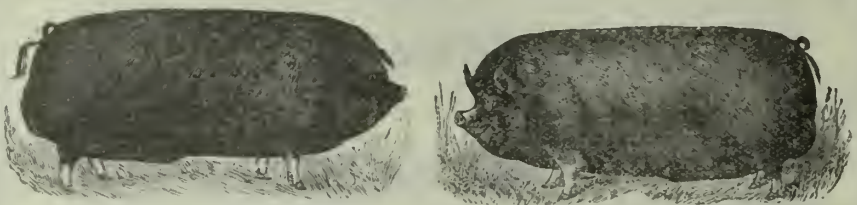
Office at Wolf's Stables, Sutter Street, Near Main, Stockton, Cal.

OFFICE TELEPHONE 37. RESIDENCE, COMMERCIAL HOTEL.

## ANDREW SMITH,

IMPORTER AND BREEDER OF THOROUGHbred

(RECORDED)



**DISHFACED BERKSHIRE PIGS,**  
**IMPROVED POLAND-CHINA PIGS,**  
**SHROPSHIRE DOWN SHEEP,**  
Young Stock for sale at reasonable prices. Every animal guaranteed.  
OFFICE—218 California St. San Francisco. REDWOOD CITY, CAL.

## IMPORTANT!

## COOPER'S SHEEP DIP.

SHOOBERT, BEALE & CO.

WHOLESALE AGENTS.



REDUCTION IN PRICE

From \$20 to \$16 a case, owing to lower duty under McKinley Tariff Bill.

**SCHOOBERT, BEALE & CO.,**  
Wool Commission Merchants, and Agents for the Sale of all kinds of Live Stock.  
307 CALIFORNIA STREET, SAN FRANCISCO. P. O. BOX 2079.

## Whitewashing Machines & Tree Cleansers.

Complete Outfits at prices from \$3 to \$50.

The Pumps are all BRASS, with BRASS and RUBBER VALVES.

**For Orchardists, Florists, Stockmen, Poultry Raisers**  
**THERE IS NOTHING LIKE THEM.**

Pump sent complete as in cut for \$14. Send for Illustrated Catalogue.

**WAINWRIGHT SPRAYING APPARATUS CO., 1409 Jackson St., S. F.**  
Contracts taken for Large Jobs of Whitewashing.



## Little's Chemical Fluid Non-Poisonous SHEEP DIP.

BEWARE OF OHEAP IMITATIONS.

One gallon, mixed with 60 gallons of cold water, will dip thoroughly 190 sheep, at a cost of one cent each. Easily applied; a nourisher of wool; a certain cure for SCAB. Also

**Little's Patent Powder Dip.**

(POISONOUS.)  
Mixes instantly with water. Prevents the fly from striking. In a two-pound package there is sufficient to dip 20 sheep, and in a seven-pound package there is sufficient to dip 100 sheep.

**CATTON, BELL & CO.,**

(Successors to FALKNER, BELL & CO.)

NO. 406 CALIFORNIA STREET. SAN FRANCISCO, CAL.



**MANHATTAN STOCK FOOD.**  
Saves One-Quarter of Grain Feed.

**FRAUDULENT PARTIES** have been selling an article, claiming theirs to be the same, and in order to mislead, have added a prefix to "Manhattan." Our genuine food is called simple "Manhattan Food," with the Red Ball Brand.

623 Howard St., San Francisco, Cal.

## PURE SEEDS

**TRUMBULL, STREAN & ALLEN**  
SEED CO.,  
Grass, Field, Garden and Tree Seeds, Onion Sets, Etc.  
Send for Catalogue. Mailed Free.  
1489-1493 St. Louis Ave., KANSAS CITY, MO.

## COLTS BROKEN.

THE SOUTHER FARM,

One and a half miles northeast of San Leandro, Alameda County, has every facility for Breaking Colts properly. Rates very reasonable. Horses boarded at all times.

THE SOUTHER FARM,

GILBERT TOMPKINS, Proprietor,  
P. O. Box 149, San Leandro, Cal

## DR. A. E. BUZARD, VETERINARY SURGEON,

Member of the Royal College of Veterinary Surgeons, London, England.

GRADUATED APRIL 22, 1870.

Advice by Mail, \$2.

OFFICE AND PHARMACY:

No. 11 Seventh St., near Market, San Francisco, Cal.  
Open Day and Night. Telephone, No. 3849.

## BADEN FARM HERD.

Short Horn Cattle and Draft Horses.

Catalogues and Prices on application to

ROBERT ASHBURNER,

Baden Station, - San Mateo Co., Cal.

**G. W. DIMICK,**  
BREEDER OF REGISTERED  
Shorthorn, Aberdeen-Angus  
and Jersey Cattle.  
Young Stock for Sale. Correspondence  
Solicited. G. W. DIMICK, Hubbard, Oregon.



## WHEN YOU BUY,

—BUY—

THE BEST!

—THE—

## H. H. H. Horse Liniment

Is certainly the best preparation of its kind in the market. Ranchers, Stock Raisers and Horse Owners of every description will tell you that it does good work every time.

**MEMORANDUM.** H. H. MOORE & SONS, Stockton, Cal.—GENTLEMEN: In answer to your inquiry, would state that I used your H. H. H. Liniment on my Holland prize-winning cow, "Lena Menlo," for a wrenched shoulder, and it relieved her very much. She calved the next day, and while still suffering from the sprain gave the largest authenticated quantity of milk ever given on this coast (104 gallons per day), showing conclusively the great relief received from your remedy. I consider it a necessity in my stables, and when away from home feel perfectly safe, as inexperienced men can do no harm with it, as they can with the more powerful blisters. Respectfully yours,  
BREEDER OF REGISTERED HOLSTEINS AND BERKSHIRES.  
Menlo Park, Cal., January 22d, 1893.

MANUFACTURED BY  
**H. H. MOORE & SONS,**  
THE DRUGGISTS,  
248 MAIN STREET, STOCKTON, CAL.

## POULTRY, ETC.

THIS

OLD WOMAN

WHO

Lived in a Shoe

Has made her fortune in the

Chicken Business



To find out how she did it send 8c in stamps for 80-page colored catalogue of incubators, Thoroughbred Poultry and Poultry appliances to the

**PACIFIC INCUBATOR CO.,**  
1317 Castro Street, Oakland, Cal.

## DROP IT



formation than is given in many 25-cent books. Sent to any address on receipt of four cents in stamps.

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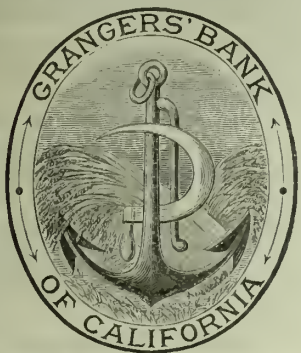
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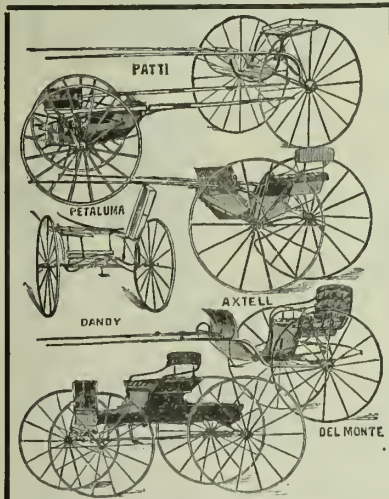
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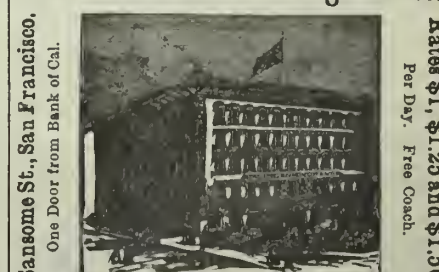
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Strawberries, Chest			8" x 8" Squash lb	8	10
Choice to extra	9 00	10 00	" Cucumbers, doz	50	90
do fair to good	5 00	8 00	" Rhubarb, h.x...	35	60
Cherries, box...	1 00	1 25	" Peas gr'n com sk	25	45
" VEGETABLES			" do do sweet	75	1 50
Okra, dry, lb....	20 @	30	String Beans, lb	6	10

\*In quoting oranges, regular sizes are given, viz. from 2 to 176 for Navels, and 126 to 226 for seedlings; odd sizes 50 cents to \$1 @ box less.

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## Rope.

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Baling, Duplex, lb.....	8
" Manilla, lb.....	12
" mixed.....	13
Twine, for hops, hails, tarred, lb, Manilla...	14
" grape vine, hails, lb.....	134
" oalls, lb.....	134
" spritz, lb.....	134
" binder (650 ft. to lb), lb.....	15
Duplex twine 3c per lb less.	



PACIFIC COAST WEATHER FOR THE WEEK.

[Furnished for publication in this paper by officer in charge of branch Signal office, Division of the Pacific.

DATE.	Olympia.	Portland.	Eureka.	Red Bluff.	Sacramento.	S. Francisco.	Fresno.	Keeler.	Los Angeles.	San Diego.
April 29-May 5.	Rain.	Temp.	Wind.	Weather.	Rain.	Temp.	Wind.	Weather.	Rain.	Temp.
W.	.06	54	W	Cy.	.00	60	N	Cl.	.00	54
T.	.00	54	N	Cy.	.00	68	NE	Cl.	.00	56
F.	.01	58	N	Cl.	.00	70	NW	Cl.	.00	60
S.	.00	68	NE	Cl.	.00	80	S	Cy.	.00	62
M.	.28	62	N	Cy.	.06	70	SW	Cy.	.00	64
W.	.60	54	S	Rn.	.16	58	S	Cy.	.28	56
T.	.32	54	NW	Rn.	.16	58	S	Cy.	.28	56
...	1.27	...	...	...	...	...	...	...	...	...

EXPLANATION. Cl. for clear; Cy. cloudy; Fr. fair; Cm. calm; - indicates too small to measure. Temperature wind and weather at 5 P. M. (Pacific Standard time) with amount of rainfall in the preceding 24 hours. T indicates trace of rainfall. P C, partly cloudy. Rn., rain.

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—AND—  
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A Practical Treatise on the Raisin Grapes,  
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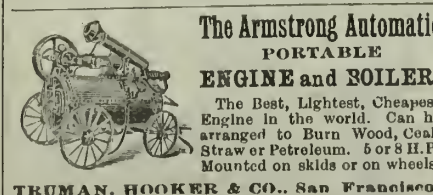
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**ANALYSIS OF AN ECHO.**—To obtain, so to speak, an articulate echo, one that shall be a clear and exact repetition instead of a confused resounding of the speaker's utterance, requires that the speech shall be accurately timed in its delivery. An ingenious calculator has lately reduced the matter to an exact statement, based on the assumption that not more than five syllables per second can be distinctly uttered and clearly heard. The sound of each syllable has thus one-fifth of a second in which to reach the reflecting surface and to be returned by the echo, before the next syllable is pronounced. Taking the velocity of a sound at 1120 feet per second, the syllable can make a round trip of 224 feet in the one-fifth of a second which is allowed it; and the reflecting surface must therefore be at half that distance, or 112 feet. For obvious reasons, however, the combined effort of articulation and attention in such minute subdivisions of a second is scarcely possible in practice. The rule would seem to be more satisfactorily tested by the utterance in one second of five syllables in succession, followed by a pause of equal length. If the echo is 560 feet distant, the first syllable of the five will then return just as the last one has been spoken; and the last one will arrive just before the first of the next series starts upon its journey.

**THE CENTER OF POPULATION.**—The center of of population of the United States on June 1, 1890, as given by census bulletin No. 34, was in latitude 39° 11' 56", longitude 85° 32' 53", being a little east of Greensburg, Ind. The closeness with which the center of population, through such rapid westward movement as has been recorded, has clung to the parallel of 39° of latitude is very noticeable. The most northern point reached was at the start, in 1790; the most southern point was in 1830, the preceding decade having witnessed a rapid development of population in the Southwest; Alabama, Arkansas, Mississippi, and Louisiana having been admitted as States and Florida annexed and organized as a Territory. The extreme variation in latitude has been less than 19 minutes, while the hundred years of record have accomplished a movement of longitude of nearly 9.5 degrees. Assuming the westward movement of the center of population to have been uniformly along the parallel of 39° of latitude, the westward movement of the several decades has been as follows: 1790-1800, 41 miles; 1800-1810, 36 miles; 1810-1820, 50 miles; 1820-1830, 39 miles; 1830-1840, 55 miles; 1840-1850, 55 miles; 1850-1860, 81 miles; 1860-1870, 42 miles; 1870-1880, 58 miles; and 1880-1890, 48 miles, a total westward movement of 505 miles in 100 years.—*Railway Review.*

**PECULIARITIES OF IRON.**—Add carbon to pure iron and it becomes steel. Add a hydrocarbon to iron, and steel itself becomes so extensively modified that its properties are not recognizable. Thus steel may be as soft as pure iron. Add hydrogen, in varying quantity, and it has the quality of resilience, as in watch spring, or the quality of tenacity, as in the knife or razor, or may be given nearly the hardness of a diamond, as in a file. With steel at a low temperature, from 400° to 450° F., edge tools are produced, the color in the yellow shades; from 500° to 525° various sorts of springs are produced, color blue; while by heating iron to whiteness and plunging it into water, which is mainly composed of hydrogen, files are produced or forms even harder.

**Mamma** (to her little boy). "Now, Bennie, if you'll be good and go to sleep, mamma'll give you one of Dr. Ayer's nice sugar-coated Cathartic Pills, next time you need medicine." Bennie, smiling sweetly, dropped off to sleep at once.

**BIRDS.**—An American naturalist has made up a list of 210 birds, which are indigenous to Alaska, but alas! the English sparrow is not among them, and the people of that land cannot be blamed for declaring that the United States has no real sentimental interest in them.

#### NEWSPAPER AGENTS WANTED.

Extra inducements will be offered for a few active canvassers who will give their whole attention (for a while at least) to soliciting subscriptions and advertisements for this journal and other first-class popular newspapers. Apply soon, or address this office, giving address, age, experience and reference. Special inducements to old agents.

DEWEY & CO., Publishers,  
No. 220 Market St., S. F.

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Should this paper be received by any subscriber who does not want it, or beyond the time he intends to pay for it, let him not fail to write us direct to stop it. A postal card (postage one cent only) will suffice. We will not knowingly send the paper to any one who does not wish it, but if it is continued, through the failure of the subscriber to notify us to discontinue it, or some irresponsible party requested to stop it, we shall positively demand payment for the time it is sent. LOOK CAREFULLY AT THE LABEL ON YOUR PAPER.

#### Unitarian Literature

Sent free by the CHANNING AUXILIARY of the First Unitarian Church, cor. Geary and Franklin Sts., San Francisco. Address Mrs. B. F. Giddings as above.

PLEASANTON seems a charming rural town. The Rose hotel, we understand, will accommodate many summer boarders, and at very reasonable rates.

## Good News!

No one, who is willing to adopt the right course, need be long afflicted with boils, carbuncles, pimples, or other cutaneous eruptions. These are the results of Nature's efforts to expel poisonous and effete matter from the blood, and show plainly that the system is ridding itself through the skin of impurities which it was the legitimate work of the liver and kidneys to remove. To restore these organs to their proper functions, Ayer's Sarsaparilla is the medicine required. That no other blood-purifier can compare with it, thousands testify who have gained

## Freedom

from the tyranny of depraved blood by the use of this medicine.

"For nine years I was afflicted with a skin disease that did not yield to any remedy until a friend advised me to try Ayer's Sarsaparilla. With the use of this medicine the complaint disappeared. It is my belief that no other blood medicine could have effected so rapid and complete a cure."—Andres D. Garcia, C. Victoria, Tamaulipas, Mexico. "My face, for years, was covered with pimples and humors, for which I could find no remedy till I began to take Ayer's Sarsaparilla. Three bottles of this great blood medicine effected a thorough cure. I confidently recommend it to all suffering from similar troubles."—M. Parker, Concord, Vt.

## Ayer's Sarsaparilla,

PREPARED BY

DR. J. C. AYER & CO., Lowell, Mass.  
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The attention of the public is called to this Scraper and the many varieties of work of which it is capable, such as Railroad Work, Irrigation Ditches, Levee Building, Leveling Land, Road Making, etc.

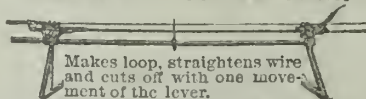
This implement will take up and carry its load to any desired distance. It will distribute the dirt evenly or deposit its load in bulk as desired. It will do the work of Scraper, Grader, and Carrier. Thousands of these Scrapers are in use in all parts of the country.

This Scraper is all steel—the only one manufactured in the State.

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Self-adjusting Wire Reel. Best in the world. Takes any size coil.

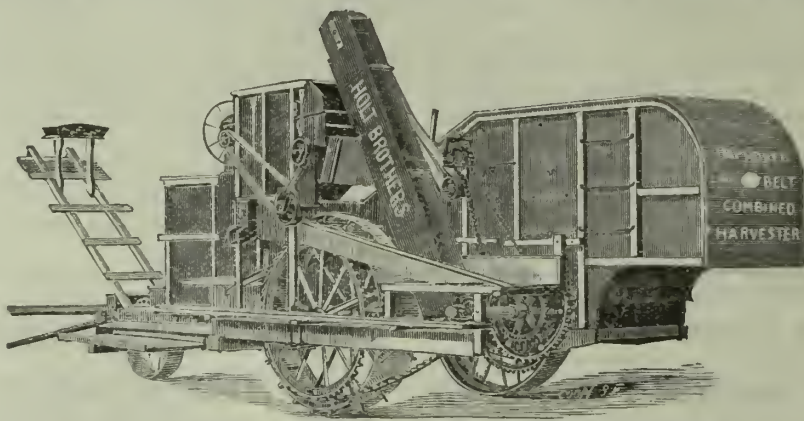
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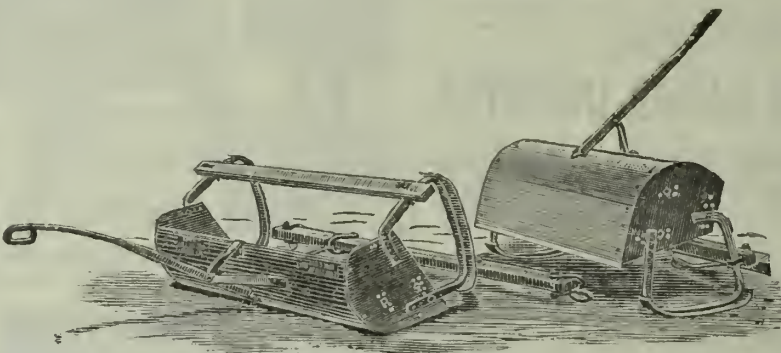
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For Efficiency, Durability, Light Draft and Fine Work It is Far Superior to any other Harvester of the Present Day.

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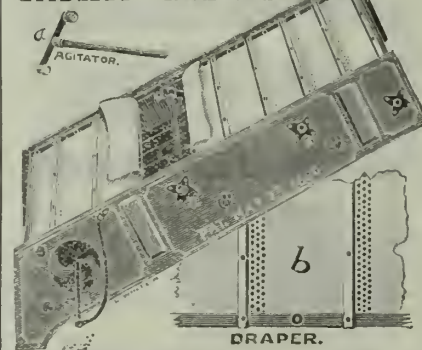
MR. JAS. PORTEOUS, Fresno, Cal.—DEAR SIR: In answer to yours of 6th inst., will say that I have found your new style four-horse Scraper the best all-round Scraper I have yet tried. Respectfully yours, J. W. SCHMITZ, Supt. Miller & Lux.

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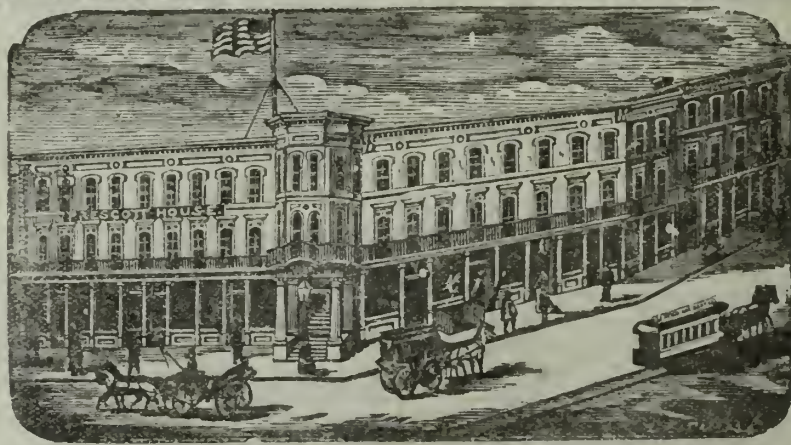
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For Combined Harvesters.

No Need of Wasting Grain.  
No Need of Scattering Foul Seed over the Ground.  
No Need of Choking Machine with Green Weeds.  
Impossible to Blow Grain Over.  
As they must be made to fit each machine, please write at once.

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Apple, Almonds, Pear, Plum, Prune, Apricot and Cherry.

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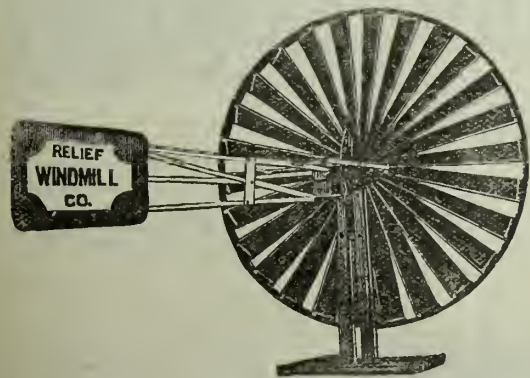
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RELIABLE!  
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Over 5000 in Use!

IT COMBINES SIMPLICITY  
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It is used for County work by the  
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Our Irrigating Wind Mills of large size, with 20 to 30 foot wheels, manufactured to order. Deep-Well Abbott Pumps, Tanks, Casks, Spring Towers, Water Troughs and Irrigating Outfits. Send for Our Circular.

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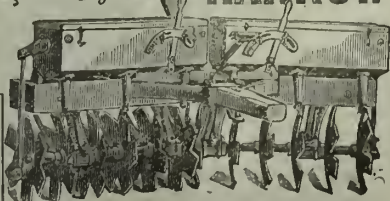
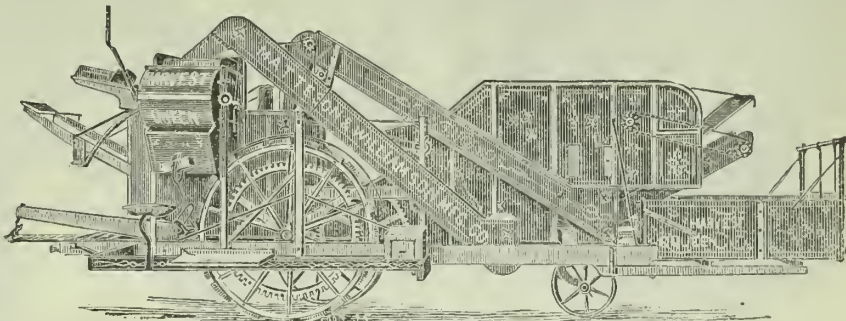
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POSITIVE IN ITS ACTION AND  
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SOLE MANUFACTURERS HIGGANUM, CONN.  
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The Harvest Queen  
COMBINED HARVESTER.

The Lightest Draft Harvester in the Market.

ENDORSED BY ALL FARMERS AND RANCHERS. SATISFACTION  
GUARANTEED. NONE EVER RETURNED.

## POINTS OF MERIT:

FIRST—Having two pivot wheels on the ground enables it to turn square corners like a mowing machine.  
SECOND—All of the frame work about the cylinder is the best of oak lined with sheet steel and put on with screws. Other parts built of the best of material and painted inside and out.  
THIRD—The driver is NOT isolated by a ladder from the machine, but is safely seated on the separator where he can hear and see the working of the machine and drive to suit.  
FOURTH—The new cleaner put on last season works perfectly.  
FIFTH—The machine is so geared that the cleaner, separator or header can be started independently of each other.  
SIXTH—The header is portable. By the use of our supplemental truck we can pass a 16-foot header through a 12-foot gate.  
SEVENTH—The shaftings are all made of steel.

SIZES, 10 TO 16 FEET.

Send for Price List.

With all our Machines we furnish Straw Dump and Header Truck separate from Machine. Machines delivered on board cars or boat.

## The Matteson &amp; Williamson Mfg. Co.,

MANUFACTURERS OF ALL KINDS OF AGRICULTURAL IMPLEMENTS,

Office and Works, - - - - No. 370 Main Street, STOCKTON, CAL.

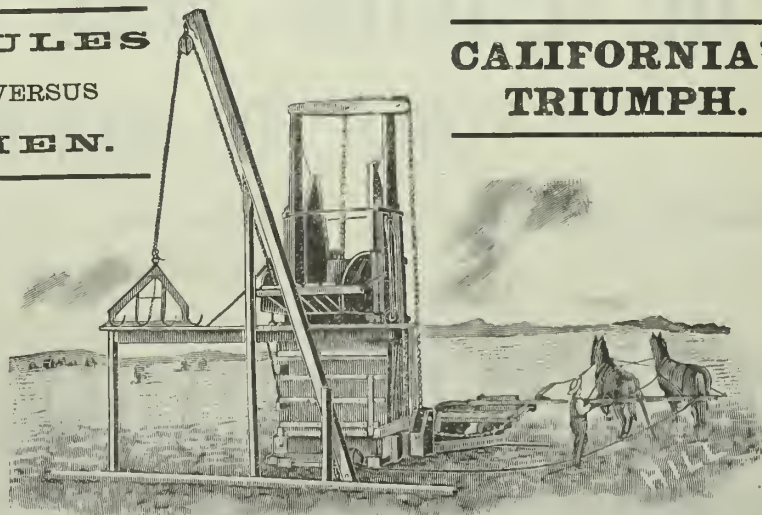
HILL'S IMPROVED  
LIGHTNING BALER.

Capacity, 32 Tons per Day.

AWARDED FIRST PREMIUM BY THE CALIFORNIA STATE AGRICULTURAL  
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MULES  
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CALIFORNIA'S  
TRIUMPH.



No tramping. No forking from the stack. No cutting of stacks necessary. You can sit at a hundred-foot stack and bale it without a move. It makes the best bale in the market. You can put ten tons in a car. The forking from the stack is all done by the horses. The Baler can turn out more hay in less time and better style than any other Press. Here is one of the recent endorsements of this wonderful machine:

J. F. HILL—Dear Sir: We baled on James Ryan's Ranch on the Cosumnes, one mile from the Slough House, 277 bales of alfalfa hay, that weighed 32 tons and 35 pounds, with one of your Lightning hay presses on the 21st day of July, 1890. Yours respectfully,

CONNOR &amp; ANDERSON.

—MANUFACTURED BY—

## Pacific Wheel and Carriage Works

J. F. HILL, Proprietor,

Office and Factories, Nos. 1301 to 1323 J St., SACRAMENTO, CAL.

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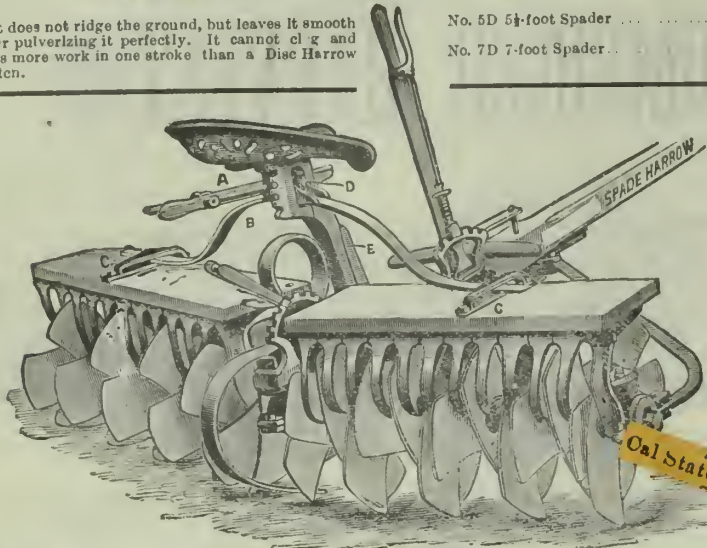


# STOP! LOOK!! EXAMINE!!! THE ORIGINAL BUCKEYE MOWER.

## SOMETHING NEW.

It does not ridge the ground, but leaves it smooth after pulverizing it perfectly. It cannot clog and does more work in one stroke than a Disc Harrow in ten.

No. 5D 5½-foot Spader ..... \$50 00  
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## PACIFIC SPADER AND VINEYARD CULTIVATOR. PATENT COMBINED ROTARY PLOW

THE BEST IMPLEMENT OF ITS CLASS EVER PRODUCED.

FRESNO, May 5th, 1891.  
MESSRS. TRUMAN, HOOKER & CO., Fresno, Cal.—Gentlemen: The "Pacific" Spader purchased from you recently I have thoroughly tested to my entire satisfaction. It cuts deep, completely pulverizes and is not heavy on the team. I am working 150 acres raisin vineyard and would not be without this implement under any consideration. You can highly recommend it to your customers. Yours very truly,  
D. GRAHAM WHIDLEN.

BOROEN FARM, MADERA, FRESNO CO., CAL., Feb. 28, 1891.  
MESSRS. TRUMAN, HOOKER & CO., San Francisco, Cal.—Gentlemen: In answer to your recent favor, will say I am using the Pacific Spader (bought at your Fresno house) on some newly plowed alfalfa land, and cannot speak too highly in its praise. This land was turned up in heavy sods, but the Spader reduced them in a way that gives me entire satisfaction. I expect to call upon you next week. Very truly yours,  
W. H. WERFIELD.

CUNCO, March 18th, 1891.  
MESSRS. TRUMAN, HOOKER & CO., San Francisco, Cal.—Gentlemen: I am in receipt of your favor of the 10th inst., and in reply desire to say, that so far as tried the Pacific Spader recently shipped me has proved eminently satisfactory. I am quite sure it is going to make a very useful implement. Very truly yours,  
JOHN BIDWELL.

Send for our No. 16—1891 Catalogue just issued.

**SAN FRANCISCO TRUMAN, HOOKER & CO. FRESNO.**

# Pacific Gas Engine Co.

230 FREMONT STREET,

SAN FRANCISCO, CAL.

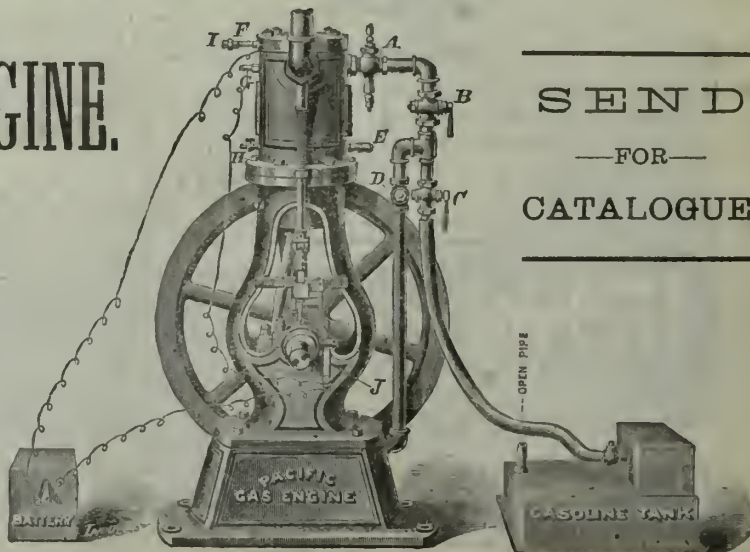
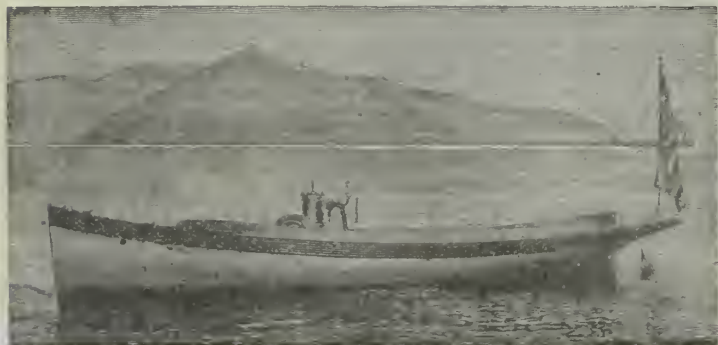
— MANUFACTURERS OF —

## The Pacific Gas or Gasoline Engine.

OVER 300 NOW IN ACTUAL OPERATION

Pumping Water, Running Cream Separators, Printing Presses,  
Launches, Etc., Etc., Etc.

## THE ONLY ABSOLUTELY SAFE BOAT ENGINE.



SEND  
—FOR—  
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ASK FOR THE  
ORIGINAL  
BUCKEYE  
MOWER  
AND TAKE NO  
OTHER.

4½-foot cut.....\$70 5-foot cut.....\$75  
4½-foot cut.....70 6-foot cut.....80

The Original and Only BUCKEYE on the Coast.

It has an adjustable Pitman head. It has a takeup for the eye of the knife and relieves the friction; a great advantage over machines with ball joints or swivel connecting rods. THE BUCKEYE MOWER IS FAR AHEAD OF ANY OTHER MOWER. It is the Lightest, Simplest, Strongest and most Durable mower manufactured. Write us early and secure territory. AGENTS WANTED IN EVERY SECTION OF THE COUNTRY. EVERY ONE GUARANTEED.

IT IS THE  
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MOWER  
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EVERY ONE  
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# PACIFIC RURAL PRESS

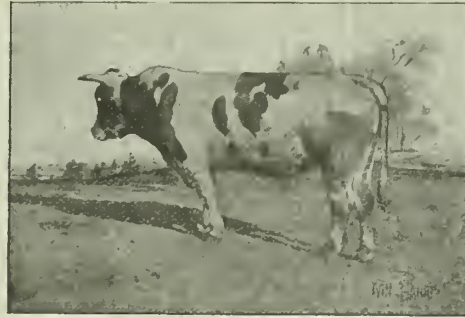
Vol. XLI.—No. 20.

SAN FRANCISCO, SATURDAY, MAY 16, 1891.

DEWEY & CO., Publishers,  
Office, 220 Market St.

## California Dairy Scenes.

The photographer has been kept so busy upon landscapes, to illustrate the peerless California scenery, and upon trees and vines, to set forth the great horticultural resources and industries of the State that the camera has not caught many scenes illustrative of our other industries. Our animal industries and their environment do, however, present many charming subjects, and no doubt in the future more attention will be paid to them both by photographer and engraver. The *Overland Monthly* of this city has with commendable enterprise undertaken to present a series of industrial articles, and thus extend the knowledge of our open-air industrial affairs among people who expend their activities in other directions,



A PAIR OF EVERY-DAY HOLSTEINS.

acreage, and bringing to the owner a weight of out forage which makes paltry the mowing of coast hayfields. To the alfalfa dairyman, there come dreams of abundance which cause him to pity his coast brother, and naught save the heat and flies to admonish him that paradise is better than his quarter-section.

The dairy-house shown in the picture is one of the most picturesque we have seen. Its angles must have perplexed the carpenter as much as they pleased the owner. The display of utensils bleaching in the sun,

good young animal can be obtained for two figures, there seems no longer any reason for clinging to scrub stock.

The two largest pictures upon this page are illustrative of two extremes in the line of California dairy pastures. One is a picturesque hillside pasture near the coast, with its rich herbage and its natural wealth of fragrant shrubs and handsome trees but partly cleared. In the cool, moist air of the coast, the growth of forage continues late in the season, and though the feed produced is small in amount as compared with the alfalfa product on irrigated lands of the interior, the land is cheap, the feed fragrant and fitted for the highest quality of dairy goods, and the conditions such that the coast dairyman is content with his lot, except when the rush of bogus products robs him of his rightful reward.

Quite in contrast with this picture is the pasture scene in the San Joaquin valley. Here we have the vast treeless and shrubless plain reclaimed from aridity by the water flowing from the artesian well in the foreground. A few years ago, it was an abomination of desolation, inhospitable even to the lonely herder who drowned and dreamed away his sanity upon it. Now, by the vivifying water, it has become an expanse of verdure, capable of maintaining many times the population of coast

the environment of trees which no doubt give partial shade perhaps from the afternoon sun and the situation and building generally must have attracted the wandering camera devotee.

WASHINGTON WILL TELL US WHAT TO DO. A Washington dispatch to the *Examiner* credits one of the officials of the Department of Agriculture with this statement: "Numerous inquiries are received at the department from the Pacific Coast, asking for a list of agricultural products now imported, which the department thinks can be successfully produced in California. This list, which will require careful study and examination, will be produced soon by the department, and be of vast interest to farmers throughout California."

A SERRA MONUMENT.—It is announced from Monterey that the Junipero Serra monument furnished by Senator Stanford will be completed in about ten days. The dedication will take place on June 31, the one hundred and twenty-first anniversary of Junipero Serra's landing. There will be a procession in which Mr. and Mrs. Stanford, the Society of California Pioneers, the Native Sons of the Golden West, the Young Men's Institute and other organizations will participate.



A PICTURESQUE HILLSIDE PASTURE NEAR THE COAST

This is a desirable undertaking, and will spread the fame of our agriculture, both among Californians engaged in other pursuits, and carry a knowledge of it to most distant parts. The attractive pictures on this page are drawn from the *Overland's* portfolio, and were among those used to illustrate the first article on "California Dairying," which appeared in the April

number. To people who entertain doubts about the accuracy of the outlines of ordinary live-stock engravings, which are often thought to represent the breeder's ideal rather than his attainment, the little photographs will represent the Holstein cattle as they appear in their actual, every-day dairy life. The cattle represented are only good fair specimens of the common run of Holsteins, such as can now be had at very reasonable prices, and are a decided improvement upon the common dairy stock of the country. California's experience with this breed has been very satisfactory, and there is now no reason why the breed, and, in fact, all the improved breeds should not become the rule instead of the exception. Not every one can pay four figures for a fancy animal, but now that a



AN ANGULAR MILKHOUSE.



A TYPICAL PASTURE SCENE AT THE ARTESIAN BELT.



## THE DAIRY.

## Proposed Meeting of Dairymen.

EDITORS PRESS:—In your issue of May 23, I read with pleasure your timely edition on a proposed meeting of dairymen, to be held on June 1st, next. It seems to me that California dairymen should hold such a meeting, and that they should organize for self-protection, and in so organizing they should have the hearty co-operation and support, not only of the consumers of dairy products but reputable dealers also, for both classes are seriously affected.

That bogus butter is sold in this State, in defiance to the U. S. Revenue law, there seems to be little doubt, and with the facilities employed by the Revenue Collector, he can hardly be expected to detect every package of butterine that comes into the State, disguised under the brands of creamery, or dairy butter. During the past four or five months I have watched the butter market of the Central Western States, and from reliable information, am satisfied that the makers of bogus butter in Chicago (that city being the headquarters of the manufacturers of the bogus stuff,) have manipulated the market, forcing up the price of the genuine article that they might find a more ready sale for their adulterated product, which in former years they brazenly called "the poor man's butter."

The dairymen of California are suffering from the sale of bogus butter; they should thoroughly organize, and then, in the absence of a wholesome State law, assist the Internal Revenue Collector in detecting the bogus stuff. Does any one know how many retailers have taken out a license to sell oleomargarine or butterine? If not, it is time the matter was looked into. How often are consumers swindled when they go to the grocery and call for and pay for butter, and receive in lieu thereof a bogus article made of questionable compounds which have been declared injurious to the human stomach by many of the best chemists and physicians of the land?

Several years ago the French Government, after careful analysis, decided that oleomargarine was so unwholesome that it should not be used in the orphanage hospitals of that country. France protects her paupers, but in this country we make but a feeble attempt to protect the health of our people. Butterine is perhaps more injurious to health than oleomargarine. Five or six years ago it was clearly proven that the fat of hogs that died of cholera, as well as of those smothered in transit to the leading markets, was used in its manufacture. Men who will sell an article fraudulently will not hesitate to use deleterious substances in its compounding.

The consumer is virtually interested in this matter, and commission merchants who have regard for their business reputation ought to be.

Besides bogus butter, there is bogus cheese. In some of the dairy States where cheese is made, the milk, after standing 24, 36 or 48 hours, is skimmed and the skim milk, after having neutral oil added, is made into cheese, which is marketed as full cream. It is well made and almost deceives the very elect. No doubt much of this cheese is sold on this coast.

As to the proposition that the dairymen establish a central depot for the sale of their product, it seems to be a good one. At Elgin, Ill., there is a Dairy Board of Trade, which was organized in 1872. I have received report of the yearly business of that organization for 1890, and find the sales of butter for that year to be 24,701,492 pounds, and of cheese 5,032,400 pounds. Since the board was organized, the total sales of butter and cheese have been 237,500,000 pounds, and it has been effected at a cost of about \$3 per year to each member. When the board was first organized, there were only 12 cheese factories and creameries that availed themselves of its office; now there are 221 of these factories and creameries interested in it and make their sales through it. Since the board was organized, the manufacturers have not paid one cent to commission merchants to handle the product. The latter, coming from the leading cities of the country, attend the weekly meetings, buy direct from the manufacturer and obey such rules as the board has adopted. So important has the Butter and Cheese Board of Trade of this little inland city become, that it rules the New York market for butter, at least, as much as it does in the town where located.

For ten years I was the secretary of this board, as well as secretary of the Illinois State Dairymen's Association, and the Northwestern Dairymen's Association, and learned the ups and downs of the dairymen, and the means they employed to protect themselves and the consumers.

In some 18 or 20 States, the dairymen have State associations, strong in numbers, and therefore a power for good. They hold annual meetings in which are discussed topics of great value to them, and if they desire a State law, or a national law, as when the Oleomargarine law was passed by Congress, they are organized and ready for the fray. Oregon, I believe, has a State Dairy Association that is doing much good for the dairymen of that State, and now why not California? Surely the dairy interest is of sufficient importance to have a strong, useful organization, and I hope the RURAL

PRESS will continue to agitate the question, until the proposed meeting is held. Let the dairymen who attended the recent meeting, issue a call, properly signed, and I believe there will be a general response to it, for the time has come when action should be had. Delays are dangerous. R. P. MCGILINCY, Campbell, Cal.

[Col. McGilincy is an old and experienced worker in dairy organization, and we are glad to hear from him on this subject. It is important, as he suggests, that a call be issued, signed by reputable dairymen, and we hope it will not be delayed. Unless this is done we hardly expect that much attention will be paid to the announcement. Such a call need not be published, if there is objection to it. It may be mailed to dairymen in each neighborhood, but there should be some indication as to who backs the intended movement.—EDS. PRESS]

## Humboldt County Creameries.

W. A., writing for the Eureka Watchman, gives the following interesting information:

The creamery at Arlynda is a corporation and buys its milk of the customers, paying therefor 65 cents per 100 pounds; and if the customer wants skim milk for calves or hogs he pays 6 cents per 100 pounds. The creamery now has 25 patrons who deliver their milk daily, from which there is a weekly output of butter of 35 boxes of 100 pounds each. The milk is delivered from 6 to 8 o'clock in the evening and from 7 to 9 in the morning. A 25-horse power engine furnishes power for the various operations—the elevator, the separator, the churns, the pumps, etc. As soon as the milk begins to come in, the separators—three in number—are started. There are three large vats for receiving the cream, three large storage and packing rooms and two churns of 300 gallons capacity each. The butter is shipped twice a week to San Francisco, about 1700 pounds each shipment. About one-half the skim milk is returned to the customers at 6 cents per 100 pounds and the balance led to the hogs at the creamery. The establishment is under the management of Mr. J. F. Henley, foreman, assisted by Mr. C. D. Spencer.

The Ferndale Creamery is a co-operative enterprise, started last year by six subscribers as follows: J. Jacobson, P. J. Peterson, John Hansen, Lawrence Peterson, Peter Thomson and Peter Jacobson. The association is regularly incorporated under the laws of the State. There are eight patrons—two besides the stock-owners. The creamery is now receiving 11,000 pounds of milk daily, and through the light of the season this amount will probably be increased to 13,000 or 14,000 pounds. A ten-horse power engine furnishes the power, and the two separators do the work of separating the cream from the milk; besides these, there are three cream vats, two churns and a power butter-worker.

The creameries are all built on a general plan, with some variation as to arrangements and minor details, having in view a weighing room or tower, a separator room, cream room, and rooms for working and storage. The first operation is receiving the milk, which is delivered from wagons in large cans which contain, when full, 175 pounds of milk; the receiving and weighing room is a sort of tower, elevated 15 or 18 feet, having a derrick for hoisting the cans, which are drawn up and swung into the room and emptied into a large tank sitting upon the scales. This holds about 800 pounds, and after the weight is marked down opposite the name of the owner, is quickly discharged by a large faucet and pipe into the receiving vat in the adjoining room which will hold 600 gallons of milk. Just before starting the milk from the milk vat into the separators, the separators are speeded up to the requisite number of revolutions, some 7000 a minute, which requires several minutes to attain; when all is in readiness the milk is carried by means of a pipe and discharged downward in the bottom of the separator, a cylindrical, urn-like affair. The cream being the lightest is carried up and escapes through a small tube, while the heavier portion, or "blue milk" by reason of its specific gravity maintains a lower position, and is discharged through another tube at a point lower down in the separator. The "blue milk" thus discharged, is sweet and a novice would scarcely discern any difference between it and full cream milk. It is drawn off into a reservoir and the wagon delivering milk at the weighing room, after discharging, drives around and receives such quantity of this sweet, warm milk as he requires for feeding calves, etc., and the balance is forced by a pump to the hog pen away up the hill a quarter of a mile distant, thus located so as to keep all stench from the creamery. The cream passes into coolers, which cool the cream from the animal to the required temperature, when it is turned into large cream vats, there to slightly sour before churning.

The churns are the ordinary square churns, but the butter-worker is an innovation. It is a round table depressed in the center and revolving on a pivot, reaching from the outer edge to a sort of hub in the center, something like two adjoining spokes in a wheel; 2½ inches in diameter at the center end, and 7 inches in diameter at the outer end are two corrugated rolls or butter-workers. Both the tables and rolls are so geared as to be driven by power,

the rolls revolving in a stationary position, while the table turns under them. The butter is thrown upon this table in great lumps, passes under the rolls, and is turned and sliced in every manner by the man in attendance. A hundred-pound lot is quickly worked by the process. From 425 to 450 pounds is the daily output of butter at present.

It takes from 24 to 25 pounds of milk to make one pound of butter at this season. A couple of months later 17 to 18 pounds of milk will make one pound of butter, the grass becoming more nutritious and less watery.

The creamery is under the management of Peter Biger, assisted by Raemus Asgaard. Mr. Biger is a skillful and successful butter-maker, and the butter from this creamery has a high reputation in the San Francisco market.

The advantages of the creamery are many, and especially the co-operative creamery: 1st, by having the means of cooling the cream and regulating the temperature, a larger per cent of butter is obtained; 2d, a uniform grade of the best butter is produced; 3d, sweet milk is retained for the calves; 4th, the producer of milk has more time for his farm work, and last, but by no means least, the co-operative creamery returns to its stockowners all the profits.

The vicinity of the creamery is a busy, hustling community; nearly every one is engaged in producing milk and all seem to be thriving.

## THE FIELD.

## Changed Relations of California Farming.

The farmers of Solano county have good cause to be joyful. A fair crop is assured, and the price of wheat is higher than it has been for years. On these two things depend the success of the wheat-grower. When one fails the outlook is had enough, but should both fall the situation is deplorable indeed. There is no record of a complete failure of crops in California, but it is safe to say that the price of wheat has not been sufficiently elevated of late years to make farming a glorious success. Our tillers of the soil will do well to look about them for some use for their land other than repeated cropping to wheat and barley. There is no soil but will become exhausted by continual sowing to one kind of seed. This has been proven in all countries, on all kinds of soil. A rich loam will keep its strength longer than light sand, for the simple reason that it originally contains more of those elements necessary to the growth of vegetation, but no matter how rich the land it will lose its productiveness in time if continually sown to one thing. The course of California farming is the constant draining of the soil without putting back. Land cannot be expected to replenish itself, any more than the flour-barrel can be kept full, if nothing is added to its stock. Land may be likened, in one sense, to the human system. It is possessed of certain elements, in which lie the secret of its strength; if these be taken away by over-tasking, and it be given no chance to recuperate, failure is inevitable. There are places in this State, familiar to the writer, where 40 bushels per acre could once be harvested, but now it is barely possible to produce one-half that amount. Constant sowing to wheat has impoverished the soil. Wheat-growers may not realize that their land is failing, so gradually does it give away, but that they will in time be forced to acknowledge it is as certain as the setting of the sun. Nature is a bountiful giver, but it is one of her inexorable laws that some return must be made. Probably no class of people recognizes and follows this law so closely as the Italian gardeners. The rotation of crops and the fertilizing of land are in their estimation as necessary to success, as sunshine and showers. That they are correct in their views is shown by the results. An Italian will cause an acre of land to produce as much as the average farmer could raise on five acres. He will sow and gather six or seven crops in one year, but he never plants cabbage after cabbage, nor turnips on land where turnips have just been taken off. He varies the crop and after every harvest manures the land in a lavish manner. The amount of labor necessary to succeed in gardening is, of course, enormous and many Italians work from 12 to 16 hours daily. This ceaseless toil would no doubt prove irksome to our native population, but Americans, from their superior intelligence and talent for using the shortest method, would accomplish as much in a less number of hours.

An old Californian, speaking on the subject of changing from wheat to other crops, said: "It would keep one working all the time." Certainly it would, but therein lies its greatest charm. Nothing can be accomplished in any venture, be it humble or great, without continued effort. There is no class of people so miserable, so restless, or so prone to mischief as the unemployed. Labor is necessary for the promotion of civilization and the protection of society. If we were to say, "Let us work no more, but live on the fruits of the earth," we might be reasonably happy, but a few decades of such indolence would lower us to the condition of savages. Labor may be rendered even pleasant by selecting tasks suitable to our various natures. Some may dislike farming—

let them try something else. Others may not be content with carpentry or blacksmithing; they should try to find that which is agreeable to them, and follow it faithfully. Farmers should teach their children to work; the day is not far distant when they will have occasion to use such knowledge. The California of today is not the El Dorado of thirty years ago, and the sooner our people realize it, the better for us all. The day of great fortunes is past and the coming generation cannot expect a revival of the gold excitement, to make them wealthy without toil. Let our farmers cut up their vast grain-fields and plant them to trees and vines; let them raise more live stock, and pay some attention to other crops than wheat. There will be pleasant and profitable employment be provided for our young people, and increased prosperity accorded to all.—S. A. Lovelace, in Dixon Tribune.

## HORTICULTURE.

## Orchard Drainage in Oregon.

The subject of underdrainage with tiles is a growing one in this State and many will be interested in what we publish below, being the chief portions of an essay read before the Oregon Horticultural Society by F. J. Beatty:

I became convinced that prunes would be a profitable crop to raise, and so I started to prepare a place for an orchard. The ground I had selected was covered with large fir brush and trees; a heavy clay loam, about eight inches black loam, about a foot of yellow clay, and then layers of clay and quicksand alternately, the layers of quicksand getting thicker gradually until about 20 feet down it is almost pure quicksand. There is a hollow running across the northwest corner, at the lowest point 18 feet below the main part of the 11 acres which is very flat, with a slope toward the hollow of about six inches in 200 to 400 feet. I found in digging around on my place that these layers of clay are not level by any means, but pitch at all kinds of angles. On the west of my place they rise toward the north. Therefore, where the surface slopes down to the north the water accumulates until it runs over the edge and then all the water remaining must be evaporated in the spring, making the ground cold and wet until quite late. I put my tile in every fourth row of trees, or 60 feet apart, with a main, 30 feet from the north side, running west. The main is down about five feet deep, on an average—one place it is six feet. The laterals average four feet in depth, with a fall of one-half inch to the rod. The main is graded to one inch fall per rod. This is the main system and drains about seven acres. Total cost, \$152. The remaining three acres I put in differently. The main here runs diagonally across to the northeast, along the brow of the hill, with laterals every 60 feet as in the others, only the laterals here come in at an acute angle. Then I put in a line parallel to this, half way down the hill, to prevent wash, and then one line along the lowest depression nearly parallel with the last, then a short line on the other slope, and this completed the job. Total cost, \$225 for 10½ acres. Results: I can plow or work the ground almost as soon after a soaking rain now as they can on the sandy soil on the river bottom, and it turns up mellow like an ash heap. My trees are about a year's growth larger than trees of the same age in the neighborhood on undrained soil. This is about all the difference that I can certify to at present, as the tile in the oldest part of the orchard has only been in two winters. I am told that there is a difference in the matter of late frosts in the matter of late frosts in the spring that sometimes makes a difference in the fruit crop of half or more, and any one can get an idea of how evaporating of water cools the soil, by dipping a hand in even warm water and holding it in the wind. Now if this water is taken out from below, the warmth of the sun is sooner taken up by the soil, and this must make some difference in the time of frosts, so the theory looks reasonable. And if this tiling should make a difference of half a crop of prunes once in ten years, I am satisfied with the investment as an insurance policy; because if this is put in right once, it is ready to work for all time. Your great-grandchildren's grandchildren will not see the end of its usefulness. In the matter of stopping surface washing during hard rains on steep grades, alone, it is of great value. I find that since putting in my tile no water runs over the surface, even during the hardest rains, where formerly there was a stream of from six to eight inches deep and a foot or more wide, washing out enough silt in one winter to cover a place of 100 square feet to the depth of seven or eight inches. This was the richest and finest of the top soil that was carried off. Now if I put on manure it will do some good, instead of being carried off toward the ocean.

Now as to the capacity of the different kinds of tile: With a fall of one inch to 100 feet, a 2½-inch tile will carry all the water that can get into 40 rods of it. If your line is 80 rods long, use 3-inch for the lower end. Any one can compute the relative capacity of tile by the old rule of finding the area of a circle; viz., multiply half the diameter by half the circumference. Thus a 3-inch tile, 1.5 x 4.5 or 6.75; a 4-inch is 2 x 6 or 12, or nearly double the capacity, and the difference only one inch of diameter. Take the same grade, and a 4-inch



tile carries about as much water as three 2½-inch or two 3-inch. My largest main is only five inches in diameter for the last 180 feet, but the increase of grade from one-half to one inch to the rod makes it carry all the water from over 400 rods of 2½ 3 and 4-inch tiles on a grade of one-half inch to the rod; and it has never been entirely full yet, though I expect after the ground gets a little more porous that it will tax the full capacity of the 5-inch main. One thing I noticed this winter was that an open ditch of three feet depth would not take the water from seven or eight feet away, yet a tile in the same field four feet down kept the water from showing on the surface at the same time, over 30 feet on each side; but this may have been caused by the layers of clay, I have mentioned, being in position to hold the water out of the open ditch. I know only the fact that it was so.

#### Method of Laying Tile.

I now lay off the lines of main and laterals by stakes, and then plow out two or three furrows each way, making the deadfurrow about as near a grade as possible, by running shallow or deep as necessary. I can get down generally about a foot this way. Then with a pointed shovel I clean out and off the high places and get as near the right grade as possible. Then come in the long tile spades 18 to 20 inches long. Stretch a line and dig first trench eight or ten inches wide, and stick the spade in full depth every time and hold the handles always at the same angle so the bottom will keep the same grade as the top. The next spade must be out the right size for the kind of tile you use, but it is as easy to cut four inches wide as any smaller size. I never use less than a four-inch blade for the bottom cut. April and May is the best time of year to put in tile here, as then there is always a little water in the ground, and thus one can cut off the high places so that the water never stands over one-fourth of an inch deep, and get a nearly perfect grade. Begin at the lower end and put in tile with a tilehook, made of three-fourths inch iron rod about 15 inches long stuck in the end of a seven-foot pole and bent at right angles. With this hook, I can stand on the top of the ground and place the tile in position better than any one can standing in the ditch and putting them in with the hands. The tile should be bedded, that is, put on about four or five inches of dirt tramped down well. Stand in the ditch to do this; use a hoe or light shovel and see that the tile is not moved out of position. To fill the ditch, I use a 14-inch plow and a V scraper. Plow up one side and down the other, two rounds. With the scraper, you can walk the horse in the furrow, and the wing of the scraper pushes the dirt into the ditch; use plow and scraper alternately, until full; costs about two cents per rod to fill, of course. The junctions of the laterals and main have to be filled up by hand for a few feet, so the horse can cross. Usual price for filling by hand, 5 to 7 cents per rod. As to depth: A man could not put in tile for me less than 40 inches deep if he was doing it for nothing and board himself. I consider four feet a good depth, with main eight inches deeper.

#### Gophers and Woolly Aphis.

EDITORS PRESS:—In your paper of February 7th is an item copied from the *Petaluma Argus* relating to the "gopher plant." I got one of the plants from a local nurseryman, and it seems to be the same as was described under the head of "Spurry or False Caper" by the late W. G. Klee in a lecture on noxious weeds, which lecture was reported in the *RURAL PRESS* a few years ago. The weed has grown near the stream in my garden for years; so have the gophers. I cannot say they have ever eaten this plant, but they killed a fig-tree near it. A few years ago castor beans were recommended to me as displeasing to the gopher. They were accordingly grown in my garden until the rodent was observed to use their roots for arhings to his burrows.

#### Woolly Aphis.

About a year ago I discovered this pest on some dozen apple trees in my orchard. The onlons thing about it was that only trees with suckers were thus affected. Not all with suckers were touched, but trees near by without suckers were free. There may be no connection between the having of both sprouts and insects. The fact is noted for the consideration of the learned. The trees were treated with ashes and with gas lime. The former were thrown through the tree and against the trunks. The authorities say gas lime may be used "sparingly." Thus, if the tree dies, it may be concluded that the owner has used enough lime to kill it or not enough to save it. I put about two quarts to a tree, spreading it on the upper side within a radius of about three feet from the trunk. The trees were small. The lime was used early in the rainy season; the ashes were used as they were made.

A recent examination shows the aphis on only two of the trees treated as above. It was found, however, on a tree at a distance, also having suckers.

WILLIAM CROSBY.

Mulfont's, Livermore.

The alleged "gopher plant" is *Euphorbia lathyrus*, with common names as given by our correspondent. Our observation has been like his, that the gophers do not begitate to eat things growing near it. We also agree on the

castor bean proposition. The woolly aphis experience is interesting. We have, however, had the best on plenty of trees which had no suckers.—EDS. PRESS.]

#### When to Plant Orange Trees.

At the Pomological Society meeting held in South Riverside the 2nd of April there was considerable discussion in regard to the proper or best time and method to set out citrus fruit trees. As a result of the discussion the following was adopted:

WHEREAS, It seems that the true methods to be made use of in planting trees of the citrus family should be made generally known for the benefit of those inexperienced in the work, it is

Resolved, That, in the opinion of this society, the spring and early summer are the season which experience has demonstrated to be best suited to their transplanting; and that it is essential to the best success that they should be moved only at a time when the buds are beginning to show signs of starting, or at the latest before the new growth shall have reached two inches in length; and in no event when the tree is dormant; and it is further

Resolved, That while such trees are being transferred from the nurseries to their places in the orchard that all exposure of the roots to the sun or a dry wind should be avoided to secure the best results; and further that the irrigating water should be applied with promptness and effectiveness, immediately upon the covering of the roots with the soil.

There is undoubtedly a greater mistake made in transplanting orange trees than any other. They have their seasons for growth and seasons for rest. They grow rapidly in late winter and early spring. Those who set orange trees out in winter should do so early enough to anticipate this winter's growth. We can show trees that were set out in January that had six inches of fresh growth. The result was that growth was all lost. The trees have been stunted and they will scarcely make up the loss during the present year, thus losing one year's growth. In order to get the trees off their hands some nursery men will tell purchasers that trees with six inches or even a foot of tender growth will live and grow all right. Yes, the tree will live and grow, but you lose the tender growth which blackens and dies and it takes from three to four months to recover from the shock, and even then is not as vigorous as before.

If you have delayed setting out orange trees and the same is true of lemon trees till the present time, better wait till they take their rest after the winter growth and begin to bud out again in the latter part of May or early in June.

There is of course a difference in different localities. But as near as South Riverside, orange groves set out in June have done much better than those put out two or three months before.

Don't listen to the man who tells you "It makes no difference when you plant trees provided you take good care of them afterward." If you do not intend to take good care of them do not plant them at all.—*Orange Herald*.

SHADING GREEN HOUSES.—There is some difficulty in choosing a shading for green-houses, as some materials wash off too quickly and others not readily enough, as in the case of the common lime-wash. A correspondent in the *Gardener's Monthly* says he has tried many materials, but all have proved unsatisfactory. He found the following, however, very useful for many other purposes besides shading: Take one pound common whiting, one ounce of the best glue, and a quarter of an ounce of bichromate of potash, called also red alum. Soak the glue the day before using, melting in a common glue-pot, and then dissolve the bichromate in warm water. Mix the materials together and thin them down to the consistency required. These, after being exposed to the light, are almost as adherent as oil paint. Of course, by reducing the proportion of bichromate, the material can be made less retentive, but a coat of this wash on the green-house will last the whole summer, and even be troublesome to wash off, not to such a degree, however, as lime-wash. It should be constantly stirred up while being used.

## THE IRRIGATOR.

### Bonds of Wright Districts.

Isador Jacoby, chairman, with W. T. Y. Schenck, John F. Kennedy, S. G. Hiiborn and W. L. Merry, comprising a special committee of the Chamber of Commerce appointed to confer with delegates from the Irrigation Convention and the State Board of Trade with reference to irrigation district bonds, have prepared the following interesting report. It was submitted to the trustees of the chamber at a special meeting on the 30th ult. and ordered presented for discussion at the regular quarterly meeting July 3d:

Your committee respectfully report that, at the conference held on 22d inst. with the delegation above named, the question of the value and sale of irrigation district bonds issued under the Wright law was fully discussed, with the following general result:

Your committee is fully satisfied and convinced that, with the proper and customary examination by the investor, or party representing him, of the prior compliance of all the conditions required by law,

and also of the character of the land which it is proposed to bond and the supply of water available, irrigation bonds issued under the Wright law are as good security and as safe an investment as any bonds issued under statutes. With this decision as a conclusion, we respectfully recommend the adoption by the honorable Board of Trustees of the following resolution:

Resolved, That the Trustees of the Chamber of Commerce of San Francisco, after careful investigation of the conditions connected therewith, are of the opinion that bonds issued by irrigation districts in the State of California under the Wright Irrigation law are a safe investment and excellent security to investors, provided the two following conditions precedent are complied with:

First—A careful investigation as to the compliance with the requirements of the law prior to the issue of said bonds.

Second—An examination of the character of the lands on which it is proposed to issue said bonds and the facility for obtaining a water supply.

With these qualifications, which should control all investments with real estate security, we can confidently recommend these bonds to capitalists as worthy of their confidence, both principal and interest being as secure as any investment can be made by legal enactment and intrinsic merit.

The *Bulletin* remarks that a growing sentiment favoring the purchase of bonds of properly organized districts is noticeable. W. H. Mills, at the last meeting of the State Board of Trade, urged the immediate attention of that body to the matter. The attorney for the San Francisco Savings Union has advised that institution that the bonds are a safe investment. It is understood that Daniel Meyer and one or two other local bankers have already made some irrigation bond purchases.

"It seems very odd," said E. A. Belcher, a local attorney, who is much interested in the legal aspect of irrigation and mining matters, "that these irrigation bonds have to be sold abroad. There are several Supreme Court decisions already upholding their legality. All the decisions have gone to the very essence of the matter, to wit., the constitutionality of the Act and the question whether districts are public corporations. In every instance it has been upheld as being so. Bankers have questioned whether a tax could be levied sufficient to hold the lands, and whether it could be collected. All this rests on the legality of the Wright Act, and that having been determined, that is the end of the matter. The bankers seem to have lost sight of all these recent rulings. There can be no trouble in properly organized districts, when they come to collect the tax, for the tax simply becomes a lien, and the collection is a mere clerical matter. The decisions of Judge Belcher in the case of *Crali vs. the Poso district* (December 15, 1890), and of Judge Beatty in the case of the *Modesto district vs. Tregea* (March 30, 1891), are very complete in covering disputed points. This carrying out of the Wright law is a grand reclamation scheme in which the State at large is interested, especially the commercial and monetary interest.

#### The Organized Districts.

According to the latest reports there are now about 30 organized districts in California, although all of these have not come into membership with the State association. The list, so far as it can be obtained, is as follows, with the location of district, acreage and bonds issued. Less than half of these districts have yet placed all their bonds, some for reasons not connected with any lack of demand for the investment:

	Area in Acres.	Bonds Issued.
Turlock, Stanislaus county.....	210,000	\$600,000
Central, Colusa.....	200,000	750,000
Poso, Kern.....	60,000	50,000
Anshelm, Orange.....	32,000	600,000
Brown's Valley, Yuba.....	44,000	110,000
Alamo, Fresno.....	12,000	.....
Alta, Fresno and Tulare.....	130,000	675,000
Escudido, San Diego.....	13,000	450,000
Spring Valley, San Diego.....	22,000	.....
Modesto, Stanislaus.....	81,500	800,000
Madera, Fresno.....	305,000	850,000
Tulare, Tulare.....	35,000	500,000
Perris, San Diego.....	18,000	442,000
Vineyard, Los Angeles.....	4,500	50,000
Orland, Colusa.....	30,000	100,000
Craft, Colusa.....	14,000	80,000
Colusa, Colusa.....	100,000	.....
Selma, Fresno.....	217,000	.....
Kern, Kern and Tulare.....	67,000	650,000
Rialto, San Bernardino.....	7,200	500,000
Citrus Belt, San Bernardino.....	13,000	800,000
Alexandria, San Bernardino.....	25,300	760,000
East Riverside, San Bernardino.....	3,000	250,000
Orange Belt, Los Angeles.....	4,500	200,000
M. rietta, San Diego.....	15,600	.....
Palmdale, Los Angeles.....	50,000	175,000
Big Rock, Los Angeles.....	31,000	400,000
Capeland, San Bernardino.....	11,000	200,000
Totals.....	1,764,600	\$10,442,000

BELTS.—When first put on, belts are always made tighter than they need to be for the work required, in order to allow for the stretching which is sure to follow. They are then run until they become too loose for efficient service and the process of overstraining and stretching is repeated. When vertical, this stretching of the belt acts directly to loosen it, and the necessity for tightening occurs more frequently than it does on horizontal belts, where the weight between pulleys maintains more or less tension in the slack side. For this reason a long horizontal belt can hardly be made to slip, without working it to destruction, while the driving power of a vertical belt depends directly upon its initial tension, and this must be carefully looked after to obtain the best results. The position in which a belt may run does not affect the size required for any given duty, but it does affect very seriously the amount of care and attention required to keep it in efficient service.

## FRUIT PRESERVATION.

### A Southern Californian's Suggestions on Drying.

If you live seven or eight miles from the market, it will pay you to dry the fruit yourself, for you cannot get ripe apricots to market in good condition farther, unless you haul them in a large wagon. If you have no spring wagon you cannot haul more than a few hundred pounds at a load; so that, if you have ten tons, it would take 35 to 40 days to haul the crop. The amount of fruit, if properly thinned, would average from six to nine to the pound, and if carefully ored would give you two tons of dried fruit. If your trees are neglected and not thinned or overbearing, the fruit will be very small, averaging from 14 to 18 to the pound, and when dried weighing 800 pounds to the ten tons green. If you had an easy time while your neighbors thinned theirs, you will have a light job hauling it off when dried, and your pocket-book will be very light, too, when you get home and settle up for putting the fruit. The cutting of large fruit will cost 18 cents per hundred, while it will cost 40 cents per hundred to out small fruit, and when the first-class fruit is dried it will bring from 10 to 15 cents a pound, while the other will sell at from 4 to 6 cents per pound, and hard to sell at that. If your fruit has been thus neglected, it will pay you to get a lot of pigs and turn them upon it in the orchard.

If you have as much as ten tons of fruit it will require 500 trays. I use redwood and pine shakes for the trays, preferring the pine, although they cost about one-third more than the others. I use four shakes to the tray, making them two feet wide and three feet long. Take 1x3 redwood or pine and rip them through the middle, cutting them two feet long. These are used for the ends of the tray. Get 6 foot lath and cut them in two for the sides. I prefer the lath ripped, as it will take only as much and is just as good. Be sure to put a lath across the middle of the tray on the inside. Next, you want 52 pieces 1x4, 16-foot lumber, which will make enough scaffolding to hold your 500 trays. Make the supporting stakes of any kind of lumber, 2½ feet high with one end out square. Drive three stakes in a straight line seven feet apart; now drive three more the same way, three feet one and a half inches apart, making 25 rows; then take the 16-foot pieces, lay them on the stakes and drive a six-penny nail in each stake, making 25 rows with a 3-foot gangway between. You will save enough in convenience of handling to pay for the scaffolds. A great many put their trays on the ground. I do not like this plan, as the dirt sticks to the bottom of the trays when you want to stack them of damp nights, falling off and softening the fruit. If the trays are not stacked the dogs and rabbits will be racing over them or perhaps a stray cow will run over them and ruin the trays and fruit. If your dried fruit has to be washed, it will hardly be fit to cook.

You will want a sulphur-box for bleaching, and it must be very tight. Make it 2½x3½ and 6 feet high. It will then hold 25 trays. It needs no bottom, but dirt should be hanked around to make it tight. A little trench is necessary for the sulphur-pan. One-half pound of French sulphur burning two hours will bleach 25 trays of fruit. Some people think sulphur is injurious to the system, but it is healthy for man and beast. It is true a great deal of fruit is spoiled by being too much of it; so is butter often spoiled by using too much salt.

The most important part in the drying of fruit is to let it get entirely ripe. Then it will be better, brighter and weigh heavier. The first two or three pickings should be very carefully made. If you pick green fruit, you will beat yourself and every one who has anything to do with it. Apricots will dry in four days if the sun shines brightly. Soak the fruit in good sacks, and before the sun is down. Then there will be no worms in the fruit. The moth comes soon after the sun goes down, depositing its eggs on the fruit, but the hot sun of the next day spoils them. Your sacked fruit should be placed so the wind will not strike it which prevents the fruit from drying out too much. The best way to grade the fruit is to do so before it is out, making it three grades, carefully removing dust or dirt.

Do not take apricots to the cannery that will run more than 11 to the pound, and in gathering, do not use a pole to knock off the fruit. Last year, much was brought to our drier gathered in that way, and we do not want thus to discourage or break up the drier, but rather encourage them to bringing good fruit. The man that dries poor fruit will stay poor, and the poor man that eats it will not get very fat. I think the man who markets this trifling fruit should be compelled to put a pound of sugar with each pound of fruit and a bottle of "pain killer" along with it, and I think growers would then take a little more pains, and the consumers a little less, with it. We cannot expect a cannery to locate with us unless we generally improve the fruit, and the very men who produce poor fruit are the ones who will cry "hard times" the loudest as they demand a second mortgage on their farms.—H. D. H., in *Pomotropic*.



## PATRONS OF HUSBANDRY.

## Our Grange Edition.

The Grange news of most general interest is given through all editions of our paper on this page. Several supplemental pages, devoted to Grange interests, are added to our Grange edition, which any subscriber can receive in lieu of the regular edition WITHOUT EXTRA COST, by addressing the publishers.

## Will Increased Money Help Us?

Suggestions by Past Master Coulter.

It is claimed, and almost universally admitted, that the volume of currency in circulation in our country is too small to subserve the convenience and best interest of the great body of our people.

Now, while I freely admit this claim, I want to suggest whether there is not some undue excitement on this subject, and a disposition on the part of some to push remedial action to the other extreme.

Prior to the election of the last Congress the contraction of the currency had occasioned serious depression in the business of the country and had become a serious burden to the debtor class, and by way of relief we were promised the free coinage of silver; but Wall street objected, and by a coalition between the "gold-bugs" of Wall street, the National banks and the "silver kings" of the West, we got that most iniquitous piece of legislation known as "The Silver Bill," which requires the Secretary of the Treasury to go into the market and buy, at the current price, 4,500,000 ounces of silver per month and lock it up in the treasury, and thus prevent it from doing its office of beneficence among the people.

Would it not have been wiser statesmanship to have required him to buy \$4,500,000 worth of whiskey and lock it up and prevent it from doing its office of damnation? In either case, \$4,500,000 would be added to the circulation, and make money more abundant; and demagogues tell the wage-winners that abundant money means higher wages, and that high wages is the summation of all earthly good.

## Do High Wages Bring the Millennium?

Now, let us see how that is. Let us see if high wages bring the millennium to the wage-winner. For what purpose does he desire wages, but that with them he may buy food and raiment and shelter and comfort and culture for himself and his loved ones? All these are the product of labor; and, just in the proportion in which the wages of labor advance or recede, just in the same proportion does the cost of all these advance or recede. This is necessarily and inevitably so, and this law always operates to the detriment of the wage-winner in every inflation or contraction of the currency.

Those who furnish the supplies for which he exchanges his wages know in advance when an inflation is coming, and put up the prices. The wage-earner discovers after awhile that his wages are inadequate to his support and begins to clamor for higher wages. His employer is relentless, and he "goes on a strike," and after weeks and months of idleness he accepts a situation at the best wages he can obtain.

When a contraction of the currency occurs the employer is the first to take notice of it. He finds it difficult to dispose of his products and begins to talk of "overproduction." Then he proposes the alternative of half time or a reduction of wages. Those who furnish the supplies for the wage-earner have bought their stock at inflation prices, and cannot afford to reduce their prices. The wage-earner again discovers that his subsistence costs more than his wages will pay, and away he goes "on a strike" again.

So it goes, and neither abundance nor scarcity of money inure to the advantage of the wage-earner, but always to his detriment.

## Increased Money on the Debtor Class.

Now, what effect will an increase of the amount of money have on the debtor class—that unfortunate class to which I have always belonged? Candor compels me to admit that, notwithstanding we are industrious and enterprising, on the whole, we are a thrifless not to say profligate set; and however much the abundance of money might stimulate our enterprise, it could scarcely have any beneficial effect on our judgment and would be quite as likely to impel us to run deeper in debt as to assist us to discharge what we already owe.

But it is claimed that more money is needed to carry on the business of the country. The business of the country is not carried on with money. It is done with checks and drafts and exchange, and the balances are settled at the clearing houses and the money lies idle in the bank vaults.

After all, are not our opportunities for prosperity as good or better when money is scarce than when it is abundant? Scarcity of money gives us low prices not only for labor but also for all its productions. When prices are low enough, we can send our productions into the markets of the world in competition with the products of every other country. It has been the high prices that have prevailed in this country during the last 30 years that has destroyed our merchant marine, but probably an infinitely more disastrous result has been the flooding of our country with a poisoning tide of pauper and criminal immigration lured hither by the promise of higher wages. S. T. COULTER.

## Grange Children's Day.

Proclaimed for Saturday, June 6th, by National Master Brigham.

DELTA, O., May 5, 1891.

To the Patrons of Husbandry of the United States of America: Pursuant to a resolution adopted at the Twenty-second Annual Session of the National Grange, I have selected the 6th day of June, A. D. 1891, as "Children's Day," and I sincerely hope that our entire Order will strive to make it one of pleasure and profit to the boys and girls who are growing to manhood and womanhood upon the farms of our country.

State Masters are requested to supplement this proclamation and to do all in their power to interest all in the exercises of the day. For good reasons State Masters may select some other day for their jurisdiction, but it is desirable that all unite upon the day named. Fraternally,

J. H. BRIGHAM,

Master of National Grange.

## The Master's Desk.

E. W. DAVIS, W. M. S. G. OF CALIFORNIA.

Unless the signs fail, the outlook for the American farmer is brighter than it has been for many years. Already the grain and fruit growers of the United States feel the effect of higher prices. The *school* which has held their faces so long is now giving place to the *smile*. Already signs of prosperity in agricultural districts are more or less manifest; but this is not all. The signs on the political horizon also indicate a newer and brighter prospect for the soil-tillers. Unless these signs are delusive, there will be a bigger demand, and in political conventions for farmers than there has been "since the war." This is to our liking. Why not let some of these thoughtful farmers turn the "wheels of State" for a while? They have been turning the wheels of machinery for a long time. Turn about is fair play.

It is said "even a liar loves a truthful person."

The death of Dr. John LeConte of the University of California removes from earth one of God's noblest men. His whole life was as pure as the spotless snow. He loved the truth; he knew how to find the truth and how to impart it. The aim of his life was to do good. He never failed. Though ripe in years, he was yet riper in all that is noble, true, elevating, man-like and Christian-like. Not one of those of us who have heard his instructive tongue—now forever on earth silenced—but will shed a scalding tear. We all loved John LeConte. He was teacher, friend, brother, parent and philosopher. He loved humanity. He loved right and dared to be right. Dear, true, beloved friend, farewell! But your advice, your love we will keep in sight forever. Sweet peace to your sleep!

If you have learned anything in the Grange tell about it in the RURAL.

The Grange is a power in this land. We must use that power with care, discretion and usefulness. Whether it be in the financial, social, political or fraternal circle, the power of the Grange, to be constant and respected, must be used in the true utilitarian spirit, viz., the greatest good to the greatest number. Just so long as the Grange continues to act intelligently, positively, cautiously, progressively and in an honest spirit toward all who want to be right and to do right, just so long will the Grange be a power for good, so strong that no enemy can undermine it and no politician can control it. Let the world know we are in this contest for self-protection and for the good that we can do, and we intend to fight it out even though it may take several summers.

We send our children to school and urge them "to study." Life is a school in which we are all pupils. Do we do the requisite amount of study to prepare us for the lessons which each day has for us?

Do you read? What do you read? These are two important questions, and every person has a right to ask them of his neighbor. Better read one book a year of the right kind and ponder it well than to read a dozen books a month of an uncertain tone. A good book not only gives healthy and valuable suggestions directly, but it stimulates to original thought and pure purpose indirectly. Don't read the flashy novel, for it will add nothing valuable nor will it suggest clear, clean and wholesome thought indirectly. Select your books as you would your friends, with due knowledge and much care! As well be seen with an unsavory person for a companion, as with an uncertain book for your leisure hours. Then ask your friend, do you read, and what do you read?

Woe be to the political party that attempts to ignore the farmer in the coming elections.

This old game of the politician to the farmer of "You take the buzzard and I will take the turkey, or, 'I will take the turkey and you take the buzzard,' is fully "played out," and the farmer don't care who knows it.

Look to the primaries, to the county convention, to the State convention, and finally be sure to look well to your ticket on election day! By so doing, farmers and others interested in industrial pursuits can be placed in official station.

That recent decision of the Interstate Commerce Commission in the State of Delaware is a grand thing for the Grange. The State Grange of the little State of Delaware filed a complaint against the railroad companies (several railroad companies) for charging excessive freight on fruits, vegetables and general truck produce. The case was fully argued by the W. M. and the W. L. of the State Grange for the complainants, and by a score of paid attorneys for the several railroad companies. After a careful review of the situation the Interstate Commerce Commissioners reduced freight rates 20 per cent on several articles and 25 per cent on all other products of the farm. Potatoes get the 25 per cent reduction. The freight reduction in one year alone will amount to more than \$1,000,000. How is that for an Order that some say is dead? How is that for a fraternity that is doing nothing? But that is done in one small State. Join the Grange, oh ye honest farmer, and learn more of its good deeds. You ought to join and help the Grange.

If you want to make some money, and at the same time help a good cause, secure a charter list for a new Grange. There is good wages to be made by an energetic person. Who is the next one to send a charter list?

Don't be surprised to learn that Merced Co. has another subordinate Grange. The heaven is working.

One of the noblest objects of the Grange is "to suppress all selfish ambition." Did you ever fully consider what those words mean? Suppress—I guess that means to "choke out." Selfish—you know what that word means, though, of course, you are not at all selfish. Ambition is a proper attribute, if it is properly studied, curbed and circumscribed. Again, then, let us strive "to suppress all selfish ambition."

Be a somebody at all times and in all places!

Graft a new thought into your tree of knowledge! Now is the time to do the work!

Floral and Memorial Day at Two Rook Grange was a grand success.

Why should not the United States Government furnish the Agricultural and Horticultural outlook by telegraph, every day, to the general public? A few thousand dollars expended in this way would be of great benefit to all classes, and it would amount to more than a little to do away with the trusts, combines, pools and syndicates that conspire to pluck both the producer and the consumer. All are willing that the law of supply and demand shall govern the price of labor as well as of products, but few believe that such law governs.

Write for the Grange Department of the RURAL PRESS. Give us all the Grange news in your vicinity. We all enjoy these short notes; they do the paper, the reader and the Order great good. Write!

## Grange and Alliance Picnic at Tulare.

EDITORS PRESS:—On Saturday morning, May 9th, the members of these Orders and their friends gathered at the beautiful Centennial Grove, two miles from town, and started in to make a day of it. At one time, Worthy Master Shoemaker counted 300 carriages on the ground. The location in a grove of oaks, which could hardly have been more suitable, had been improved by the erection of a speakers' stand, seats for audience, booth for dancing, and grounds for all sorts of games you can imagine or describe.

The Master of the Grange opened the ceremonies by a very neat, thoughtful and hospitable address of welcome, followed by a song from the Glee Club of well-trained voices. Pres. I. N. Wright of Tulare Co. Alliance responded in well chosen and forcible words. Then came the addresses of the principal speakers of the day, A. P. Roache, Overseer of the State Grange and J. L. Gilbert, Lecturer of the Alliance.

The Address of Our Overseer Was one of which every Patron should feel proud; a thoughtful statement of the aims and accomplishments of our noble Order. We have only space for a few of the points that we recall. A very grateful and feeling tribute of appreciation for the veterans who have stood by the grand old cause here through heat and cold, sunshine and storm, and who gave the State Grange such a grand welcome. From a condition of helplessness, owing to scattered forces, the Grange has a well drilled force of 28,000 Granges and 4,000,000 members. It

was organized by Masons who appreciated the benefits to be derived by such a class as our American farmers through such an Institution as they founded. They made politics and religion free, placed woman by man's side as his equal, united the North and South in ties of brotherhood, removed jealousy and systematized business. Of late, through subordinate, Pomona and State Granges represented by Legislative and Congressional Committees, they have exerted a powerful influence in the farmers' behalf upon the Silver and National Banking questions, the election of U. S. Senators by direct vote of the people, a pure ballot, the exact equality of all callings in Government favor; with their watchword "Tariff for all or tariff for none." The speaker was not inclined to condemn middlemen as our worst enemies, but rather those farmers whose vital interests are at stake, but refuse to bear any part in the burden of the conflict waged for their rights and homes. The address was thoughtful, elegant and forcible.

J. L. Gilbert, Lecturer for the Alliance. Referred very gracefully to the grand work done by the Grange, and gave us a speech bristling with points and booming with facts. Referring to eligibility for membership, he chose the first of these four classes: Tollers, who live by the sweat of their brows; dealers, who live by the sweat of others' brows; real estate men, who live by the sweat of their cheeks; tramps, who live by the sweat of their feet.

The farmer and his laborer have really no conflict of interest, but their interests conflict with those who would sell a sewing-machine costing the manufacturer \$6, to the consumer for \$50 to \$75; a mower costing \$15 to \$20, for \$50 to \$100. They conflict with those of Wall street, whose influence has reduced our circulating medium from \$52 to \$5 per capita.

In 1850, farmers owned of property 80 per cent and paid of entire taxes 80 per cent; in 1880, farmers owned of property 30 per cent and paid of entire taxes 80 per cent; in 1890, farmers owned of property 20 per cent and paid of entire taxes 80 per cent. These figures show that our only inalienable right is to pay 80 per cent of the taxes. If the old parties won't do our work, we will turn them off and hire those who will. Relief we most have. The National banking system was the confessed mistake of Chase's life. If cheap money is going to ruin people, let the Government ruin the farmers just a little, and not concentrate all their ruin upon banks and railroads. We must aim to legislate to develop no special interest save that of manhood.

Abolish rather than try to alleviate poverty. Stanford's bill was adroitly devised in the interest of large landlords. Cleveland and Lugalis are getting ready to come into the fold and Blaine is adroitly peeping through the gates. The Government should regulate transportation, and if that proves too weak to protect public interest, then own it. Australian railroads operated by Government carry laborers for one-third of a cent per mile and middle classes for one-half cent per mile. Railroads include in their capital, gifts from Government, land grants, watered stock and everything else they can think of; then vote salaries to their officers large enough to use up nearly all the net earnings and declare the balance in dividends small enough to show the public how cheaply they are doing their work.

The contraction of currency has increased the purchasing power of money and so favored capital that thirty thousand now hold a controlling interest among sixty million people. We stand now as a nation on the brink of ruin from that cause under which Rome (proudest Empire of the world) went down.

Many Alliance badges were worn by members from distant parts of the county, and a lively interest was taken.

## Caledonian Games.

These seemed to be very popular. For hours we saw the heavy weights tossing a heavy stick of timber in such a way as to have the top strike the ground as far off as possible with enough momentum to carry the lower end over and let the stick fall beyond where it struck. Throwing the heavy hammer attracted much attention. For the small boys and many not so very small, the chase of the greased pig was a drawing card. Many of them will look back for years upon the Tulare Picnic as a red-letter day in their lives. Those who tripped the "light fantastic" seemed to enjoy themselves at the booth, and we presume had a grand time at the warehouse in the evening.

Tulare, May 10th FRANK S. CHAPIN

## Sacramento Co. Pomona Grange.

The regular quarterly meeting of Sacramento Co. Pomona Grange will take place May 30, 1891, at 1 o'clock, at Granger hall Tenth and K streets, Sacramento. All fifth degree members are cordially invited to be present.

D. FLINT, Master.

A. A. KRULL, Secretary.

## Floral Reception.

EDITORS PRESS:—Waterloo Grange will give a floral reception on the evening of the 15th inst., consisting of a floral march and a short program. The Balkwell Bros. will then give a dance.

All Patrons and friends are invited to be with us without further notice. Fraternally yours,

Waterloo, May 3.



## FARMERS' ALLIANCE.

## Alliance Edition.

Subscribers can receive our FARMERS' ALLIANCE EDITION WITHOUT EXTRA COST, by applying for the same. That edition contains several supplemental pages of Alliance matter, in addition to that which appears on this page through all editions.

## Farmers' Alliance Picnic at Lodi.

[From the State Lecturer.]

Since our last writing we attended a large and enthusiastic Alliance picnic on May 6th at Lodi, San Joaquin county.

Lodi is not only noted for its large and delicious melons, but if the assemblage on the picnic grounds was a fair representation of her citizens, she surely ought to be noted for her intelligent and industrious men and women.

The morning was showery and threatened destruction to the success of the occasion, but about 11 o'clock the clouds broke away and the grand march from the hall to the grounds commenced. At first sight we were convinced of the fact that extensive and studied preparations had been made for the accommodation and comfort of the people and the success of the occasion.

The assemblage was called to order by J. A. Anderson, Pres. of Lodi Alliance, who made a few well chosen remarks, and subsequently read the program and introduced the speakers. Appropriate music was rendered by the Alliance Glee Club. The first speaker introduced was Bro. Burdette Cornell, who delivered a spirited and eloquent address of about 40 minutes duration. Bro. Cornell's address was composed mainly of statistics and the causes which led up to the organization of the F. A. & I. U., and was a fine specimen of intelligence, eloquence and earnestness. We bespeak for Bro. Cornell a successful and useful future. Next we occupied a few moments, and then came the event of the day, the address of

## President Cannon.

Bro. Cannon spoke in clear tones that could be distinctly heard over the entire audience. He dwelt largely on the firm principles and demands of the Order, and in a manner that evidenced the fact that he knew what he was talking about; and we are of the opinion that when he finished his address many of his hearers also knew what he had been talking about. Bro. Cannon's remarks were followed by a short but forcible address by Rev. —, (we regret that we are unable to give his name) of Lodi. Each address was followed by music and one or two "spicy" recitations by Lodi's little boys and girls, whose names we did not get. The audience was variously estimated at from 1200 to 1500. Dancing and the usual amusements occupied the young people the remainder of the day, while President Cannon and many of the members repaired to the hall where the secret work was exemplified. We left Lodi under the impression that the Alliance in San Joaquin county is in intelligent and prudent hands.

## The Farmers' Movement.

We fail to find in history but few instances where the quiet, submissive and conservative farmers have been revolutionary in their ideas and methods. They have submitted to a great deal of oppression and robbery.

They have been the victims again and again of injustice and wrong, but in the nature of things there is a limit to human endurance.

We find that in two great revolutions the farmers took the lead and were victorious. Writing on the subject the Tallahassee Alliance says that as far back as the year 1381 the farmers of England had but few rights, and none that were respected by the governing classes. They were oppressed until exasperated manhood was goaded to desperation, and under the leadership of Wat Tyler they sounded the tocsin of war and bid defiance to the cruel exactions of their taskmasters. This movement in the rural districts spread to the towns and cities, and the toiling masses all over England were soon handed together to resist unjust taxation and oppressive laws. The farmers, with their town allies, came together in a solid compact body and swept over the country with the terrific force of the cyclone. From county to county and from town to town they pushed their rapid march until they reached the city of London, where, in a deadly assault, they lost their leader; but the king made satisfactory concessions and acquiesced in their demands, and they dispersed and returned to their homes.

The Government ran down and tortured with the most cruel death the leaders in this revolution, but the solid fruits of the victory rested with the people. For one hundred years afterward the farmers and workmen had the use of as much land as they needed, and were permitted to meet and combine together for self-protection, just as the Farmers' Alliance and the Knights of Labor do to-day.

This era was the golden age of England. Poverty was unknown in the land. It was the golden time of peace and plenty. Afterward, in the 16th century, the money power got control of affairs, and by a similar system of concentration of wealth and contraction of the currency, as obtains in this country to-day, plunged the people into universal bankruptcy

and abject poverty, from which they are suffering unto this day.

In the 18th century the farmers inaugurated a gigantic revolution which drenched France in blood. They had for centuries past been oppressed and tyrannized over until the long pent up fires of their wrath broke through their casement of submission, and like burning Vesuvius sent death and destruction wide-spread.

The farmers and laborers of France were well organized, and in the course of a bloody carnival, brought their king and queen and thousands of their oppressors to the guillotine. Generations of suffering made them unreasonably violent, and they gave France what is known in history as the "reign of terror." Yet this revolution was a great triumph; it modified monarchical rule in every European nation and paved the way of Republican France of to-day.

These two revolutions were conducted by farmers. And when we are forced to condemn their excesses as cruel and wrong, we are mindful that in those days the people did not have the ballot to right their wrongs and were compelled to resort to force. The upheaval of the toiling masses in this country of to-day recalls the historic events to which we have referred. Our farmers and laborers, like the tillers of the soil of France and England, are groaning under the yoke of oppression, and are kept down by unjust taxation, unwise and unequal laws, and are struggling for life's breath under the tyrannical heel of Shylocks, who are, in their way, as dangerous and despicable as the feudal barons of old. But under our free American institutions the people are armed with the ballot, and realize fully the power of organized action. They understand the force of numbers and realize the power of moving as a unit. And while this great movement of the farmers is thoroughly peaceful and free from sensation and excitement, it is destined to be as sweeping and final in its work of reform as the revolutions in the past to which we have alluded.

The Alliance is a determined effort to restore the government of the people to the people. It stands upon the broad plane of equal rights to all mankind. It will win, and its triumph will be made more glorious because it will be a victory of peace, a victory of honest toil won by ballots, not by bayonets; won at the polls and not on the field of carnage.

## From Our Nebraska Farm Boy.

EDITORS PRESS:—For some time in the past, I have been asking myself the question, why this uprising of the people of the country? Why the vast assemblages of people here and there gathered to listen to the discussion of the farmers' movement? But it is not as strange as it might seem to some who are not directly connected with the movement itself. To the laborer who earns his bread by the sweat of his brow, and the producer who toils in the field for another's gain, it is the natural outgrowth of the peril of the times.

While our rapid growth may seem marvelous to some, when we come to reflect that although we live in the most intelligent age that history ever recorded, basking in the light of the 19th-century civilization, with all the modern conveniences of life, our industrial classes are poorer than ever before; when we learn that 3,000,000 of our 63,000,000 people are paupers, while 30,000 men, or about one-twentieth of one per cent of our population are in possession of (I will not say own) three-fifths of the wealth of the entire nation; when we are confronted with the fact that thousands in the streets of our great cities die every year of starvation, while granaries are bursting with golden grain, and thousands of others revel in all the luxuries that civilization and wealth can afford, that as time goes by, our social evils instead of being remedied are becoming more perilous, the marvel of our rapid growth ceases, and we only wonder that the industrial workers have not united before. I think that I may truthfully say that now we have reached

## The Most Critical Period in the History of Our Organization.

More than ever the times demand that we should act together as a unit for the best interests of all concerned.

Organized capital is opposing us on every hand. We see it manifest in localities here and there, in organized bodies, with varied interests in State and National affairs. Not long since, the N. Y. Tribune made the statement, and gloated over the fact that the National bankers were so thoroughly organized that they could act together in a day's notice, and resist any Act of Congress, and this, that paper, once the emblem of freedom, the precursor of truth, the abettor of reform, but now the tool of the most gigantic monopoly on earth, says is a very good thing.

## The Farmer's Foes.

We have in our country at the present time three deadly foes to the Alliance and freedom, viz., national banks, railroad corporations and landlords, but perhaps the most formidable lords of American soil are those who reside across the waters. As long as the currency of this country remains under the control of a trust company known as national bankers, we can never hope for anything better than we have at the present time.

As long as railroad corporations are permitted to rob and pillage, we cannot hope to obtain a higher civilization, and while our lands are per-

mitted to be centralized in the hands of the few, our only hope is to eke out a miserable existence, to submit to serfdom as galling as that of the Irish peasant. The bank corporation has already become so thoroughly organized that it may produce a panic in order to break it up, but we must look to the final outcome.

The idea that the condition of the present time is the natural outgrowth of "free institutions is remote. The people are beginning to look into these matters. We are getting tired, for one thing, of a money system that makes it possible for a Gould, Vanderhilt, Sage and Rockefeller to create an artificial panic at any time, and thus cause the failure of dozens of business men.

## Capital is Becoming More Ravenous and Greedy

With each succeeding generation. We have a late example of the organization of the money power in Nebraska. When the subject of lowering the legal rate of interest was under discussion in the House of Representatives, every hanker in the State suspended loans and refused to let money to any farmer upon any security, at any rate of interest. Finding this formidable foe drawn up before them, they dare not advance. Already they had a panic upon their hands. The subsidized press then came out with the cry and sent it ringing through the country—"The Farmers' Alliance Legislature is ruining the State of Nebraska." Then came the accusation that the farmer representatives had not lived up to their agreement.

Where is our boasted heraldry of power? Where the freedom that our forefathers won on the battle grounds of old New England's hills? Where the liberty so valiantly won on the Southern battlefields? Thank God that we are not all serfs to the money power. These facts should spur us on to renewed and determined efforts. We are nearing the eve of a mighty conflict, a conflict that will try the power of the Government and test the loyalty and patriotism of our people. The question is no longer, when the crisis will come; it is already upon us; it is here and now.

## Business Interests Are Failing

More rapidly than ever before, wealth is concentrating faster, and tramps and paupers are on the increase. The gulf between the two great classes is growing wider and wider and deeper and deeper. What shall the outcome be at present? This is the only pertinent question. Homes are sinking beneath the burden of debt, lands are centralizing into a few hands and the legitimate owners of the soil are daily becoming tenants. In Kansas, during the past six months, 2650 farms were sold under mortgage, but that is not the worst, for 60 per cent of these mortgages or 9 out of every 15, the average number foreclosed each day, are now owned by foreign syndicates who have no sympathy with the American producers except to ring from them the almighty dollar.

How our sympathies go out to the suffering poor of the Emerald Isle dominated over by absentee landlords, and how little we realize the fact that in our own fair land, the home of the free and brave, we have laid the foundation for the most gigantic landlord system on the globe. Already foreign syndicates own enough land in the United States to make three States the size of Indiana, and in ten years hence, unless there is a change, will have added to it enough to make five States more.

## We Fought Eight Long Bloody Years

to free ourselves from the bondage of Old England, and to-day we are sitting idly by and letting our lands drift out of our own hand. We are growing more and more subservient to her power as the days go by. I shall not attempt to predict what the outcome will be. With three-quarters the farms of the country under mortgage, how long will it be until the whole nation is absorbed by the very few?

Counting the interest on our bonded and mortgaged indebtedness at 6½ per cent and the increase in the nation's wealth at 3 per cent, we find that already more than the annual increased wealth of the country is absorbed in interest. How long we can stand this enormous drain is more than I can tell, but I am satisfied that if you add to that the burdens of another \$1,000,000,000 Congress and hoodle Legislature, we will fall beneath its weight.

Every nation of the past has fallen beneath the burden of debt, and unless we provide a means for the payment of the debt already contracted in our own country, we, too, will be committed to the same ruin.

In my next letter I will try to explain how a change can be wrought by a change in our financial system.

I cannot help but think that the present condition of our country is but transient, and I thank the eternal principle of right that is molding and shaping ends for the better, and in the Alliance I see the guiding star to brighter, happier and more prosperous days.

BURDETTE CORNELL.

Wheatland, May 8th.

## At Denver.

EDITORS PRESS:—An Alliance of 11 members was organized here April 17th by T. A. Gallup of Yolo county, and to be known as Aurora Alliance. We had an addition of six at the next meeting, and on last Saturday initiated four more. Is not that encouraging? I think we can have as strong an Alliance here as any

other place in the county. The officers elected are as follows: Samuel Stewart, President; L. P. Larsen, vice-President; Grace Stewart, Secretary; T. C. Stewart, Treasurer; G. T. Muker, Chaplain; Mrs. E. Barnes, Lecturer; Geo. Fotheringham, Door-keeper; F. Barnes, Assistant Door-keeper; Olive Wilson, Steward. MRS. GRACE STEWART, Sec.

Denver, Cal., May 6th, 1891.

P. S.—Shall try and get a cluh for the Press.

## County Alliance Notes.

## Butts.

A Farmers' Alliance has been organized at Palermo by State Organizer Gaines, with the following excellent corps of officers: Pres., John T. Palmer; V. P., W. Vorhees; Sec., Liter Armstrong; Treas., S. B. Onyett; Chap., Mrs. Mitchell. There were 12 charter members and good prospects of a large membership in a very few weeks. This item shows that the Palermo people are abreast of the times in social and political matters as well as fruit-growing.—Mercury.

## Fresno.

J. L. Gilbert, State Lecturer of the Farmers' Alliance, made The Californian office a short visit on Monday last. He had returned from a professional trip to several of the northern counties, and reports the Order in good condition in all portions of the State where he has visited, and expects to be kept busy on the go until harvest-time. He says the interest in the Alliance among the producers is only in its infancy, and thinks that every farmer in the State will be a member before the close of the year.—Central Californian.

## Lake.

The F. A. & I. U. organized in Lakeport on Saturday, May 2d, with 20 charter members. The officers are R. D. Merritt, Pres.; D. T. Seeley, vice-Pres.; Thomas Porteus, Sec.; William Gessner, Treas.; George Hammack, Door-keeper. Regular meetings are the first Saturday in each month at 2 o'clock P. M.—Avalanche.

## San Diego.

Menifee is in earnest on the new farmers, warehouse question. The Alliance decided to unite with Winchester and other Alliances in pushing the project to completion. We understand the Menifee men favor building by subscription, rather than by forming a joint stock company.

## San Luis Obispo.

The Farmers' Alliance is gaining strength in this "land of the free." A strong lodge of the Order has been organized in the old Huerfano district. It now numbers some 37 strong, with more knocking at the door for admission of the go ahead people of the district. The Creston Alliance is on its feet doing good work. There is no hurrah boys about this Farmers' Alliance business here, but rather there seems to be a stalwart resolution formed among the farmers and the workmen to draw together in closer relations for their own good and salvation.—Creston Cor. Tribune.

Adelaide Alliance has full and enthusiastic meetings; they mean business.

At our last meeting Melville Alliance was called to order by President Cole. A good crowd was there; which was more than was expected, so many being out Friday to the picnic and dance. Every one knows that they do not feel like being up all night one night and half the next, but our Alliance is in earnest and intends for nothing to stand in the way. May our Holy Father help us to make a success and relieve the poor, overburdened farmer is the wish of an Alliance sister.—Cor. Messenger.

## Santa Cruz.

There was a most enjoyable gathering on the ranch of P. R. Adams at Bonny Doon, May 1st, under the auspices of Bonny Doon Farmers' Alliance. The program of music was the delight of all present. After listening attentively to music—both vocal and instrumental—and lecturing for one hour and a half, the entire assemblage repaired to the grove in which the table was spread, full of everything that was good to eat. The Alliance at Bonny Doon will make itself felt when the proper time comes, for it is composed of the right kind of material, and they are giving this economic question their careful attention.—Aptos Cor. Sentinel.

## Tulare.

The Woodville Alliance Mayday picnic was a success in every way. A great concourse of people assembled on the grounds and everything was done by the committee to make the visitors comfortable. There was plenty to eat, and after lunch the prize essays were read and the following awards made: Essay on Agriculture, first prize, Miss Lizzie Harper, \$5; second, Edwin Harris, \$2 50. Essay on Horticulture, Miss Alice McDonald, \$5. Essay on Housekeeping, Miss Mary Andrews, \$5. Miss Kelley of Deer Creek gave a recitation which was much applauded and the Hon. J. Roth rendered an address which was well received.—Enterprise.

The Farmers' Alliance have a nice organization here and are buying most of their supplies through that organization at prices they say astonishingly low.—Esperanza Cor. Times.

The citizens of Cramer that attended the Alliance picnic at Pleasant Valley report a fine time. Milo Alliance has a new banner, the work of a Porterville artist. On account of ill health the writer was unable to be present.





## After Years.

(Written for the RURAL PRESS by S. H. DRYDEN.)

The skies seem not so glorious,  
The sun is not so bright,  
And not so sweetly tremulous  
As the stars which gem the night.  
Yet there is still in sky and stars  
That we love well in after years.

The earth seems not so beautiful,  
Nor the flowers half so gay,  
Nor are we now so happy,  
To hear the wild bird's lay.  
Yet there is naught earth's beauty wears  
But we love best in after years.

We may not love so fondly  
As in our early hours  
For the love we cherished kindly  
Has perished with the flowers.  
And yet with all our anxious fears  
We truly love in after years.

It is not meet that childhood  
Should have the brightest days,  
Or that the heart's best music  
Should pass with childish lays,  
And nought be left but sighs and tears  
Along our path in after years.

Ah! Heaven has never granted  
To youth's bright, thoughtless hour  
Such lofty thought's power  
By inspiration's power.  
Imagination's soul-fire bears  
Its deepest glow for after years.

Then sigh not that our childhood  
Has faded like a dream,  
Or that the glorious sunlight  
Has darkened on life's stream,  
Though shadows come, there still appears  
Life's rainbow tints in after years.

Gilroy.

## An Uncle's Surprise.

An elderly man, shabbily attired, was seen walking through one of the fashionable streets of a large city one cold December day. His coat was of coarse gray and had evidently seen hard service. The traveler walked slowly along, examining carefully, as he passed, the names on the different door-plates. He finally paused before a dwelling of showy exterior, which, if we may credit the testimony of the plate upon the door, was occupied by Mr. Alexander Beaumont.

"Alexander Beaumont! Yes, that's the name," murmured the traveler to himself, as he ascended the stairs and rang the door-bell.

His summons was answered by a footman, who, after a moment's scrutiny, said roughly: "Well, what do you want?"

"Is Mr. Beaumont at home?" asked the old man, without heeding the intentional rudeness.

"No, he is not."  
"Then perhaps I can see his wife?"  
"I think it very doubtful, but I will go and see."

The servant withdrew without asking the old man to enter, although the day was very cold and his clothing seemed to be hardly sufficient to protect him from its inclemency.

Mrs. Beaumont was reclining on a sofa in a room handsomely furnished. The last new magazine was in her hand and her eyes were listlessly glancing over its pages. She was interrupted in her reading by the entrance of her servant.

"Well, what now?" she inquired.  
"There is a man down stairs who wants to see you, ma'am!"

"Man! A gentleman, you mean!"  
"No, ma'am," said Charles, stoutly; "it isn't a gentleman at all, for he has got on an old gray coat and he has not got any gloves on."

"You didn't show him into the parlor, did you?"

The man shook his head.  
"You did right, and you had better tell him I'm not at home."

"Mrs. Beaumont is not at home," said Charles, reappearing at the door.

"I suppose that means she is engaged," said the old man. "I think she will see me when she learns who I am. Tell her I am her husband's uncle and my name is Henry Beaumont."

The man servant returned and delivered the message.

"Good heavens!" said the mistress, "it ain't that old fellow who strolled off years ago, nobody knows where! I did hope he never would come back again; and now I suppose he is as poor as a rat and wants help. Well, he won't get it if I can help it, but I suppose I must see him."

She descended the stairs and received the old man at the door.

"Are you Mrs. Beaumont?" he asked.

"Yes, I am the wife of Mr. Beaumont, and I suppose from your language you are?"

"His Uncle Henry! Ah me! I have been gone so many years, and it does me good to return to my kindred."

The old man's features worked convulsively as thoughts of the past came over his mind. Mrs. Beaumont stood holding the door, as if waiting for him to depart. She did not give him any invitation to enter.

"Is your husband well?" inquired the visitor, looking as if he expected an invitation to enter and refresh himself.

"He is. If you have any message for him you may leave it with me, and I will deliver it," said Mrs. Beaumont.

"You may tell him I have called," said the visitor in a disappointed tone, "and that I would have liked to have seen him."

"I will tell him," said the lady, as she was about to close the door.

"Hold! There is one question more. What has become of Alexander's sister, Anne?"

"I don't know much about her," was the rather disdainful reply; "but I think she married a clerk or some such person. His name is Lowe, and he lives in Norton street. Is that all?"

"That is all."

The old man turned his steps toward the street indicated with many forebodings lest his second visit might be as unwelcome as the first.

"Charles," said Mrs. Beaumont as she closed the door, "if that old man comes again be sure and not forget to tell him I am not at home."

Norton street was not a fashionable street, nor was the two story dwelling occupied by William Lowe either handsome or costly. It was marked, however, by an air of neatness which indicated that its tenants were not regardless of outward appearance.

We will take the liberty of introducing the reader to a little sitting room, where Mrs. Lowe and her three children were seated. The furniture, though of a kind that would hardly be selected for a drawing room, had a comfortable, home-like appearance, which amply satisfied the desire of those who derived their happiness from a higher and less mutable force than outside show. Mrs. Lowe was engaged in an employment which is tabooed in all fashionable society—that is, darning stockings.

Emma, a girl of ten, was brushing the hearth, which the ashes from the grate, in which a blazing fire was now burning, had somewhat discolored, while Mary, who was two years younger, was reading. Charles, a little rogue of five, who had a smiling face, which could not help looking roguish, was stroking the cat the wrong way, much to the disturbance of poor Tabby, who had quietly settled herself down to pleasant dreams on the hearthrug.

All at once a loud knock was heard at the door.

"Emma," said the mother, "you may go to the door and see who it is, and invite the person in, for it is a cold day."

Emma immediately obeyed the mother's directions.

"Is Mr. Lowe at home?" inquired Henry Beaumont, for it was he.

"Yes, sir," said Emma; "please walk in and you may see her."

She ushered the old man into the comfortable sitting room, where Mrs. Lowe rose to receive him.

"I believe," he said, "I am not mistaken in thinking that your name before marriage was Anna Beaumont?"

"You are right; that was my name."

"And you have no recollection of an uncle that wandered away from home and friends, and from whom no tidings have come for many a long year?"

"Yes, sir, I remember him well—my uncle Henry—and I have many times wished I could hear something from him. Can you give me any information?"

"I can—for I am he."

"You my uncle?" said Mrs. Lowe, in surprise; "then you are indeed welcome. Emma, bring your uncle the arm-chair, and place it close to the fire; and, Mary, bring your father's slippers, for I am sure your dear uncle must long to get off those heavy boots. And now, uncle, when you are quite rested, I must demand a recital of your adventures."

"But your brother Alexander?" interrupted Mr. Beaumont; "let me first inquire about him. He lives in town now, does he not?"

A light cloud came over Mrs. Lowe's face.

"Yes," she said, "he does live in town; yet, strange as it may appear, I seldom or never see him. He has succeeded well, and is wealthy. But ever since he married a wife with a small property and greater pride he has kept aloof from us. I do not blame him so much as his wife, who is said to have great influence over him. I have called once, but she treated me so coldly that I have not felt a disposition to renew my visit."

"I can easily believe it, for I, too, have been repulsed."

"You repulsed? Did you give your name, and inform her of your relation to her husband?"

"I did; but she did not invite me to enter, and she was evidently impatient for me to be gone. I took the hint, and here I am."

"At least, uncle," said Mrs. Lowe, smilingly, "you need not be afraid of any repulse here."

"Of that I am quite sure," said the old man, looking affectionately into the face of his niece. But you have not told me of your husband. Let me know you have made a good match," he added playfully.

"That depends on what is meant by the term. If it implies a rich husband then I failed most certainly, for William's salary is only \$1000, and that is what we have to depend upon. But for all that I care not, for a kind, affectionate husband is worth far more than a magnificent house and the most costly furniture."

"You are right," said her uncle. "There must be something which your limited means will not permit you to obtain, but which would be desirable, is there not?"

"Yes," said Mrs. Lowe; "I am anxious to give Emma and Mary a musical education, but William's means will not allow of such extravagance as the purchase of a piano, so that is one of the things we must be content to deny ourselves."

Mr. Lowe then entered, and being informed of the character of his visitor he extended him a hearty welcome. A comfortable repast was soon spread, of which Mr. Beaumont readily partook. His spirits rose, and he seemed to grow younger as he saw the cheerful faces around him, and felt himself at home. Soon after the evening meal he rose to depart.

"Surely you are not going?" said his niece, "you must henceforth take up your abode with us."

"We will see about that, and if you don't think you will get tired of me perhaps I will come. But I have hired a lodging and must undoubtedly remain in it for a few days."

"But you will call in every day and make yourself perfectly at home, even before you come here to stay," persisted his niece.

"Be sure of that."

In accordance with his promise Mr. Beaumont made his appearance next day at 11 o'clock, and was received as cordially as before. He had hardly been in the house a few minutes when a rap was heard at the door. Mrs. Lowe beheld two men, who had just driven up in a wagon.

"Where is the piano to be put, ma'am?" they inquired.

"Piano! You have made a mistake. We have purchased no piano."

"It's all right," said a loud voice behind her.

She turned round in amazement.

"You know," continued the man, "that I am come to live with you, and I thought I would pay my board in advance, that is all. As you expressed a wish yesterday for a piano I thought it would be as acceptable a way as any."

"You, uncle? Why, excuse me, but I thought from—"

"You mean," said he, smiling, "that you thought from my appearance that I could not afford it, and I confess," said he, casting a glance at himself in the glass, "that my dress is not in the extreme of fashion; and, in fact, I was obliged to look some time when I called at the second hand clothing shop the other day before I could find these. However, as I have got all the service I wished out of them, I shall throw them aside to-morrow and appear more respectably clad."

"What, are you wealthy, Uncle?"

"Depend upon it, Anne, I didn't spend ten years in the East Indies for nothing," was the reply. "I had the mind, however, to put on the appearance of a poor man, and so test the affection and disinterestedness of my relations. One of them, however, I found not at home. I am happy to find myself at home with the other."

Let us return to the aristocratic Mrs. Beaumont, who a few days succeeding the events here recorded, was in her drawing-room receiving calls.

"By the way," said a fashionable visitor, "I am to have your relatives, the Lowes, for my next-door neighbors."

"Next door neighbors!" exclaimed Mrs. Beaumont, in amazement. "What do you mean?"

"Is it possible you have not heard of their good fortune? Mrs. Lowe's uncle has just returned from the East Indies with an immense fortune. He has taken a house in the same street with ours, and when they have moved into it he will take up his residence with them. Meanwhile he is stopping at the Clarendon hotel."

"What! Henry Beaumont?"

"The very same; but I thought you knew it."

When the visitor withdrew, Mrs. Beaumont ordered her carriage and immediately drove to the hotel where her husband's uncle was stopping. She sent up her card and requested an audience.

The servant soon returned with another card on which were traced the significant words, "Not at home."—*New York World.*

WOMAN'S GREATEST DANGER.—The great element of danger with woman's progress before the public lies in this fact that it takes women away from home who ought to be there and nowhere else. The public platform is no place for a mother who has either sons or daughters to educate. If woman's progress is going to tend in that direction, then the sooner that advancement stops the better. The first thought of a wife or a mother should be her home; all things, no matter how important, are secondary to that. No matter how rampant may become certain public evils, let her see to it that she keeps the evils out of her home, and she performs her greatest duty to her God, her family, and mankind.—*Ladies' Home Journal.*

## Lincoln's Fricassee Chicken.

Margaret Spencer writes to Mrs. Logan's *Home Magazine* this pathetic story of Lincoln at the White House:

From his humble home in the West, he brought into public life his notions of plain, frugal living, and to the day of his death adhered to them strictly. The discouraged steward complained bitterly of his utter lack of appreciation of his finest work, and never quite forgave him for saying to Mr. Lovejoy, who was dining with him one day, "None of this flummery goes to the tired spot." And once he was heard to say to his wife, "I do wonder why we do not get such good meat and potatoes in Washington as we need to have in Illinois! Do you know, Mary?"

During the latter years of his life, he ate so little and so irregularly that often noontime found his breakfast untouched, and Secretary Stanton one day remarked: "Mr. Lincoln, whose dinner is this, I wonder, covered up so nicely? It will be cold very soon!"

"Dinner? Why, that's my breakfast! What time is it, Stanton? I do feel kind of empty!"

Through the influence of Hon. Owen Lovejoy, Miss Alice Johnstone of Chicago was appointed to a desk in the postoffice. During her first winter in Washington, she slipped on an icy pavement, and for three months was confined to her room. Ill and discouraged, she determined to return to the West and give up her office. Mr. Lovejoy spoke to Mr. Lincoln of her sad condition, and said in his great-hearted way: "If I hadn't five girls of my own, I'd adopt Alice! My wife always has room for one more at home!"

"So here, Lovejoy, we need just such a girl! I'll speak to Mary at once."

So, "to make a long story short," Alice became a member of the President's family. Her capabilities were quickly discovered by all; her work admired and commended by guests and servants. She proved a "perfect comfort" to the lonely, sorrowful man, "weighed down with the nation's fate," and to the busy women, in the whirl of fashionable life, "a constant treasure."

Tad remarked to his father one day: "We are having better times since Alice came, because, you see, I can have all the boys I want to now. She don't mind our parties, and can get anything of the cook!"

Alice was deeply attached to the family, and especially impressed with the gentle domestic life of the President. She said:

Should I live to be one hundred years old, the kind, quiet good-mornings of the end-faced, tired man whom I saw every day will never cease to thrill my heart! I used to watch him standing with his arms folded, looking steadily from the South window, across the Potomac, toward the battle fields, so pale, not at all rested from the work of yesterday, and yet up since daybreak, looking over his maps, I longed to help him!

He grew more gaunt and worn as the year crept on. The servant went to Mrs. Lincoln with complaint; they served lunch upstairs to save his time, but hours afterward would find it untouched.

"Alice!" Mrs. Lincoln exclaimed one morning. "Do you know how to make an old-fashioned fricassee chicken? Not on toast, as we have it nowadays, but with small cream biscuits and thick cream gravy poured over them, all served on a large platter. I used to cook chicken that way when we were first married, and my husband would say: 'Mary, that is fit for a king!' Do you think you could do it exactly so?"

"Oh, let me try!" Alice said. "It would be so good to see Mr. Lincoln eat!"

She had no trouble with the entire force below stairs—the cook, steward, waiters and the use of the shining range combined to perfect the dish.

A table was laid in Mrs. Lincoln's private sitting-room. Old-fashioned pinks glorified the quaint meal; attendants and waiters were dismissed.

Little Tad was sent to the office for his father. Twice he came back with a long face. "Father says he is too busy. Secretary Stanton is there!" But the third imperative visit brought "father." Tad rushed in, dragging his father by the hand, and shouting: "I've got him—I've got him! Harry up the dinner!"

I would like to give Alice's own words as she sent them in a letter to Chicago:

"If you could have seen Mr. Lincoln's face! You could have cried! He stood in the doorway, silent, tired and abstracted. Tad tugged and pushed him along, while Mrs. Lincoln looked up to him and said: 'You will eat dinner with us to-day; we have something you like.'"

"The surprise and pleasure dawned slowly into his eyes. He sat down opposite his wife, with Tad between them. He seemed to understand it all—his little family, the old fashioned home dish, the loving attention. Before he ate one mouthful, he rose from his chair, walked around to his wife, laid his big hand on her shoulder, and said:

"Mary, I wish we were back in the old home, when you did the cooking and I helped with the chores! They were our best days."

"I hustled into the hall, almost choking to death, with lumps in my throat; and when I came back with a glass of milk for Tad, Mr. Lincoln was laughing and eating my chicken with all his might. His whole esophagus couldn't



have given me the pleasure and reward that his smile and good appetite did. 'He ate three helps, Alice, and more gravy than you and I and mother could, all put together!' said Tad. 'When he went out, Mr. Lincoln said: 'Wife, you and Alice will make me sick with such good dinners. I haven't tasted a meal like that since—since—well, Mary, I think it's safe to say, since you and I were the head cooks!'"

### Incidents in a Photograph Gallery.

One old gentleman often came to me to have his picture taken. He wore a white cravat about five inches in height, and he held his head above it. I always tried to get his head down, so as to obtain a view of his face without looking up his nostrils; but he never let me. As soon as I placed his head in a good position, he would say that that was not natural, and up would go his head. It was this gentleman who was told by a crazy woman on the Jersey ferry-boat that when he died it would not be much trouble to bury him, as he was already laid out.

A lady once brought her three children, a hobby-horse, a drum, and a doll. They were to be taken in a group. The size selected was three and one-fourth by four and one-half inches. The girl Angelina was to hold the doll; but the family had not decided whether Charles Agnustus was to ride the horse and William Henry hold the drum, or vice versa. They had agreed to let my superior judgment decide that momentous question. As both the boys wished to mount the horse, a decision was no easy matter. I then learned that the mother did not want the children close together, as all the "dog-ra-types" were taken. She wanted Angelina in the middle of the room, one of the boys by the "winder," and the other boy on the other side of the room. It was a brilliant idea; but how my camera was to reach them all, thus spread out, was more than I could see. I told her that it could not be done; I explained to her the capabilities of the lens, the concentration of the light, and so forth, but she did not understand me. She said that she had been told that I was disposed to be accommodating, but that I was just the same as the rest of the "dog-ra-type" men, for three others had refused to accommodate her in this way.

Another lady brought her three children to be taken in a group, and when I asked her if she wished them taken in any particular position, she showed her good sense by saying that she only asked that they should not look like three candles; she did not wish them all standing straight.

An old lady, after sitting about half the time required to have her picture taken, raised both hands and exclaimed, "Stop it! stop it! I winked!"

As an elegantly-dressed young lady was preparing to sit for her picture, she asked, "Where must I look?" and before I could answer, her escort, a very diminutive specimen of a man, stepped in front of the screen and said in a squeaking voice, "Look at me." The scene was so ludicrous that the lady burst into hearty laughter, and it was some minutes before she could control her features for a sitting. After that, "Look at me," *sotto voce*, was for some time a hy-word in the gallery.—"The Experiences of a Photographer," in *Lippincott's*.

### Chaff.

It is pleasant to hear the truth—about other people.

Women were made before mirrors, and have been before them ever since.

When a red-nosed man wanted his picture in a heroic attitude, the artist painted him in the act of refusing a drink.

"Don't you know, prisoner, that it's very wrong to steal a pig?" "I do now, your Honor. They make such a row."

A CORRESPONDENT wants to know if fits are hereditary. Any small boy compelled to wear out his father's old clothes could tell him they are not.

DAUGHTER—Why is it, ma, that a honeymoon is supposed to last only three months? Ma—At the end of three months the quarterly bills come in.

MABEL (relenting a little bit, but still a trifle angry)—Anything I have of yours I will return at once. Charlie (giving her a kiss)—Well, there's your opportunity.

FRED—I didn't mind Taylor's discharging me so much as I did the insult he subsequently offered me. Frank—What was that? Fred—He advertised for a boy to fill my place.

JIMSON—Ten years ago Smithson wronged me cruelly, and now my revenge is at hand. Thompson—What are you going to do? Jimson—To-morrow will be his tin wedding. I will bestow tin drums upon his twins and a tin whistle upon his oldest boy.

The particular Pat of this story had in some manner engaged himself to an American as a butler. One hot summer night his employer, oppressed by the temperature of the dining-room, turned to Pat and asked: "Is the window up, Pat?" "Tis, soor." "What makes it so awfully close in here, then?" "Oh think it must be th' windy's heln' up soor. It's shut up."

WHOPPER—Yes, sir, that cat of mine could spring fifty feet after a mouse, and—Breakley (who stutters)—Whew, what a l—l—l—Whopper—It is not a lie, and I'll knock you down if you don't take that back! Breakley (continuing calmly)—L—l—lively cat!

## YOUNG FOLKS' COLUMN.

### Wait.

[Written for the RURAL PRESS by GERTRUDE.]

Christians do not be discouraged,  
Though but slow your progress be;  
Slow of growth, too, is the acorn,  
Yet becomes a mighty tree.

We are liken unto children,  
And a day school is our life.  
Every day we have a lesson,  
Fitting us for every strife.

Courage, then, and wait upon Him,  
And thy strength He will renew;  
In His time send showers of blessing  
To distill like gentle dew.

Spirits are in order changed  
By His mighty power divine.  
Step by step rise higher, higher,  
While the branch clings to the vine.

Hights and depths there are unfathomed,  
And to seek is to attain.  
Oh! the glories that are hidden,  
Only knock and ye shall gain.

Be thou faithful, and the spirit  
Into all God's fulness lead.  
Faithful is He that hath promised,  
Who will do it, as we read.

Alameda, April, 1891.

### What the Boy Thought of Thunder.

A kind reader of the RURAL sends us the following as the conclusion of a Los Gatos boy aged four years, concerning an impressive natural phenomenon:

I forgot to tell you Robert's version of the thunderstorm we had a few weeks ago. He did not know what to make of it at first, and I told him it came from up in the clouds. I noticed him at the window looking up at the sky, and finally he turned to me and said: "Mamma, you know the Lord's house is up in the sky and some of the boards are tumbling down. That's what makes the noise."

Wasn't that pretty good?

### Tidy.

That was what we called her, though her real name was Elizabeth or some other name so much too large for her that I never heard it often enough to be sure what it was. She lived just across the road from the school-house, and though less than five years old, came to school because Clair, her brother—older—was too bashful to come alone.

Her parents were hard-working farmers, well known in the neighborhood as "John" and "Mollie" even by their own little ones, of whom there were five, Clair and Tidy being the oldest. It sounded strangely enough to hear Tidy ask to "go over to Mollie's to get a piece" at recess. I always sent them home as soon as I was through with them for the half-day, but one forenoon they came back at once, because, as Tidy explained, "Mollie's mopping."

As oldest daughter, little Tidy with her bright eyes and sweet baby face began to show some little, thoughtful, womanly ways. Once, when I called to see her mother, she was sitting on the floor amusing the baby; before I left he fell asleep leaning against her, and there she sat patiently waiting, with her arm around the little fellow to keep him from falling until her mother noticed them and put the baby in his crib.

As soon as she learned that she must not talk aloud in school, she never made me any trouble. She was so bright and active, so winning and pretty, too, that she was a great pet. She would flit from one big girl to another, as still as a mouse, and always sure of a welcome, never tiring of finding in their various books the letters she knew. I am sure it is a pleasure to them now, as it is to me, to think that we helped to fill her baby life with the petting and attention she must often have gone without in the crowded, busy home.

I had little time to spare to her, but used to let her come to me several times a day for a few minutes, with any book she chanced to have, as often a history or grammar as anything else, and sit on my lap and tell me what letters she could. Once when I offered to take her up as usual to read soon after recess, instead of springing to her place, she hung back, saying softly, "I guess I'd better stand down this time; my feet's muddy."

Sometimes she came to me with an old primer, whose simple lessons she partly read and partly repeated from memory so fast and so energetically that unless I watched her closely she would have the whole school laughing. She read the little piece that ends "The cat is on my new fur cap. Get off, old cat!" saying in her quick, eager way, "Get off'n that, you old cat!"

She would spring into my lap as lightly as a bird, and was so small and slight and sat so still that I scarcely felt her weight, and often held her when I could be seated at my work. She soon learned this, and when tired of the others would come to me and modestly ask, "Please may I sit on your lap a little bit?"

Perhaps these memories of her are made more tender and almost sacred because her little life ended so soon. I never saw her after that winter. The next summer she fell and broke her arm. Not long after it was well—and very patient she was while it was healing, they told

me—she with three others of the little brothers and sisters sickened with diphtheria, and died, one after another.

Although it seems very hard when we think of the poor, overworked mother in her loneliness, to me it seems more fitting and more pleasant too, to think of Tidy in her sweetness and baby beauty, taken away from all the hardships life must surely have brought her, growing still purer and fairer in another part of "Our Father's House."—Gazelle Stevens Sharp.

### What Ailed Beggar.

When "Beggar" was a handsome, playful plump two-months-old Maltese kitten, he was given to Ella Lyon, who carefully packed him in an airy, well-ventilated basket and took him into the parlor car. For the first few hours after his young mistress was comfortably settled in her chair, kitty "yowled" and growled disagreeably; but finding that no one heeded his lamentations, he finally dropped into a sweet cat sleep.

After 24 hours' journey he was released from his prison and introduced to the Lyon family, consisting of half a dozen boys and girls, with papa and mamma Lyon, who had just breakfasted in their cosy, sunny dining-room.

Kitty looked about deliberately for a few moments into the strange faces. "He's choosing his favorite," said Dick, gravely.

"Oh, I do hope he'll choose me," replied Blue Eyes, the six-year-old lassie. But kitty did not take to the "yongsters." With a graceful bound he leaped into Papa Lyon's lap, and began to purr coaxingly.

"Ob, papa, kitty likes you best," chorused the little people.

"Sensible pussy," said papa, laughingly. Pussy did like Mr. Lyon, and displayed his affection by lavishing upon him every cat-like handshaking he was master of.

There was trouble in finding a name for this velvet coated, graceful pussy. None of the names suggested seemed to fit him. Finally Papa Lyon settled the question, after hearing mamma call out one morning, while pounding the breakfast beefsteak:

"You are an incessant beggar."

"Beggar" was pussy's name thereafter, and he soon answered readily to a call for "Beggar," fortunately in blissful ignorance that his title wasn't at all complimentary to him.

He grew fast and attained a weight of fourteen pounds. Upon becoming portly he did not lose his playful ways. It really did seem grotesque when Beggar, wildly excited with a game of romps with the boys, essayed to nimbly jump about or use his ponderous paws in the old-time kittenish manner.

For a year or more Beggar's life was a play day, and he remained the "pet" and favorite, though not nearly so meek and patient as Tabby Velvet Toes, the excellent mouser but a very "homely" puss and rather dull in manner.

One morning Beggar evaded the attention of every member of the family. After breakfast a nice bone was given him on his plate, and shortly after a series of dismal "yeow-w-w's," varied by angry "s-s-s-s-s's" and hisses, disturbed the family peace. During the day Beggar continued his strange conduct.

"I really shall be obliged to kill the poor cat if he continues to act in this way. He must be going mad," said papa at tea time.

"Papa," said Dick, "I think his tooth aches. He puts his paws to his mouth."

Mr. Lyon got the chloroform bottle, poured a few drops upon a handkerchief, held it near Beggar until poor pussy was quiet enough to be handled, then looked into his mouth.

A tooth had been loosened from his jaw and the gum about it was much inflamed. Mr. Lyon hastily removed the tooth and Beggar was soon himself again.

Cats have been accused of having no affection or gratitude, but Beggar seemed to appreciate the kind treatment bestowed upon him by the Lyon family, and never formed the habit of "snooping" into eatables within his reach or stealing food.

There are few dumb animals that cannot be won with kindness, though, just as in the human race, they differ widely in disposition and degree of intelligence.

### Mother's Turn.

"It is mother's turn to be taken care of now." The speaker was a winsome young girl, whose bright eyes, fresh color and eager look told of light-hearted happiness. Just out of school, she had an air of culture, which is an added attraction to a blithe young face. It was mother's turn now. Did she know how my heart went out to her for her unselfish words?

Too many mothers, in their love for their daughters, entirely overlook the idea that they themselves need recreation. They do without all the easy, pretty and charming things, and say nothing about it; and the daughters do not think there is any self denial involved. Jenny gets a new dress and mother wears the old one, turned upside down and wrong side out. Lucy goes on the mountain trip, and mother stays at home and keeps house.

Emily is tired of study and must lie down in the afternoon; but mother though her back aches, has no time for such an indulgence.

Dear girls, take good care of your mothers. Coax them to let you relieve them of some of the harder duties, which for years they have patiently borne.—*Intelligencer*.

## DOMESTIC ECONOMY

### A Batch of Cookies.

The children are in school now, and there is no more desirable adjunct to the pantry when packing their lunch baskets than a well filled jar of cookies. They are by no means despised by older members of the family during the last stages of breakfast, and a little box of them may be given to a traveler starting on an unexpected journey, with the surety that they will be much nicer than anything he can obtain at a railway lunch counter.

Nice, plain, ginger cookies may be made as follows: Mix one egg, one cupful of sugar, one tablespoonful each of ginger and vinegar and a little salt. Put one teaspoonful of molasses in a basin and set it on the stove. When it boils, add one tablespoonful of soda, previously dissolved in a little boiling water. Stir the hot mixture into the cold and add flour enough to make a soft dough. Roll rather thin and bake in a quick oven.

**Ginger Snaps.**—One pint of sugar, one pint of molasses, three tablespoonfuls of sour milk, two tablespoonfuls of ginger, one tablespoonful of soda dissolved in the milk, one coffee-cup full of butter or lard; if the latter is used, add one teaspoonful of salt. Mix stiff and roll very thin.

**Fruit Snaps.**—One and one-half cupfuls of sugar, one cupful of butter, one-half cupful of molasses, three eggs, one teaspoonful of soda, one cupful of raisins, two cupfuls of currants, one tablespoon each of cloves, cinnamon and allspice. Mix as soft as they can be handled. These are said to keep for months, if under lock and key.

**Rich Molasses Cookies.**—One cupful of molasses, one cupful of soft sugar, one cupful of butter or lard, two teaspoonfuls of ginger, one teaspoonful of soda dissolved in half a cupful of boiling water. If lard is used, add a little salt. Mix very soft. These cookies may be varied by using other spices or combinations of spices.

**Cocoanut Jumbles.**—Five cupfuls of flour, two cupful of sugar, one cupful of butter, one cupful of grated cocoanut, one cupful sour milk, one nutmeg, one teaspoonful of soda dissolved in the milk. Mix rather hard and sprinkle each cookie, when out, with grated cocoanut.

**Cream Cookies.**—One and one-half cupfuls rich sour cream, two cupfuls soft sugar, one egg, one teaspoonful of soda, one teaspoonful of salt. Flavor with lemon. Mix very soft.

**Rich Cookies.**—Three cupfuls of sugar, one cupful of butter, one cupful of sour cream, four eggs, one teaspoonful of soda, Flavor to taste and mix stiff.

**Chocolate Cookies.**—One cupful of butter, two cupfuls of sugar, two eggs, one-half teaspoonful of soda dissolved in the milk, one cup of grated chocolate. Flavor with vanilla. After baking, drop a little white icing on the center of each cookie. The secret in having cookies perfect is in having a quick, even heat. Most cookies need no more flour than just enough to enable the cook to roll them out. More makes them hard and spoils them. Cookies are said to be improved by rubbing the butter with the flour as one does for biscuit or pie crust. When home-grown Amber Cane molasses is used for cookies, half the usual amount of sugar is all that is needed, and very good cookies may be made by using a second cup of molasses in the place of any sugar. In this case no water should be used.—*S. A. Little in R. N. Y.*

**NOVELTY LOG CABIN CAKE.**—Make the sponge the same as for soda cake (only double the amount), bake in pan 8 by 12 and 1 inch deep; build your cake 7 inches high; then to slope the roof cut off one-quarter inch lengthwise of each cake until the top cake will be 2 inches. Now the strips cut off, I build chimneys at each end. For frosting, take the whites of five eggs, three cups of pulverized sugar, put in earthen dish, set on stove and stir briskly until too hot to bear your finger, then season with lemon and stir until warm, then add seven cups of pulverized sugar. A knife dipped in cold water occasionally will aid in smoothing. Now for ornamenting! Take whites of two eggs, one-half cup red sugar and one-half of pulverized; cook same as above; when done, add enough pulverized sugar so it will work like dough. This I use to form designs—names, doors, windows and frosting for chimneys. If I want the trimming orange, I put in two yolks of eggs and one whole egg in place of red sugar. After frosting, sprinkle red granulated sugar between. This will take patience, but you will be well paid for your trouble.

**PLUM PUDDING.**—A writer in *Harper's Bazar* gives a recipe for genuine plum pudding from Virginia, as follows: A small loaf of bread soaked in a pint of new milk until soft enough to mash with a spoon, eight eggs, one pound of sugar, one pound of beef suet chopped fine, one pound of raisins stoned and out in small pieces, one pound of currants, half pound citron, half a nutmeg, one teaspoonful powdered allspice, a very little clove, and enough flour to hold the ingredients together, sifted in by degrees. A pint of flour is generally sufficient, and butter may be used in place of suet. Mix the pudding well, and boil either in a cloth or tin mold for eight hours, being careful to fill up the kettle with hot water, as fast as it boils away.



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SAN FRANCISCO:

Saturday, May 16, 1891.

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## Business Announcements.

(NEW THIS ISSUE.)

Traction Engines—Baker & Hamilton.  
Horse Forks—Byron Jackson.  
Ranch to Exchange—G. M. St. Helena.  
Thresher Belts—French & Linforth.  
Hay Presses—L. C. Morehouse, San Leandro.  
Plans, Etc.—Theodosia B. Shepherd, Ventura.  
Land for Sale—W. E. Judson, Alessandro.  
Windmills—Aermotor Co., Chicago.  
Evaporators—Blymyer Iron Works Co., Cincinnati, O.  
Poultry—E. F. Musson, San Leandro.  
Root Beer—C. E. Hires & Co., Philadelphia.

See Advertising Columns.

## The Week.

The weather has been favorable for growth in most parts of the State. The rather cool weather and dull skies have given the grain another week without exactions by extra heat or dry winds, and gratifying progress toward maturity has been made wherever the roots have found moisture enough. Each such week adds to the chance for plump grain later on.

The fruit men have had much to do with familiar pests and with enough new ones to assure them that the subject still calls for study and experiment. Still no great calamity has

occurred and the fruit outlook generally is still very satisfactory.

Announcements of schools closing and of the approach of the vacation season mark the progress of the year as clearly as does the progress of field crops. Plan for a vacation and a change of scene this summer if you can. If you have worked faithfully, you both need and deserve it.

## Late European Wheat Crop Advances.

Late mail advices received from England are confirmatory of previously published statements that the wheat crop prospects are unfavorable. From the April 25th number of *Money*, a leading financial and conservative English journal, we learn that the past winter was the coldest within the century. The winter began as early as October, when there was frost severer than had been known for half a century at the same date. December and January were unusually severe—severer, it is said, than in any corresponding months since 1813-14, and March and April have again been very cold. Not only had they this unusual protracted period of cold, but there was exceptional drought at the time. This resulted up to the last of April in vegetation being exceptionally backward and trees leafless. While this was the case in England, on the Continent—in Western and Central Europe—it was even worse. One of the peculiarities of the winter was that the south of Europe and the north of Africa suffered exceptionally. Heavy storms fell in many districts where snow had not been seen for half a century. Farmers, in consequence, became alarmed in France, Belgium, Germany, Holland, Spain and Italy.

*Money* says that unless there is an early complete change for the better in the weather, it is inevitable that the demand for Central and Western Europe for wheat will be exceptionally great. It is estimated by good judges, that if the present prospects are realized, the loss in wheat alone to France will hardly fall short of \$250,000,000. But if France, Spain, Italy, Belgium, Germany and England have all to import more wheat than usual, in consequence of deficient harvests, the rise in the price will continue. In this connection, it is noteworthy that the reports from Austria-Hungary, more particularly from Hungary, are unfavorable, while the reports from Russia are conflicting. Assuming that the present prospects are realized, and that both Austria-Hungary and Russia have not as large a surplus as usual to export, the main demand will have to be supplied by the United States. The most recent reports from Australia are to the effect that the Victorian harvest is very much shorter than the first reports represented it to be; and the returns of the Government of India likewise point to some disappointment respecting the Indian harvest. It appears that there have been excessive rains in the Punjab, and that in the low-lying districts, much damage has been done. In the Northwestern districts, hail has done damage, and in some other places, the crops have suffered seriously from drought. Therefore, according to the latest returns, the harvest, which is now being gathered, will not turn out as well as it promised a month or two ago.

**CALIFORNIA AT THE WORLD'S FAIR.**—There have been several meetings of the California World's Fair Commission during the last fortnight, and conferences have been had with California's representatives on the National Commission. It seems likely that there will be no trouble about the State having a building of its own and in it a representative exhibit of the resources and productions of the State as is contemplated by our State appropriation of \$300,000. There will also be exhibits of California manufactures and products in the several buildings, such entries being made by individuals in competition for the premiums offered. Thus the State and its individual enterprises may be fully set forth. The superintendence of the horticultural department of the fair has been given to Walter S. Maxwell of Los Angeles by appointment by Director-General Davis. The confirmation of the appointment is still to be had.

THE SONOMA PRESERVE COMPANY was incorporated at Petaluma last Saturday with a capital stock of \$50,000. The company will be ready for work as soon as vegetables suitable for packing have sufficient growth.

## Eastern Fruit Shipments.

The first carload of cherries from Vacaville on Tuesday of this week opens the overland shipment of deciduous fruits for 1891. The shipment was by the Earl Fruit Co., and comprised Black Tartarian and Gov. Wood cherries in splendid condition, from the orchards of Bassford Bros., Robinson Bros., and Garlische. The car was a refrigerator and will go by passenger train. The shipment is one week earlier than last year.

Present anticipations are for plenty of fruit of most kinds, and for an active shipment to the East. There is not the same shortage at the East this year, but the wider distribution which our fruit gets each year should call for large supplies, even though the local Eastern product is greater. There comes to hand, however, just as we go to press, the following telegram, which appeared in the *Philadelphia Press*:

WILMINGTON, DEL., May 6.—The hopes that Peninsula fruit-growers have so fondly cherished during the past four or five weeks for a big yield of peaches have been rudely dissipated by the present cold wave. Orchards which on Sunday last were a delightful phantasy of pink, white and green, were sadly despoiled by the frosts of Monday and Tuesday nights, the ice of last night and the snow of today.

Two weeks ago, Jack Frost left his blighting track through the lower section of the fruit belt, but hundreds of acres of trees escaped damage. To-day the bright bloom is a crumbled, blackened mass of dead hopes. There is no resurrection for the peach. It will not bloom again this year, and the farmers are in sore distress over their losses.

There is considerable activity among agents and buyers for Eastern fruit dealers, which is a promising indication so far as it goes. Senator Buck, manager of the Fruit Union, believes he has secured assurance that the railway service will be improved this year, and delays which were vexing and productive of much loss last year will be avoided as far as possible. It is certainly indispensable that this be done. Mr. Buck will open his office in Sacramento this week.

## The Stanford University.

Announcement is made by circular that the Stanford University will open for students October 1, 1891. For the first year, chairs will be established, and instruction will be given in the following lines of work: Mechanical engineering, civil engineering, mathematics, physics, chemistry, geology, botany, zoology, physiology, philosophy, ethics, history, political science, English language and literature, German, French, Latin and Greek.

The work of the University will begin with the freshman class. For admission to this class, the candidate must be at least 16 years of age, and must pass a satisfactory examination in the subjects specified in the circular, copies of which can be had by addressing President David S. Jordan, Menlo Park, Cal. The following announcement is made of expenses:

Tuition in all departments of the University will be free. Board will be offered at cost in the dormitories. The price fixed at present for board in Madrono Hall is \$3 per week. Rooms with light, heat and attendance, are offered at \$1.50 per week for each person, if two occupy one room; \$3 per week, if occupied by one person; but single occupancy will not be permitted if the rooms are needed by other students. Washing will be charged at cost. The expenses of the student in Madrono Hall need not exceed \$200 for the year, exclusive of clothing and railway fares. The accommodations for young women will, at the first, be limited, but an effort will be made to provide suitable rooms for those who may enter the University.

President Jordan is now at the East, but will be at Menlo Park after June 10.

## The Farmers' Institute at Auburn.

Concerning the Farmers' Institute which will be held in Auburn May 22d and 23d, under the auspices of the Auburn Horticultural Society, it may be said that full preparations are being made to ensure the success of the meetings. There will be a strawberry exhibition to which all small fruit-growers are invited to contribute their best work. Mr. Wickson will make an opening address concerning the history, methods and purposes of Institute Work, and thereafter it is expected that the time will be fully occupied with addresses and discussions. We have not seen a full list of those expected to address the meeting but L. W. Buck Manager of the Fruit Union and E. W. Maslin Manager

of the State Board of Trade are expected to be present. No doubt full details can be found in the county papers before the date of the meeting. The attendance should be large.

## Irrigation in New Mexico.

Robert S. Porter, Supt. of the Census has just issued a bulletin giving an outline of the results of inquiry into irrigation in New Mexico by F. H. Newell. The statements are interesting to residents of all irrigated countries as items of general irrigation practice. It is stated that in New Mexico crops were raised by irrigation in the census year ending June 30, 1890, on 91,745 acres, or 143.35 square miles, a little more than one-tenth of one per cent of the entire area of the territory. The aggregate number of farms was 4174 (not including those of the Pueblo Indians), and of these 3085, or nearly three-fourths, depended upon irrigation. The average size of irrigated farms, or rather of irrigated portions of farms, was 30 acres. The irrigated farms have been classified as follows: Three irrigated farms of 640 acres or upward, 14 of from 320 acres to 640 acres, and 46 of from 160 to 320 acres. These 63 farms contained an average of about 312 acres each, and had a total area of 19,676 acres, over one-fifth of the entire amount watered in the territory. The remaining 3022 farms, under 160 acres in size, comprised nearly four-fifths of the total irrigated area, and averaged 24 acres each; that is to say, two per cent of the farmers of the territory owned over one-fifth of the productive land excluding the non-irrigated areas, and the remaining 98 per cent of irrigators cultivated farms whose average size was 24 acres.

It is shown that the average first cost of water right is \$5.58 per acre, and the average cost of preparing the soil for cultivation, including the purchase price of the land, is \$12.96 per acre. The average present value of the irrigated land of the territory, including buildings, etc., is reported as \$50.98 per acre, showing an apparent profit, less cost of buildings, of \$32.44 per acre. The average annual cost of water is \$1.54 per acre, which, deducted from the average annual value of products per acre, leaves an average annual return of \$11.26 per acre.

Students of the cost and products of irrigation will be interested to see, the close agreement in these items between the two adjoining Territories of Arizona and New Mexico, as shown in the following table:

	Arizona.	New Mexico.
Total irrigated acreage in crop.....	65,821	91,745
Total number of irrigators.....	1,075	3,085
Average size of irrigated farms in acres.....	61	30
First cost of water right per acre.....	\$7.67	\$5.58
Annual cost of water per acre.....	\$1.55	\$1.54
First cost per acre of preparation for cultivation.....	\$8.60	\$11.71
Present value of irrigated land, buildings, etc., per acre.....	\$43.63	\$50.98
Annual value of products per acre.....	\$13.92	\$12.80

Concerning the ownership of water in New Mexico, the bulletin makes the following significant remarks:

Although in the Mexican methods of controlling water there is much to criticize, there is nevertheless one fact which is worthy of commendation, and that is that the control of water is in the hands of the farmers. The general appearance of shiftlessness and the lack of progress are due rather to climatic and race characteristics than to the defects of the agricultural system, and there is no doubt that the security of water right has been insured by this common ownership of the chief source of agricultural wealth, viz., the running water. From many of the localities where the irrigators do not control the water, there come complaints of the exactions of the corporations that own the great canals. Not only are the annual assessments declared to be unreasonably heavy, but expensive water rights are said to have failed to furnish the promised supply to the parched and withering crops.

## ENTOMOLOGIST AT THE EXPERIMENT STATION.

The Regents of the University have appointed Mr. C. W. Woodward entomologist of the Arkansas Experiment Station as assistant in entomology on the staff of Director Hildgard of the University Experiment Station at Berkeley. Mr. Woodward is a young man of marked attainments in his line of work. He is a graduate of the University of Illinois and afterward studied with Dr. Hagen, the noted entomologist at Harvard. He has made a good record in experimental work in economic entomology, a branch of applied science in which he has the fullest faith and pursues with energy and enthusiasm. He will find an excellent field for his chosen specialty in this State and will do his best to prove his value to California producers.



## A Beautiful California Garden.

There is probably no spot in Southern California which can equal the floral garden of Mrs. T. B. Shepherd of Ventura. Travelers who have visited it say they have never seen in any one spot so many choice plants of all kinds growing in the open air all the year—they have seen wonderful and choice collections in hot-houses and greenhouses—but nothing so varied outside.

The garden occupies the greater part of a block, just east of the Rose hotel, and nestles close up to the hill which rises behind it. On the east side of the garden is a row of pepper trees which shelter it from that direction and

many rare plants, found only in the tropics or in green-houses. It is a wonder, this garden; and the wonder grows upon being told that all this rare lot of exotics simply grew out of doors all the year.

There is one house which is covered with rose vines, in which are growing many fine varieties, another overrun with passion vines. In one part of the garden is a variety of tomato trees, with its ripe and palatable fruit, a novelty in its way.

She has raised a set of ten seedling, large flowering French cannas—all very distinct and beautiful in form, color and foliage. One we noticed, a magnificent deep shaded red with immense trusses of flowers, the individual flower measuring five inches across, petals  $1\frac{1}{2}$  to  $1\frac{3}{4}$  inches across. Another with branching spikes resembling a scarlet candelabra, each in

since she first commenced her work, securing her varieties by cross-fertilizing the flowers and saving the seed. She now has about 500 large bulbs in 15 or 20 varieties, and 2400 seedlings grown from these.

Among the new plants which originated in this garden is the General Vandever fuchsia, named for our fellow-townsmen and member of Congress. This is a magnificent plant with rich green foliage and immense single flowers in wonderful profusion, a rampant grower. Another variety, Ipomoea "Heavenly Blue," a cross between Ipomoea Lear and Mina Lobata. The foliage is very large, heart-shaped, thick and light-green; flowers  $4\frac{1}{2}$  to 5 inches across, in large, airy clusters and of that indescribable heavenly blue so rarely seen in flowers. The throat is yellow inside, spreading softly into the line. In the morning about 10 o'clock no

for the cut-flower trade and for decorating, and by fall will be able to ship them in large quantities.—*Ventura Free Press.*

## The Buffalo Pitts Traction Engine.

The season of special activity in traction engines is at hand. It seems likely from the many uses to which engines of this sort can be put in California that they will become an all-the-year resort for the large-scale California farmer, but at present their chief sphere is found in harvesting our great grain crops. We have illustrated several styles of these engines and the engraving on this page shows the Buffalo Pitts Traction straw-burning engine, as especially built for the California trade, conducted by Baker & Hamilton of this city and Sacramento. The engraving gives an excellent idea of the de-



BUFALO PITTS TRACTION STRAW-BURNER—FOR PLOWING AND PULLING COMBINED HARVESTERS.

save from that shelter, the garden lies wholly exposed to the full force of the weather.

Some five years ago, Mrs. Shepherd began, in a small way, the cultivation of flowers, looking after all the details herself. She now occupies the half-block of land to its full capacity, and has besides five acres of land in the country, and an additional lot near by in town. She employs two men constantly about the garden and makes a practice of starting every slip and potting every plant herself. There are five lath houses, in addition to one recently built 41x27 feet in size; also a glass house 24 feet long.

Mrs. Shepherd has all these houses filled to overflowing with plants and flowers of endless variety. Upon entering the garden a person is struck with the hedge of bellotrope which borders the front and with a magnificent row of gold and bronze-hued foliage geraniums just back of it. Here and there through the garden are magnificent specimens of Pinsetta with their long crimson blossoms, some of which are 18 inches across, while the plant itself rises 12 feet high. Here are rare begonias, orchids (30 sorts) stag-horn ferns, roses amaryllis, thymus lanifolia, with violet blue glaxina-shaped blossoms, asparagus plumosus nanns and

dividual flower started out distinct from the stem; in color a rich orange scarlet with a yellow throat. Mrs. Shepherd considers her new set very valuable, and expects to offer them to the Eastern trade as soon as her stock will admit.

She gives much attention to the growing of new varieties of plants, and is continually experimenting in the crossing of begonias, amaryllis, cannas, etc. She grows bulbs and seeds in large quantities for the wholesale trade East, taking contracts in the spring for fall delivery.

Mrs. Shepherd superintends all her work and business herself; has entire charge of her green house, with the growing of plants from cuttings and seeds; writes all her business letters, which average 800 or 1000 a year.

She has recently made great improvements and added to her facilities for work, and has an immense stock of everything for the retail trade. She issues this year her third retail catalogue and her fourth wholesale trade list of bulbs, seeds and plants. Her specialties are calla lily bulbs, smilax seeds and oanna roots and seeds. She is also preparing to sell cyclamen bulbs in large quantities next season. She has been working up a stock of amaryllis

lovelier sight can be imagined than this climber, which is completely covered with bloom, so much so as to almost cover the foliage. Every one who sees it for the first time is filled with delight at its beauty, exclaiming, "That is the loveliest thing I ever saw." Then a fine carnation claims one's attention—"Desdemona," a large, regular, perfectly shaped flower; a beautiful light cherry color, exquisitely fragrant, and, as Mrs. Shepherd informs us, a perpetual bloomer, especially valuable in winter and spring. It never hursts; has long stems and is very healthy.

Mrs. Shepherd says that Ventura is peculiarly adapted to flower culture, owing to its perfect location. The cold wind from the north or east is warded off by the hills in the rear of the town, while the proximity of the sea keeps the atmosphere at an extremely even temperature. To appreciate the beauties of flower culture and the magnificent varieties which can be raised in Ventura, the garden spot of the world, Mrs. Shepherd's floral park should be visited.

Mrs. Shepherd is preparing to go largely into the growing of roses, carnations, violets, and various other flowers, with ferns, English ivy, palm leaves, cypresses, papyrus, smilax, etc.,

sign of the machine, three-quarter view, as the photographer would say, and in an advertisement on another page of this issue may be seen a near view which exhibits many important mechanical details.

The Buffalo Pitts Traction engine has been in use for some time in California for pulling combined harvesters, plowing, etc., and the manufacturers in their circular make the following claims for it: 1st, that it will pull any horse combined harvester built; 2d, that it will pull twelve 12-inch plows or more, according to condition of soil; 3d, that straw, wood, or coal can be used for fuel, and full steam maintained with either kind of fuel; 4th, by reason of its large horsepower, is a perfect engine for road hauling.

The circular to which we refer gives a very full and satisfactory description of the engine in all its parts, and should be carefully read by all interested in this class of machinery.

THE FIRST WATER MILL ever built was erected on the River Tiber, at Rome, A. D. 50. Windmills were in original use in the twelfth century. Tide mills were operated in Venice about 1708. Sawmills are said to have been in use at Augsburg, Germany, about 1332.



# AGRICULTURAL NOTES.

## CALIFORNIA.

### Butte.

**PLANT BETWEEN TREES.**—Biggs *Argus*: From the fact that in Ventura and other counties orchardists raise paying crops of beans, potatoes and other vegetables between the rows of trees in their orchards, we are led to believe that our horticulturists are not as well up in the secret of making ends meet as their brethren of the south. Beans are always a paying crop and no soil of the State will raise better beans than Butte county land, and not only beans, but potatoes, onions, peas, melons, sweet potatoes, beets, etc., all produce well and meet with ready sale. It will require but little more work to cultivate with the vegetables growing, and the income will pay all expenses while the trees are maturing.

**PALERMO'S FRUITS.**—*Progress*, May 8: Evidence of our hazy climate are rapidly becoming visible. Luscious strawberries and juicy looking cherries are in the local markets, while other fruits give evidence of fast-approaching maturity. The deep-green foliage of the orange trees is relieved here and there by clusters of white, waxy blossoms, which by fall will have developed into golden fruit. Their fragrance in the evening after a warm day is something superb and delightful to those who happen near them.

### Colusa.

**THE COST OF A GARDEN.**—*Williams Farmer*: Anyone who doubts that this country will produce garden vegetables in abundance and without irrigation, has only to call on Mr. Nelk to have all these doubts removed. He has trusted only to the productiveness of the soil and the moisture in the ground. The work he has done at odd times would not amount to two days' work, while the outlay in money for seeds was but one dollar. It has and will furnish his family with vegetables all summer. He says his bill for vegetables through the summer has always been nearly \$75, but this summer it is only two days work and \$1 in cash, while the vegetables are always fresh and good, none of the wilted, tough variety usually sold by peddlers.

### Contra Costa.

**A WELL ORDERED RAIN.**—*Antioch Ledger*: Our farmers have been blessed with another very opportune rain this week. It has come just in the nick of time and in a manner to do the least damage and the most good. This has been the record of all the rain storms this season—they have come every single time just when most needed. Grain has just begun to show the need of rain, but farmers were afraid to have it come, because April and May showers, generally do more damage than good. On Tuesday night, however, it began to rain just as though it was ordered for the purpose. It was a gentle, misty shower, and the moisture went to the roots without breaking and damaging the stalks. It was a well ordered rain and no mistake.

### El Dorado.

**CROP AND STOCK NOTE.**—*Shingle Spring Cor. Democrat*, May 9: Grain and fruit crops promise fair here. Some of the farmers have commenced to make hay. Stock men will soon make preparations for starting to their mountain pastures, unless we have a storm within the next two weeks, which of course would prevent them from starting for a few days later.

### Glenn.

**COLONIZING A LARGE TRACT.**—*Willows Journal*, May 9: A party of capitalists have organized a grand colony of 60 families for the Mille Tract, which is 9 miles west of Willows. Mr. Wm. Humius, manager of the sugar factory at Grand Island, Neb.; Robert Mack, San Francisco; and Fred Van Keester, member of the press, Amsterdam, Holland, who made the arrangements to colonize, were all in town last week and made a visit of inspection to the tract. Besides a prospective sugar factory, there will be fruit to dry and can and pack.

### Kern.

**FRUIT NOTES AT MIRAMONTE.**—*Cor. Bakersfield Californian*: This has been a splendid season at Miramonte for trees and vines. Everything set out has developed finely and the percentage of failures will be on an average less than three per cent. More French prunes were set out this spring than of other varieties; next in number White Adriatic figs, next Muscat grapes, and a few peaches, apricots, neotaries, etc. Older trees are making a fine growth. One-year-old apple, plum and apricot trees on Mr. Raymond's place have made from three to four and a half feet of new wood already, many of them having a little fruit. Mr. Hatch has many Muscat set out last year that have from 40 to 50 well-developed bunches of grapes, and there are but few vines that have less than 12 to 20. Mr. Kolb's vines of the same age are heavily loaded. This is surely a grand country for fruit, and being so independent as we are in the water question, our artesian wells flowing so abundantly, this, in a few years, should be a very beautiful and prosperous country.

At J. E. Smith's place, on the Weed Patch, this year's growth of the two-year-old grape stocks is enormous. The tendrils reach up to a man's arm-pits and have the dark rich green color which betokens luscious growth. His orange trees set out only last year are all in blossom.

## Los Angeles.

**SUMMER-FALLOW VS. BROADCAST CROPS.** *Esperanza Cor. Times*: Crops in this vicinity are spotted, but there will be enough raised for seed and feed next year. The curious feature is that wheat put in as it has done best in former years has proved the poorest this season, summer-fallow being an entire failure, while the latest, sown broadcast on fresh plowing has done best.

**STRAWBERRY SHIPMENTS.**—*Covina Argus*, May 9: Strawberry growers are kept busy these days. Robt. Baldrige and C. Vaughn are shipping from 700 to 1000 pounds per day each, while numerous small planters sell the shipments to large proportions. The late hot weather has brought the berries on with a rush. Thos. Griswold and Penn Barnes each report big yields.

**ORANGE PROFIT THIS YEAR.**—*Covina Argus*: Mr. D. H. Turner, living between Covina and Gladstone, hands us the returns from one acre of seedling oranges for this year, and we wish to say that the following statement is no guess-work, but absolutely reliable figures, being the exact amount of money received in cash from the one acre, and the liberal allowance for all labor performed for the year:

Cash received for fruit	\$635.00
Cash paid for water	3.75
Labor irrigating three days	4.50
Cultivating five days	15.00
Total expense	23.25
Net cash returns	\$611.75

Mr. Turner's land in this orchard looks like a sand heap and gravel-bed, and takes less labor and water than heavier soils, but the secret of its productiveness lies in the fact that the soil is not what it seems, but just under the sand which forms a mulch to retain the moisture is many feet of the fine soil of this region.

### Monterey.

**TWO THOUSAND FIVE HUNDRED ACRES TO SUGAR BEETS.**—*Castroville Enterprise*, May 8: J. B. H. Cooper has leased to Claus Spreckels 2500 more acres of his ranch at this place. The tract just rented lays between Cooper's switch and the river, and running toward town. It will be planted to beets next year.

**CROP PROSPECTS.**—*Salinas Democrat*, May 9: The present crop outlook is decidedly cheering. Around this city and down as far as Moss Landing it will be the best harvested for several years. The average crop throughout the county, both of wheat and barley, will be considerably in excess of that of last year. *San Lucas Cor. Democrat*: While many of the farmers are blue as a whetstone, one would imagine the crops of the farmers of Long Valley and Freeman's Flat have been "sun-struck," for the heat of last week has left its mark quite visible, and many fields are suffering. Crops on the Trescony grant, while not as promising as in past years, will make a fair yield, providing the hot winds do not come.

### Orange.

**FRUIT PROSPECTS.**—*Blade*, May 7: The fruit prospects, as reported by reliable heads of different sections of the country, are given in the following terse statements: Apricots, scattering; crop will not be more than one-fourth as large as it was last year; peaches, plentiful; prunes, abundant; pears, immense; apples, too early to predict—not in bloom; strawberries, moderately plentiful; blackberries, millions of them.

### San Joaquin.

**LODI STRAWBERRIES.**—*Lodi Sentinel*, May 9: The shipment of strawberries from Lodi for the week ending Thursday amounted to about 5000 pounds. The quality of the Lodi berry is second to none in the State and the yield is remarkably large. Those who have raised berries this year will increase their acreage next season, and a large number have signified their intention of engaging in the business. Messrs. Peirano, Cliff and Mason are the principal shippers from this point.

### Sacramento.

**SWARMS OF GRASSHOPPERS OR LOCUSTS.**—*Record Union*, May 11: After an absence of several years, grasshoppers, or locusts, have again made their appearance in swarms in the eastern portion of the county. About seven or eight years ago, they devastated the farms in the vicinity of Cochrin's and White Rock, between Folsom and Lodi, and did considerable damage, as in this direction, at Brighton. About White Rock the locusts were so thick as to block up the doorways of the farm-houses by the drifting process, being piled up in some places to a height of several feet. When they died, the stench was almost unbearable. Out in the fields, they stripped the vegetation, including the trees, of everything green, causing the country to look as if a sirocco had swept over it. Referring to their appearance in that locality, the *Folsom Telegraph* says: "Millions of them are destroying everything they can get hold of, and considerable alarm is felt over their appearance and the result of their visit. They came too late to do any great damage to the hay crop, which is nearly all in. Other things will surely suffer loss unless they disappear. Those that are here are, from what we can learn, very small, but they are voracious and have done a great deal of damage already. A few years ago they visited the State and caused great damage. There was no way to combat them." The insects are also operating in the vicinity of Cosumnes, according to the *Galt Gazette*, which says: "Millions of grasshoppers have appeared on the ranches along the

rich bottom lands of the Cosumnes. The destructive pests are reported to be moving in a southwesterly direction, and are playing havoc with corn patches, fruit trees, vines, grain crops, garden truck, and in fact everything green that comes in the path of their destruction. Much uneasiness is felt by the farmers and fruitmen near Howell's, and there is no telling the extent of the damage, should the grasshoppers keep on multiplying as they have in the past week."

### San Luis Obispo.

**STOCK NOTES.**—*Creston*, May 8: The plains men are beginning to send their fat stock to market. Some large droves from the Carls country are moving toward shipping-points. J. V. Webster started quite a drove of hogs cityward the past week.

**GRAIN, FRUIT AND GARDEN NOTES AROUND CRESTON.**—*Cor. Tribune*, May 8: The grain crop throughout this county is looking fine. Taken as a whole it is by far the best crop ever seen here. The crop on summer-fallowed land is heading out in good shape. The way the wheat crop looks now, both in healthy growth and a fair price, the grain farmers stand quite a good show of making both ends meet. The prospect for a bountiful yield of fruit is good. Orchards and vineyards are in fine condition. Fruit trees and vines are healthy and making a vigorous growth. Thorough cultivation has been given by all our fruit men to their ground this season. The wide-awake men and women of this section believe in doing good work toward the advancement of the county. We notice that they do not stand on a little outlay and work, but put forth their money and efforts to help develop the hidden wealth there is in the country. On J. V. Webster's place you will not only see fields of grain, fruit trees and vines, but a fine vegetable garden, and also a splendid array of flowering plants. It is a good thing to have a helpmeet who believes in beautifying the home grounds with beautiful flower gardens. So while J. V. is on an endless round, swinging around the circle, caring for others' interests, his better half is putting forth her efforts in making the home attractive. At J. G. Schroeder's we see a splendid flower garden in which is an array of pinks, verbenas, and a host of other flowering plants that would rejoice the heart of a professional. A fine vegetable garden is to be seen here, which clearly demonstrates that no farmer on lands in this section need to forego himself the pleasure of being the possessor of both vegetables and flowers, if he will only put forth the necessary effort to obtain them. A little outlay on every farm, put into a system of irrigation from wells would add many a necessity and comfort to the home.

**LARGE PLANTING OF PEANUTS.**—*Campbell Cor. Mail*: E. B. Lewis of San Jose has planted five acres of peanuts on his ranch, just south of the village. This is a new enterprise for this section, but there is no reason why it should not be successful.

### Santa Barbara.

**BEAN PLANTING.**—*Carpinteria Cor. Star*: Beans, beans, everybody is planting the California staple, and those of this section who are entitled to know say that this year's crop will supersede the production of the past several years.

### Santa Clara.

**A NEW WORM FRUIT PEST.**—*San Francisco Alta*, May 12: Many of the orchardists in the Santa Clara valley are considerably alarmed at the depredations of a worm something like a caterpillar, which has recently appeared. In the Willows district, near San Jose, and off on the hills toward Saratoga the damage is worst. It is said that many trees look as though bird-shot had riddled the tops. The branches in places have been eaten entirely barren of leaves. The worms vary from one to one and a half inches in length. They are not sluggish in movement like the average caterpillar. Mild paris green sprays they do not seem to mind, and the only cure remedy practiced thus far is individual extinction. When the trees are shaken hard, the worms fall and then they are crushed. The news of the depredations has had the effect of making all prune-growers resolve to sign no contracts for the disposal of their crops until they see the full extent of the damage. It is reported that as high as three cents a pound has been offered some growers and refused. The worm has troubled apricot trees somewhat, but not to the extent it has prunes.

### Solano.

**EARLY SHIPMENT OF APRICOTS.**—*Vacaville Enterprise*, May 9: G. W. Hinkley of the Sky-high ranch shipped yesterday by express to Porter Bros. & Co., Chicago, a ten-pound box of Royal apricots, the first of the season. Last year Mr. Hinkley shipped apricots May 10, which were sold for 50 cents per pound.

### Sonoma.

**FORESTVILLE FARM AND ORCHARD NOTE.**—*Cor. Democrat*: The torrid wave that swept over this section last week has given way to cool, foggy weather, with mist that nearly amounts to rain. Grain is making a wonderful growth, and some are afraid that it will fall, which is very probable if this continues. Fruits of most kinds are doing well generally, but we are threatened by a large army of caterpillars that has appeared on Wm. Hill's ranch, occupied by Mr. Marsh. I have not seen them but am told that they literally cover the trees, and devour everything available. Mr. W. N. Gladden, the Healdsburg Commissioner of

Horticulture and fruit pest inspector, visited some of the orchards here last week, the object being to observe the effect of the different kinds of disinfectants used for the destruction of scale insects. Some have commenced to plant corn. Siphoning grapevines is in order now; this weather will develop mildew.

### Stanislaus.

**GRAIN CROP PROSPECTS.**—*Modesto Herald*, May 7: From interviews held with farmers from various parts of the county during the past week, we hear the cry that the grain crop has been seriously injured by the late hot dry weather. The early crop, in some localities, is reported to be out off at least one-half. It is to be hoped that later developments may prove that the damage to the crop is not so great as has been estimated.

### Sutter.

**AN OBNOXIOUS WEED.**—*Farmer*, May 8: We notice this season that many farmers are making an extra effort to get rid of the mustard in their fields. This weed is one of the worst enemies to growing grain and increases rapidly when allowed to go to seed. Many have employed large gangs of men to go into the fields and pull the mustard up by the roots, which destroys it at once. This seems to be the best plan when it is scattered through the fields, but where it is very thick some are using headers which cut off the tops of the weed and prevent it from seeding. Great care should be taken not to allow the weed to spread, as it destroys the growth of the grain and makes the product unsalable as seed. No one will buy wheat or barley for seed which contains any mustard. The mustard is now in full bloom and should be destroyed at once.

### Tulare.

**GRAIN CROP PROSPECTS.**—*Visalia Delta*, May 8: Grain crops in the south central are almost a total failure. In a few places only will it be possible to secure even a partial crop of grain. Several fields will produce a half crop of hay, and a larger number will return nothing to the farmer. The eastern part of the valley and the foothill region fare better, also the northern portion. In some localities, the yield will be large. On the West Side, with the exception of one or two small patches, the crops are a total failure. The north central part of the county will have fair crops, and in the Lucerne region, they are above the average. It is impossible to form an estimate of the probable yield at the present time, the crops being in most places more backward than usual at this season.

**WANTS THE BEE DECLARED A NUISANCE.**—*Visalia*, May 6: One hundred and twenty-three citizens of Lucerne township petitioned the Board of Supervisors, at its April term, to declare the honey bee a nuisance, claiming that the bee worked destruction to the raisin industry. As to whether honey bees do work an injury to the fruit and raisin industry, it is a question on which scientists and horticulturists have often differed, and the matter has never been clearly decided either in the negative or affirmative. There are men in this county, however, who in early times settled on land that later proved to contain too much alkali to be farmed with a profit, and it is on such lands that men have engaged in the bee industry, and thus maintained their families. These men cannot go to the hills, because the cattle men will not allow intruders to settle on their range.

**CATTLE FOR IDAHO.**—*Visalia Times*, May 7: Two trainloads of cattle left yesterday for Winnemucca, to be taken from that place to Idaho. One train had about 300 head belonging to Commodore Murray and R. H. Stevens. The second trainload and a portion of the first contained cattle belonging to Richard Chatten and Henry Fulgham, and consisted of about 800 head.

**SHORT HAY CROP.**—*Visalia Delta*, May 8: Haying has started in for the season, but there is very little hay to cut this year compared to former years, and the horse feed will no doubt go up.

### Yolo.

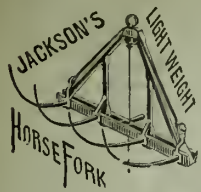
**CROP PROSPECTS.**—*Davisville Cor. Express*, May 9: The crops have been improving with the warm weather and showers. The rain this week has been a bountiful help. It will improve much of the winter-sown grain, which has been rather backward. There are some fine fields of grain as one would wish to see, but the great body of the winter-sown will not be extra in its yield. If grain continues to hold up and advance, there will be a shortage on hay, as the farmers will reserve every acre for grain that promises a reasonable yield.

### Yuba.

**COMPETING FOR EARLY HOPS.**—*Four Corners*: For the past two years Wheatland has made the first carload shipments of hops on the Pacific Coast, but Sacramento county has been the first with a few bales. This early movement of Sacramento was occasioned by a few vines which a grower had planted in an extra warm nook next to a levee. Wheatland will next year compete for the first bale as well as the first carload shipments, as one of our growers has planted in a fertile spot about a quarter of an acre of vines which are doing nicely. From indication, they will burr out inside of the next three weeks; if such is the case, the hops on the vines will be ready for picking two or three weeks before the yards.

**GRAIN SCARC.**—*Wheatland*, May 9: Barley is a very scarce article in this neighborhood. The Mill Company has been obliged to order several carloads from the San Joaquin valley.





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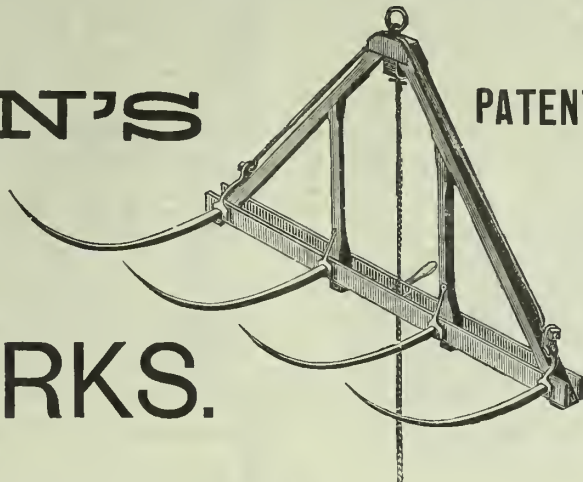
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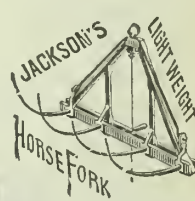
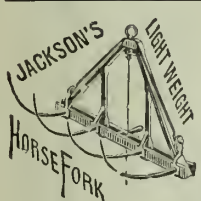
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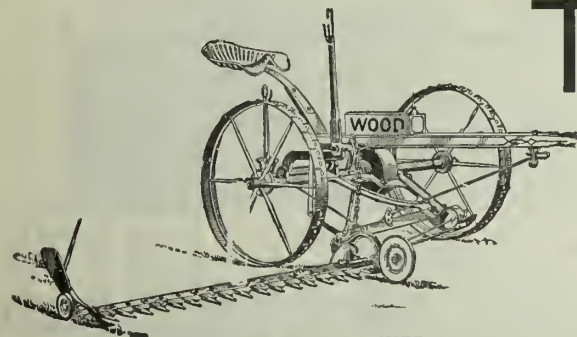
### INFRINGEMENTS.

## NOTICE!

Farmers and Dealers are notified that forks are being offered in this market, so closely resembling mine as to deceive the unwary. I have suit pending against the parties for infringement of my patent rights, but in the meantime, take this opportunity of cautioning the public as, under the law, both makers, venders and users are liable for infringement.



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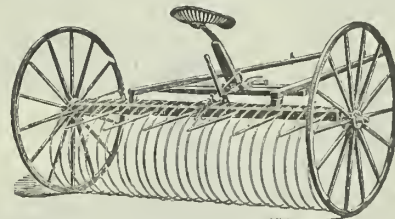


ENCLOSED GEAR MOWER.

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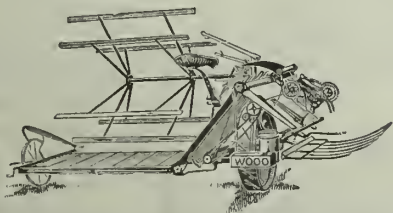
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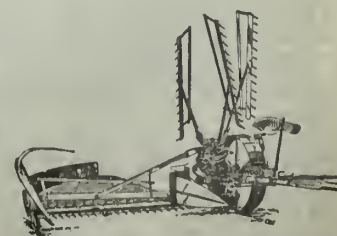
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LIGHT ENCLOSED GEAR REAPER.



## GOOD HEALTH.

## Microbes and Disease.

Pasteur was among the first to take up and study the subject of the germ origin of disease. His specialty was hydrophobia. He held that a certain kind of disease germ, when numerously developed in a dog, produced hydrophobia, and that such germ might be communicated by the saliva; but, contrary to the later observed action of microbes, the hydrophobia germs lost their power of communicating their particular disorder (rabies) on becoming dry.

Dr. Henry Gibbons, in a recent lecture at the Cooper Medical College in this city, when speaking of the origin of microbes, remarked that all dead animal and vegetable substances tend to decomposition, creating foul odors and gases and developing microbes. Some of the microbe germs and spores caused by putrefaction would survive boiling in water. Certain of these germs are so small that 28,000,000,000 of them are found in a single drop of water. A drop of water will contain more of these little animals than there are inhabitants on the globe. Enough of them would be germinated in a few days to fill the great oceans, if they all survived. Fortunately they die young.

False ideas prevail regarding antiseptics and disinfectants. Many of the popular liquids merely destroy bad smells by worse odors. Boiling water and heated moisture are among the best and cheapest disinfectants. Heat will destroy the germs of scarlet fever and small-pox. Spores when dried are exceedingly hard to kill. Some will survive boiling water.

ability of rendering the tissues unsuitable for the growth of organisms after their entrance into the system, he cautioned his audience not to be carried away too hastily by Koch's or Liebreich's methods of treatment for tuberculosis.

As a word of caution to accompany the above we give the following paragraph from the pen of a writer in a New York journal who, in commenting upon the report of the *Lancet*, says: "The remedy proposed for ordinary throat and nose diseases may be worthy the consideration of physicians who have cases of la grippe under their charge. It is a fact that the latter disease is very prevalent in a great many of our populous places, and that it seriously affects the nose, throat and respiratory organs, and it is not improbable that the cause may be produced by some form of bacteria which the remedy proposed may relieve. But persons should beware of the use of carbolic acid in the manner suggested, except under the direction of a skillful physician."

**CURIOUS ACCIDENTS.**—Mrs. Eliza Foster, 59 years, of Philadelphia, recently fractured a rib while trying on a pair of boots at a shoe store. As Mrs. Foster was pulling one of the boots on her foot a crack was heard, and she complained of great pain. She was taken to the hospital. Here, says the *Philadelphia Press*, is the 45th case of the kind known to the medical profession. Another remarkable case is reported of a needle which had found its way into the body of a Springfield, Mo., woman and which after a devious experience and travel of 35 years, came out through her side the other day. The needle had lost its temper and was as pliable as a piece of wire. Still another, a wonderful case, of a Pennsylvania woman, 79

## THE PUBLIC LANDS.

## Cutting Timber on Public Lands.

## It May Be Done for Certain Purposes.

Commissioner Carter of the General Land Office, with the approval of Secretary Noble, has issued to registrars and receivers an important circular letter of instructions which shall govern in carrying into effect the sections of the General Land Act of March 3, 1891, relating to the cutting of timber from public lands. These sections only apply to the States of Colorado, Montana, Idaho, North Dakota, Wyoming and Nevada, the Territory of Utah and the District of Alaska.

The important features of the circular are as follows: "Settlers upon public lands, miners, farmers and other bona fide residents in either of the States, District or Territory named in this Act, who have not a sufficient supply of timber on their own claims or lands for firewood, fencing or building purposes, or for necessary use in developing the mineral or other natural resources of the lands owned or occupied by them, are permitted to procure timber from the public lands strictly for the purposes enumerated in this section, but not for the sale or disposal or use on other lands or by other persons; but this section shall not be construed to give the right to cut timber on any appropriated or reserved public lands, and the Secretary of the Interior reserves the right to prescribe and revoke such privileges.

"Persons, firms or corporations who desire to cut timber from the public lands for the purposes of merchandise, or for any other use whatsoever other than as defined in sections

it has been officially granted by the Secretary of the Interior, will render the party so offending liable to prosecution for trespass and subject his application to rejection.

"Sawmill owners, lumber-dealers and others, who in any manner cause or procure timber to be cut or removed from any public lands in violation of law, or these rules and regulations, whether directly or by men in their employ, or indirectly through contract or by purchase, are equally guilty of trespass with individuals who actually cut or remove such timber and are alike liable to criminal prosecution."

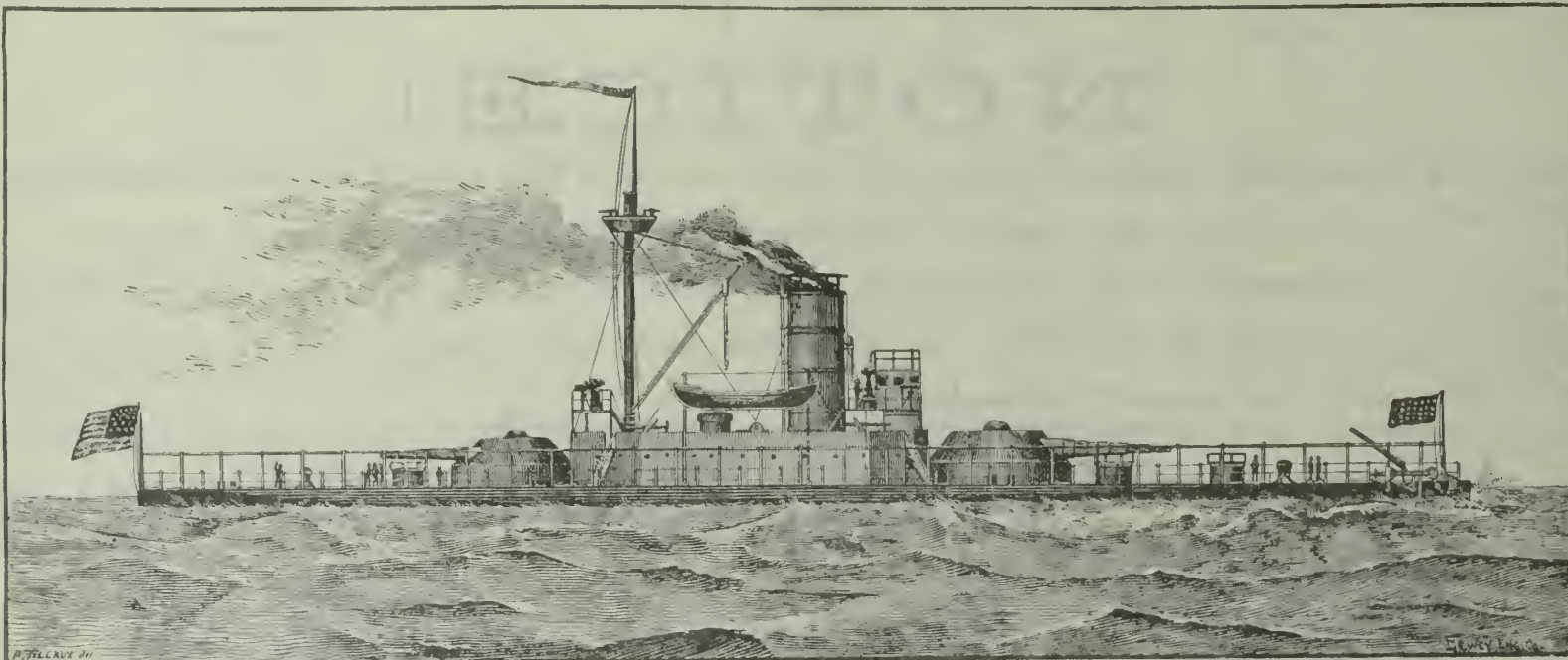
## The Cruiser Monterey.

## Description of a New Floating Fort.

An engraving is given on this page of the new double-turreted, twin-screw, armored coast defense vessel *Monterey*, recently launched from the yard of the Union Iron Works, in the presence of President Harrison and party. Mrs. Harrison touched the electric button which released the vessel from the ways. The *Monterey* is a low-sided vessel, as her picture shows, but she is powerful and strong, being well equipped for coast and harbor defense.

The contract for the construction of the vessel was awarded to the Union Iron Works June 4, 1889, and she makes the third man-of-war of the new navy launched from the ways of that enterprising firm.

The general dimensions are as follows: Length over all, 261 feet; load water line, 256 feet; extreme breadth, 59 feet; mean draft, 14 feet 6 inches; displacement, 4000 tons; displacement in fighting time, 4486 tons; armor belt amidships, 13 inches thick; indicated horse power of engines, 5400, estimated speed, 16 knots. The *Monterey* is constructed entirely of



THE NEW ARMORED COAST DEFENSE VESSEL MONTEREY.

Enforced cleanliness and soap and water are a preventive, but beyond them powerful disinfectants are also necessary.

Modern research seems to show that nearly or quite every disease has its peculiar microbe, the germs of which may lay dormant in the system until some peculiar condition is present under which they may be developed. The same peculiar condition may also render the system susceptible to their entrance from without.

## The Relation of Microbes to Nose and Throat Diseases.

At a recent meeting of a British Medical Association, Dr. John MacIntyre, of Glasgow, Scotland, gave an interesting lecture on the relation of bacteriology, to diseases of the nose and throat. In the course of his lecture as reported in the *London Lancet* the doctor discussed the general facts concerning bacteriology, such as classification, vital phenomena, etc., and stated the arguments for and against the vitalistic theory of disease. He demonstrated a large number of specimens of well known forms of micro-organisms under the microscope, as well as numerous microphotographs on the screen, and made special reference to those of interest in throat and nose work. He showed several found in the mouth and nose of healthy people, which are apparently harmless, and others found in diseases where there is decomposing material such as in ozæna. He referred to the specific forms found in diseases of the lower part of the respiratory tract, as tubercle, lnpna, diphtheria, pneumonia, and suppurative diseases.

Lastly, he discussed the question how protection was to be got from the diseases associated with micro-organisms, noting the result of inoculation. He explained some interesting experiments recently made in Glasgow with reference to the hypodermic injection of chemically pure carbolic acid, which he thought bade fair to demonstrate the possibility of rendering the effects of certain micro-organisms inoperative within the body. In considering the pos-

years old, has recently been reported. The woman who had been bent double with rheumatism for many years, and was two-thirds of the time confined to her bed, is said to have been completely cured by the fright caused by discovering a snake in the chimney. She is now entirely free from pain and is as erect and agile as a woman of 20.

## The Tobacco Crop.

The Census Office has issued a statement of the acreage and yield of tobacco for the year 1889, showing an increase over the last census of 55,223 acres and 19,052,440 pounds. The amount produced in Kentucky has increased over 54,000,000 pounds, and there has also been a substantial increase in North Carolina, Tennessee, Ohio, New York and Wisconsin. On the other hand, there has been a more or less serious falling off in Virginia, Maryland, Connecticut, Massachusetts, Pennsylvania and Missouri. The figures are liable to slight modification in the final revision, which has yet to be made, their publication having been hastened in order that they may be of service to the tobacco planters of the country for the coming season. The statement is based on the returns sent in by enumerators, supplemented by an extensive correspondence and considerable field work, which has been conducted by Prof. Thos. N. Conrad, under the general supervision of Mr. John Hyde, Special Agent in charge of the Division of Agriculture "A." The total product of the United States for the years named is as follows:

	Acres.	Pounds.
1879	638,841	472,661,158
1889	694,064	491,713,598

The State of California is credited with 84 acres and 73,317 pounds in 1879; 26 acres and 12,909 pounds in 1889. Though a decrease is thus shown, there is perhaps a wider general interest in the crop, as the application for tobacco seed offered by the University last winter shows.

2, 3 and 4 of these regulations, must first submit an application therefor to the Secretary of the Interior, designating the lands by sections, township and range, if surveyed, and if not surveyed describing the land by natural boundaries, and the estimated number of acres therein. They must also define the character of the land and the kinds of trees or timber growing thereon, giving an estimate as to the quantity of each kind, stating which particular kind or kinds they desire authority to cut or remove, and the specified purpose or purposes for which the timber or product thereof are required. The application must be sworn to and witnessed by not less than four reliable and responsible citizens of the State, District or Territory in which the land is situated, and who reside in the locality of the particular land described. The petitioner or petitioners should also submit with the application such evidence as can be procured to conclusively show that the preservation of trees or timber on the land described is not required for the public good, but that its use as lumber or other produce, and for the purposes named in the application, is a public necessity, and if deemed for the public interest the desired permission will be granted.

"In order that farmers who desire to have forests preserved in the interest of a water supply for irrigation, and all others having adverse interests, may have due notice of such application, the parties making application shall cause to be published, at least once a week for three consecutive weeks, in a newspaper of general circulation in the State, District or Territory, and also in a newspaper in the county, or, where there is more than one county, in each of the counties wherein the lands are situated, and a printed copy of the published notices must be submitted with the application, together with the affidavits of the publisher or foreman of each newspaper attached thereto, showing the same was successively inserted the requisite number of times and the dates thereof.

"The cutting or removing of any timber from the public lands described in the application by or for the applicant, before his author-

steel and has a double bottom throughout, there being 110 water-tight compartments in her hull that can readily be filled with water, submerging the vessel until only about one foot of her sides shows above water.

The *Monterey* is the first ship of the United States Navy fitted with the Ward sectional boilers. They were found after exhaustive trials and experiments by the Navy Department to be the best type adapted for use on coast defense vessels. Much of their merit lies in the small space they occupy, together with speedy steam generation, economic consumption of fuel and the easy manner with which repairs can be made in case of accident.

The engines, boilers, and magazines, in fact all the machinery will be well protected by armor, 16 inches in thickness, rendering their safety almost certain from the inroads of hostile projectiles.

It will easily be seen that with the completion of "Cruiser No. 6," the "Oregon" and the double turreted monitor, "Monadnock," together with those already built and in commission, San Francisco will soon be able to turn out a fleet of war vessels, well able to protect herself and the California coast.

**INDIVIDUALIZING.**—Never, since the "world began" says a cotemporary, did the individual man do his own thinking, as he is now doing it. This may bring chaos for a time, for man in a new role does not always act wisely. The labor question is being pushed too rapidly, and disaster for a time may be the result. The manufacturers may be compelled to organize for self-protection as in Australia; then the laborer will suffer. The labor leader never required the wisdom that he does now, not only to gain the greatest benefit at the least cost for those he leads, but even for self-preservation. The day of the cheap politician is rapidly passing, and the voters are looking for men and not cheap clap-trap. They are not turning grindstones so much as they were, and the party leaders will be as helpless as a barrel in a whirlpool before 1892.



**D**ON'T think that you run any risk in sending to WEINSTOCK, LUBIN & Co. for anything you may need. Goods not as ordered are returnable at *their* expense. That is one reason why they try so hard to have things just right the first time.

**D**ON'T imagine that there is anything mysterious or bothersome about ordering goods by mail. It's as simple as A. B. C. Some few hints as to sending money, etc., will be found on page one of WEINSTOCK, LUBIN & Co's Catalogue. Free to any address.

## WEINSTOCK, LUBIN & Co.

400, 402, 404, 406, 408, 410, 412 K ST.,

**SACRAMENTO, CAL.**

DRY GOODS, CLOTHING, HOUSEHOLD SUPPLIES, ETC.

**D**ON'T do for a day without the handsome Catalogue of WEINSTOCK, LUBIN & Co. Beautiful illustrations and full information about all kinds of Clothing, Dry Goods, Household Supplies, etc., for Men, Women, and Children. Over a quarter of a million people read it yearly.

**D**ON'T make the mistake of thinking you can buy elsewhere to as good advantage. WEINSTOCK, LUBIN & Co's prices styles and qualities have brought them the largest general retail trade on the Coast. Is not that trade *public verdict* that they hold first place?

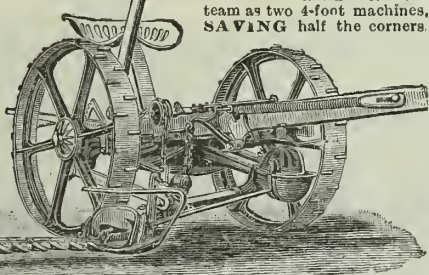
The following advertising souvenirs will be sent by WEINSTOCK, LUBIN & Co., free to any address, on receipt of two cents postage for each article. Not more than two articles sent to one address.  
No. 1.—"Tour of the World," a folder for the library table or school-room, contains 36 small views of the principal buildings and cities of the world. No. 2.—Small Round Pocket Mirror for men and ladies. No. 3.—Box of Wooden Dominoes. No. 4.—Book of Popular Songs with music. No. 5.—Harmonica for a child.

1

## STANDARD MOWER

ONE MAN AND TEAM instead of two.  
TWENTY ACRES A DAY instead of ten.

**CUTTER BAR** has no nuts or obstructions on top; the obliquely **RECESSED GUARDS** bolt to finger bar with nuts on under side, leaving upper side of cutter bar perfectly smooth surface. **MAIN WHEELS** made interchangeable—one wheel fits either side of mower.



**NO SIDE DRAFT**  
as **CUTTER BAR** is carried entirely on **Main Wheels**.

**7-FOOT** mower will do as much with one team as two 4-foot machines, **SAVING** half the corners.

**THE FOOT LIFT** raises cutter bar with perfect ease **without the aid of hand lever**, the first ever made.

**EASILY TILTED.**

**THE STANDARD MOWER** can be entirely taken apart and put together again by the farmer with a common wrench. **SEND FOR SPECIAL CIRCULAR.**

**STANTON, THOMSON & CO.,**  
SACRAMENTO, CAL.

Agents for Northern California.

**FARMERS' UNION,**  
SAN JOSE, CAL.

Agents for Central California.

## WHALE OIL SOAP

EIGHTY PER CENT DRY.

J. N. KNOWLES,  
Manager.

**ARCTIC OIL WORKS,**

EDWIN L. GRIFFITH  
Secretary.

—Manufacturers of—

SPERM, WHALE, ELEPHANT AND FISH OILS,  
MINERAL, LUBRICATING AND ILLUMINATING OILS,  
LARD AND TALLOW OILS.

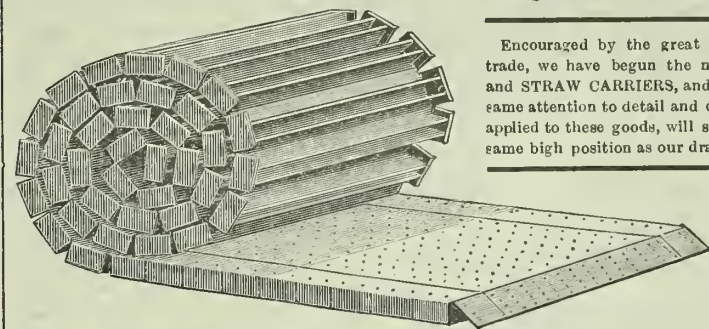
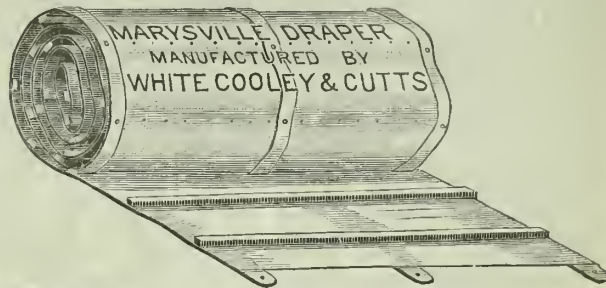
OFFICE, 28 CALIFORNIA STREET, SAN FRANCISCO.

## DRAPERS, GRAIN CARRIERS, AND STRAW CARRIERS,

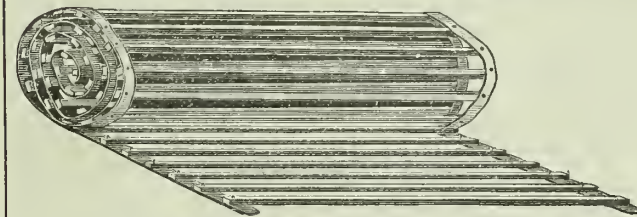
For Headers, Threshers and Combined Harvesters.

We have manufactured the **MARYSVILLE DRAPER** for 15 years, and our trade extends all over the Pacific Coast.

Excellence of workmanship and the use of the best materials are appreciated by farmers, as indicated by our large and growing trade.



Encouraged by the great success of our draper trade, we have begun the manufacture of **GRAIN** and **STRAW CARRIERS**, and feel confident that the same attention to detail and careful management, if applied to these goods, will soon place them in the same high position as our drapers.



**THE BEST**

—18—

**The Cheapest**

**LOW PRICE**

—18—

**NO TEST OF**

**CHEAPNESS.**

FOR SALE BY THE

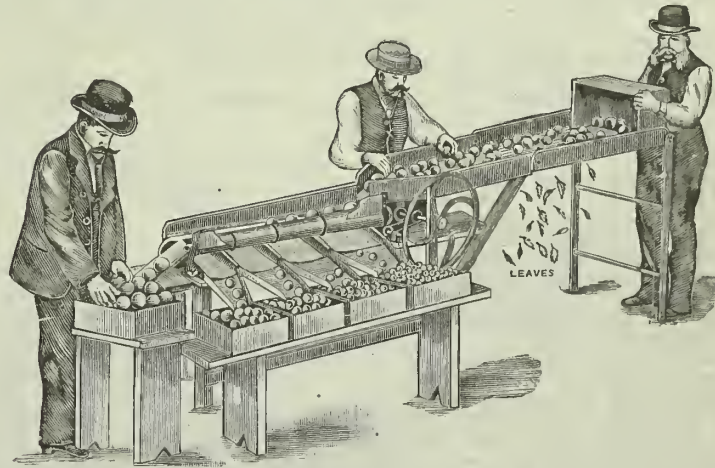
**Principal  
Agricultural  
Dealers**

ON THE COAST.

**WHITE, COOLEY & CUTTS,**

34, 36, 38 D STREET, - - - - - MARYSVILLE, CAL.

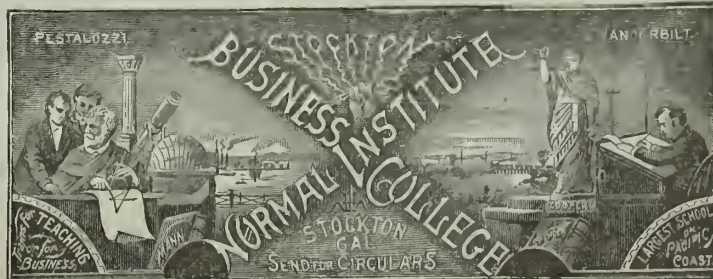
## NEW CALIFORNIA FRUIT GRADER.



**GRADES ALL KINDS OF FRUIT**—Oranges, Lemons, Limes, Apples, Pears, Peaches, Plums, Prunes, Apricots and Grapes. Also Potatoes, Onions and Walnuts. **THESE GRADERS TOOK THE FIRST PREMIUM AT THE STATE FAIR OF 1890** over all competitors, and the Silver Medal at the Mechanics' Fair at San Francisco the last two years. They are home manufacture and lower priced than any other grader in the market. Send for illustrated circular giving prices, capacity and testimonials.

**MOSHER, CHANDLER & CO., Manufacturers,**

118 FRONT STREET.....SAN FRANCISCO, CAL.



**THE LEADING FEATURE OF THE SCHOOL IS ITS HOME.**

**TUITION ONE YEAR (52 WEEKS).....\$75 00**  
**TUITION SIX MONTHS (24 WEEKS).....60 00**  
**EXCELLENT BOARD PER MONTH (4 WEEKS).....10 00**

Course Thorough, Rates Lowest, Instruction the Best, and School the Most Reliable.

**Address W. C. RAMSEY.**



## FLORIST AND GARDENER.

### Commercial Floriculture.

We have just received from Hon. Mortimer Whitehead, in charge of Division "B" of the census of 1890, a bulletin containing a most interesting and valuable report on Commercial Floriculture, from which we quote as follows:

While flowers and flowering plants were grown for sale to a very limited extent in this country 100 years ago, the business of the commercial florist has made the greater part of its development during the past 25 years, and the larger proportion of this business the past ten years.

After inquiry of every florist in the United States, the report indicates that there was but one commercial florist in the year 1800, and only three establishments started between 1810 and 1820; eight more were started in the next decade, 25 in the next, followed by 45 between 1840 and 1850, 96 between 1850 and 1860, 313 between 1860 and 1870, 998 between 1870 and 1880, and 1797 between 1880 and 1890.

The dates of establishment in business of 72 per cent of the florists have been traced, and judging from these it will be seen that 80 per cent of the whole business has been developed during the past 25 years. The business being of so comparatively recent development, and never before having been brought within the scope of census statistics, there have naturally been many obstacles in the way of making a complete report. The florists have generally responded with remarkable clearness, and while some have not given all the information desired, and a few have failed to respond even to many repeated requests, it is believed that the figures given fairly represent the business at the present time.

Floral establishments were found in every State and Territory except Idaho, Nevada, Indian Territory and Oklahoma, and while there is a possibility that there may be some small establishments in those places, the most careful inquiry has failed to find them thus far. In the United States there were 4659 floral establishments in the census year, 312 of which were owned and conducted by women. The total feet of glass in use in all these establishments was 38,823,247, and the establishments, including fixtures and heating apparatus, were valued at \$38,355,722.43. The value of tools and implements used was \$1,587,693.93. There were employed 16,847 men and 1958 women, the combined annual wages amounting to \$8,483,657. Fuel cost was \$1,160,152.66; 3,425,600 wholesale and 17,630,094 retail catalogues are annually issued, while \$767,438.21 was paid for postage, \$1,161,168.31 for advertising, \$534,221.86 for freight, and \$554,390.55 for express bills.

The total products were 49,056,253 roses, 38,380,872 hardy plants and shrubs, and 152,835,292 of all other plants, the value of which was \$12,036,477.76, and out flowers to the amount of \$14,175,328.01 were reported as sold.

The greatest area of glass in any one establishment reported was 150,000 square feet and the smallest 60 square feet, the latter a cozy attachment to the sitting-room of a New England farm-house, from which the lady of the house sells annually \$35 to \$50 worth of plants and flowers.

There are in the United States 965 State and local floral societies and clubs, besides the Society of American Florists, and to these and the more than 358 horticultural societies, combined with the educational influences of the agricultural and horticultural press, is largely due the rapidly growing taste for flowers and their culture, so plainly indicated by the figures of this report.

The statistics here given have been obtained direct from the florists themselves in answer to questions sent them on special schedules, by personal visitation and by combined efforts of some of the florists' clubs. The California State Floral Society went so far as to aid in the good work by appointing a special committee and making a careful canvass of the whole State, and the Census Office investigations fully corroborate the thoroughness of their work.

The following table shows, by States, the number of florists' establishments, number owned by women, largest and smallest greenhouse in each State, total square feet of glass, area of land cultivated, value of tools and implements, and total value of the establishments. New Jersey, situated as it is between the New York and Philadelphia city markets, makes the largest showing of any State in the Union in proportion to its size.

#### Statistics.

From the elaborate tables found in the census bulletin, we compile the following statement:

	U. S.	California.
No. florists' establishments.	4,659	150
Do. owned by women.	312	18
Square ft. of glass.	38,823,247	610,622
Acres cultivated.	12,161	423
Value tools, etc.	\$1,587,693	\$26,210
Value of establishments.	\$38,355,722	\$500,816
Men employed.	16,847	1,047
Wages paid men.	\$7,954,827	\$171,150
Women employed.	1,958	150
Wages paid women.	\$823,830	\$80,750
Roses propagated.	49,056,253	84,025
Hardy plants do.	38,380,872	3,665,300
All other plants do.	152,835,292	1,003,000
Plant sales.	\$12,036,477	\$1,548,883
Out flower sales.	\$14,175,328	\$150,000

#### Productions and Sales.

In this investigation it was found unadvisable to attempt to ascertain the number of plants propagated and sold of each variety, and therefore the inquiries were grouped under three heads: roses, hardy plants and shrubs, and all other plants, and under these heads most of the florists were able to furnish a complete statement of their business. Roses, both the plants and bloom, appear to be in the greatest demand. One firm making a specialty of rose propagation reports having sold 1,000,000 plants in 1889. Their plants were mostly small ones, grown in 2½-inch pots, sent out by mail all over the country, and delivered promptly and in good condition.

Other florists make a specialty of the rose for the production of cut flowers. Others, again, grow only carnations or violets, and wholesale their productions to the retail florists in cities. Still others grow a variety of both plants and cut flowers, and wholesale most of the entire product; and, in fact, this is the business of nearly all the large establishments, while the medium ones, of from 1500 to 5000 square feet of glass area, do mostly local business, largely at retail, of both plants and flowers. Many of these florists also do a considerable business in the spring season in the arrangement and planting of both public and private grounds, and especially is this the case with florists located near the summer resorts.

Of the plants sold the demand in the northern and eastern States is greatest for geraniums, coleus, roses, pansies, verbenas, heliotropes, carnations, chrysanthemums, palms, ferns, and fuchsias, nearly in the order named. In the south the demand is for roses, chrysanthemums, geraniums, coleus, palms and ferns, while California shows the demand to be largest for roses, carnations, chrysanthemums, geraniums, palms and pansies. There is also a very general and growing demand for aquatic plants, and specialists are giving marked attention to this branch of the business. Regarding cut-flower sales, reports show that, while there is a slight variation in the demands of the different markets, the greatest demand everywhere is for roses, followed closely by carnations. These two furnish about 65 per cent in value of all cut flowers sold. Violets, chrysanthemums, lilies, hyacinths, smilax, bonvardia, heliotropes, pansies and tulips, in the order named, supply 25 per cent more, while the other 10 per cent is made of orchids, tuberose, mignonette, primroses, camellias, daffodils, and many others cultivated in a small way to supply a special or local demand. In the final report it will be the endeavor to give a detailed statement regarding each class of production, insect enemies, remedies, etc. As to the profits in the business from the different classes of plants, 80 per cent of the reports mention roses as most profitable, carnations second, and violets third, while 20 per cent rank carnations first, roses second and violets third.

From the figures and statements contained in this bulletin it will be seen that this industry is in a healthy and prosperous condition, giving employment to thousands of persons and fair rewards for capital invested, in addition to which it is doing much toward the adornment of the homes and the elevation of the taste of people of all classes.

#### OF INTEREST TO BUTTER MAKERS.

The gold medal for the best butter at the Paris World's Exposition was awarded to Moulton Brothers, of West Randolph, Vt. In making this butter Wells, Richardson & Co's Improved Butter Color was used. This award has largely increased the sale of the Improved Butter Color, for every progressive dairyman wants to use the best. Don't let your dealer sell you other kinds on which he makes a larger profit.

No dairyman can afford to be without it, for it is unequalled in strength and natural June color. Send three 2ct. stamps to Wells, Richardson & Co., Burlington, Vt., for postage and packing of a sample bottle (to color 60 pounds), and see for yourselves how far ahead it is of ordinary butter color. If you never colored your butter, this article will increase its value several cents a pound.

#### TO CANE AND FRUIT GROWERS.

The attention of our readers is called to the two advertisements of the Blymer Iron Works Co., of Cincinnati, Ohio, which appear in this issue. Their Victor and Niles Mills and Cook Evaporators for Sugar Cane and Sorghum, have for many years been looked upon as Standard Machinery in all sections of the world where cane is grown. The "Zimmerman" Evaporators for Fruits and Vegetables have the same world-wide reputation. Parties in want of Cane or Fruit Machinery will do well to send for catalogue and prices.

#### ORANGE PLANTERS

Should read the advertisement of the Aloha Nurseries. The best varieties are offered at rates so low that no one need hesitate about planting for experiment, or for investment in places where the orange is known to thrive.

\$500,000

TO LOAN IN ANY AMOUNT AT THE VERY LOWEST market rate of interest on approved security in Farming Lands. A. SCHULLER, Room 8, 420 California St., San Francisco.

\$3,250,000

TO LOAN ON MORTGAGE ON RANCHES AND CITY real estate below market rates. HOWE & KIMBALL, 508 California St., S. F.

PLEASANTON seems a charming rural town. The Rose hotel, we understand, will accommodate many summer boarders, and at very reasonable rates.

Use "Suicide" Gopher Traps. They are the best. See advertisement in this paper.

## The Use Of

Harsh, drastic purgatives to relieve costiveness is a dangerous practice, and more liable to fasten the disease on the patient than to cure it. What is needed is a medicine that, in effectually opening the bowels, corrects the costive habit and establishes a natural daily action. Such an aperient is found in

### Ayer's Pills,

which, while thorough in action, strengthen as well as stimulate the bowels and excretory organs.

"For eight years I was afflicted with constipation, which at last became so bad that the doctors could do no more for me. Then I began to take Ayer's Pills, and soon the bowels became regular and natural in their movements. I am now in excellent health."—Wm. H. DeLancett, Dorset, Ont.

"When I feel the need of a cathartic, I take Ayer's Pills, and find them to be more

### Effective

than any other pill I ever took."—Mrs. B. C. Grubb, Burwellville, Va.

"For years I have been subject to constipation and nervous headaches, caused by derangement of the liver. After taking various remedies, I have become convinced that Ayer's Pills are the best. They have never failed to relieve my bilious attacks in a short time; and I am sure my system retains its tone longer after the use of these Pills, than has been the case with any other medicine I have tried."—H. S. Sledge, Weimar, Texas.

## Ayer's Pills,

PREPARED BY

Dr. J. C. AYER & CO., Lowell, Mass.

Sold by all Dealers in Medicine.



**HIRES**  
ROOT BEER  
THE GREAT HEAD DRINK.  
Package makes 5 gallons.  
Delicious, sparkling, and  
appetizing. Sold by all  
dealers. FREE a beautiful  
Picture Book and card  
sent to any one addressing  
C. E. HIRES & CO.,  
Philadelphia.

## How to Make Money

SURPRISING INDUCEMENTS OFFERED TO LADIES and Gentlemen to get up Clubs for our Celebrated

### TEAS, COFFEES & SPICES.

Special terms to consumers. Catalogue mailed free on receipt of name and address.

### Great American Importing Tea Co.

52 to 58 Market St., San Francisco.

Agents wanted everywhere.

### TRY WOODBURY'S

## IMPROVED RESIN WASH.

Send for Circular. ONLY 13¢ a Gallon.

Perfect Removal of Scale and Invigoration of Trees Without Hazard of Injuring Guaranteed.

Address WOODBURY OIL CO.,

123 California St., San Francisco.

## IT STANDS AT THE HEAD!

### "DOMESTIC"

DO NOT FAIL to SEE THE "DOMESTIC"

Before Buying a Sewing Machine.

It is the leader in practical progress. Send for price list

J. W. EVANS, 29 Post St., S. F.



MAKES THE BEST BREAD.

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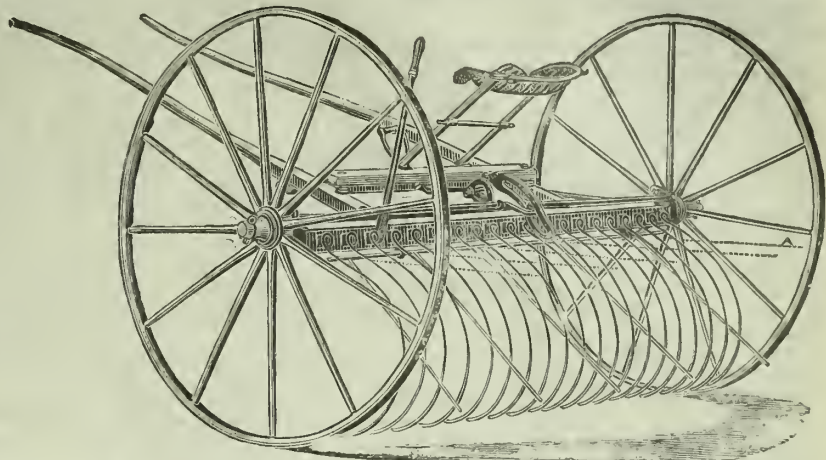
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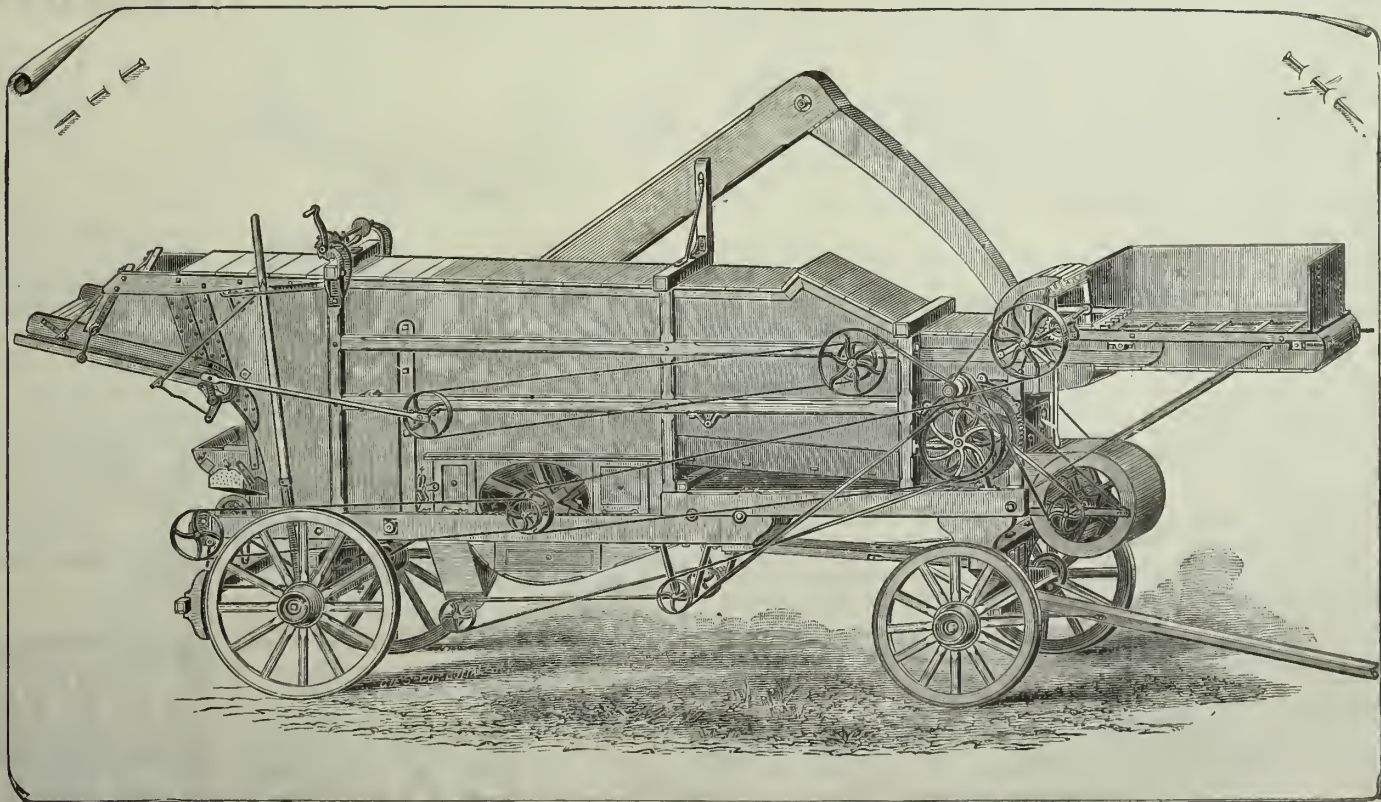
It has our patent tooth to PREVENT SCRATCHING.  
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It has NO JAR ON THE THILLS in dumping.  
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It will NOT SCRATCH UP FINE SEEDING in harvest field.  
It is WORTH TEN TIMES THE EXTRA COST.

It costs more than Rakes with ordinary teeth, but is WORTH TEN TIMES THE EXTRA COST.  
It will run over trash lying on the ground, and leave it there.  
It will rake barley, rye, oats, Hungarian and millet free from dirt.  
It is so easily managed that a boy who can drive a horse can use it as well as a strong man.  
It can be held down to MAKE VERY LARGE WINDROWS, or bunch them up.  
It has an OSCILLATING CLEANER THAT KEEPS THE HAY FROM ROLLING and working out at both ends into the wheels.  
It will rake "scatterings" perfectly, because the cleaner keeps the hay from rolling.  
It is very easy to keep up the teeth after going over a windrow.  
It packs the windrow, leaving it in good shape for rolling up or pitching.  
It dumps DAMP PART OF WINDROW ON TOP, and saves use of hay tedder.  
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## Yolo and Solano Notes.

EDITORS PRESS:—Since my last communication from Woodland, I have visited other portions of Yolo county, and noted some of my observations.

I found a very hopeful feeling prevalent among the fruit-growers of the Capay district. The valley proper is about 20 miles long, will average one mile in width, and is drained by Cache creek. Outside of the level valley lands are a succession of rolling hills, equally as well adapted to fruit trees and vines, but most of which are yet used for grazing purposes. I had no opportunity to explore the valley at full length, but through the courtesy of Mr. J. R. Parker, whose ranch of 3000 acres extends into the foothills, I was furnished a horse to ride to the summit of a high hill, whence I could view the entire valley. The scene from this commanding position was one of rare beauty. The squares of waving grain, the meadows of rich emerald hue, the cultivated fields, fine orchards and vineyards, interspersed occasionally with neat cottages and some pretentious farm buildings, the whole set off with the tree-studded hills of the Coast Range for a background, was certainly pleasing to behold. From the progress being made by orchardists in the Capay district, another decade will scarcely elapse before its fame will be widely extended. It is claimed to be next to the earliest fruit region of the State, and equal to any in quality of its productions.

## The Tancard Colony.

It is said, planted 35,000 fruit trees this year. The Clear Lake & Vacaville R. R. extends to the head of the valley, affording settlers a means of speedy ingress and egress, and freight transit.

About the largest vineyard I visited is called the Orleans, situated three miles south of the village of Capay. From Mr. C. A. A. Silherstein, the manager, I learned that the estate consists of 1600 acres, 580 of which are in vines, and 80 acres planted with fruit trees, principally prunes, some oranges, lemons and olives. Arpad, Harazthy & Co. are the proprietors. Mr. Silherstein is of an investigating turn of mind, has made numerous experiments in fruit and vine culture and wine manufacture, and kindly promised to acquaint your readers with some of his more important deductions as occasion offers.

From Mr. G. W. Chapman, midway from Madison to Winters, I derived much information regarding the earlier history of this portion of the county. Some of these facts were made use of in a brief article on "Sheep-raising in Yolo County," published in your last issue. A visit to the estate of S. Wolfskill,

## Solano County.

Will prove interesting to some people. The original grant consisted of 17,555 acres located in the year 1848. On the portion of the grant occupied by Mrs. M. A. Wolfskill may be seen four date trees which it is said bore the first fruit of the palm in California. I was shown some fine specimens of the Eastern black walnut tree, remarkable for size according to age, the one being measured in my presence had a diameter of four and a half feet—said to have been planted in 1860. The place also contains many large olive trees. The soil tributary to Putah Creek on which the above farm is located has probably no superior in the State for tree growing, being a very deep alluvial deposit.

En route to Vacaville I had occasion to stop at Mrs. G. M. Blake's farm in Pleasant Valley. The place contains 200 acres in bearing orchard and is efficiently managed by L. McKinstry, who will probably favor the PRESS during the year with the result of his horticultural investigations.

Pleasant Valley is situated northwest of Vacaville, is six or eight miles in length, and is justly praised for its picturesqueness as well as the healthfulness of its home-like homes. A few years more of the present activity in orchard extension will serve to make the whole valley a solid orchard.

## Far-Famed Vacaville

Still claims the ribbon as the earliest fruit region of the State. Late ripe cherries at the orchard of W. W. Smith, Esq., on the 19th of April. It was my pleasure to partake of the hospitality of this gentleman and his family on that date. Mr. Smith's orchard consists of 200 acres, mostly cherries. I also tested oranges grown on the place that I venture to say would be hard to excel anywhere.

Among the principal and most successful fruit-growers of Vacaville, the Buok family figures conspicuously, and it is claimed they have done a fair share toward extending its horticultural fame; but as authority on the propagation of the cherry, about all seem ready to yield the palm to the Bassfords. Whether it is their hobby or not, one thing is certain, success has attended their efforts in producing one of the thriftiest and most productive orchards in the State. I remained over night with J. M. Bassford, Sr., whom I found to be ripe with practical experience and a most genial companion. In reference to cherry culture, I noted Mr. Bassford's experience taught him that the soil of Vacaville lacked sufficient iron for the cherry, and to supply which copperas strewn at the roots of the tree proves an effectual remedy.

I paid a flying visit to Birds Landing about the middle of April and was royally entertained at the homes of Messrs. A. Mason and

J. H. Bullard, both of whom are staunch friends of the RURAL PRESS. Its legal representatives, I was assured, will always find their latch-strings hanging on the outside.

F. B. L.

**ALLIGATOR AND CROCODILE.**—It is said that only five crocodiles have ever been captured in Florida, although alligators are numerous. One difference between the two is that the crocodile works his upper jaw, while the alligator snaps a man in two with his lower jaw.—*Ex.* The alligator and crocodile are both of the same family, which includes three genera, the *Gavialis*, *Crocodilus* and *Alligator*. The type of the first is the "gavial" of India, the second the "crocodile" of Egypt and the third the "alligator" of America. The last named is peculiar to this continent. It was first discovered by the early Spanish voyagers, and thought to be identical with the crocodile of the old world; but scientists have since found distinctions to exist which indicate generic differences. It may become an interesting question among scientists, if the crocodile of Egypt has been found in Florida—how did it get there? Is it a variation in nature, or has that particular specimen of the Sanrian family been recently transported from its native waters to those of Florida?

Since it is now a well-established fact that catarrh is a blood disease, medical men are quite generally prescribing Ayer's Sarsaparilla for that most loathsome complaint, and the result, in nearly every instance, proves the wisdom of their advice.

**SHARPENING EDGE TOOLS.**—A German scientific journal says: "It has long been known that the simplest method of sharpening a razor is to put it for half an hour in water to which has been added one-twentieth of its weight of muriatic or sulphuric acid, then lightly wipe it off, and after a few hours set it on a hone. The acid here supplies the place of a whetstone by corroding the whole surface evenly, so that nothing further than a smooth polish is necessary. The process never injures good blades, while badly hardened ones are generally improved by it, although the cause of improvement remains unexplained. At length this process has been applied to many other cutting implements. The workman, at the beginning of his noon spell, or when he leaves it in the evening, moistens the blades of his tools with water acidulated as above, the cost of which is almost nothing. This saves the consumption of time and labor in whetting."

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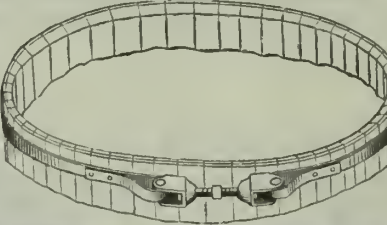
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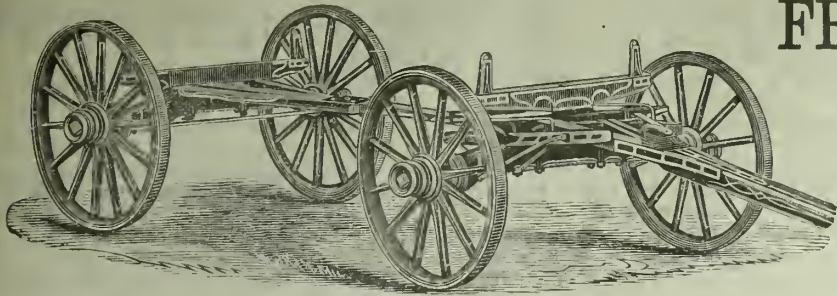
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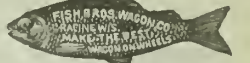


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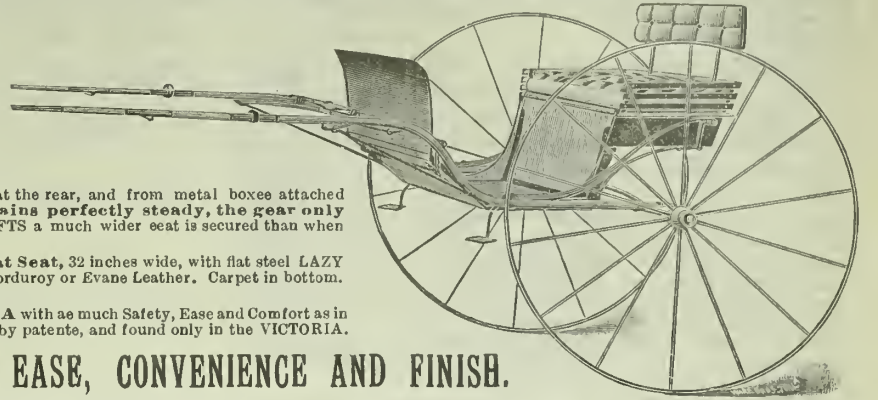
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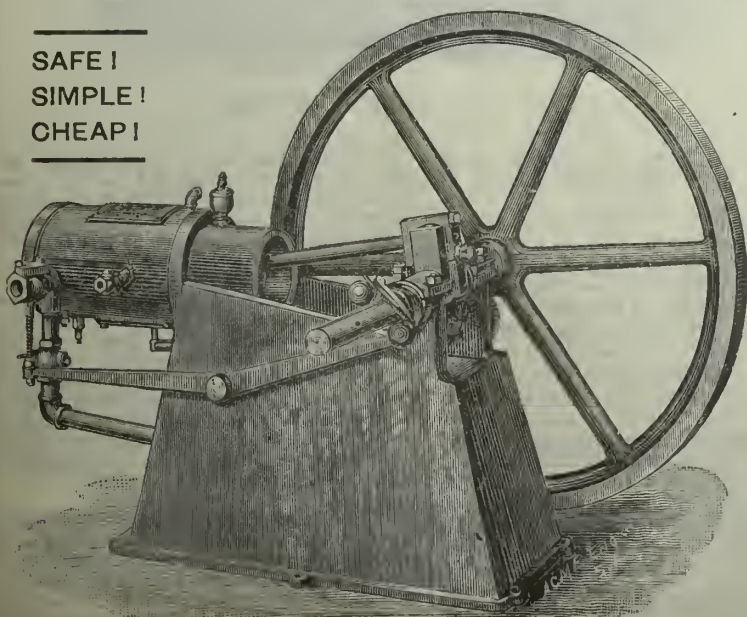
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**SAFE!  
SIMPLE!  
CHEAP!**



## THE STABLE.

## An Early Mule Speculation.

J. J. Warner of Los Angeles county recently read an interesting paper before the California Historical Society on "Early Trapping Parties," in the course of which he gives the following account of an early overland trading expedition:

In the fall of 1830 Mr. Young, Mr. Honck and Wm. Wolfskill fitted out a trapping party, which left Taos, N. M., under the command of Mr. Wolfskill, to trap the valley of California. This party, consisting of about 30 men, proceeded westerly, crossing Green river above its junction with Grand river, and reached the Sierra Nevada, and while struggling to cross it the weather became so inclement and the obstacles in his way so great that his party became demoralized and insubordinate, and he was forced to abandon his proposed line of travel and proceed southerly along the eastern slope of the Sierra Nevada and the adjacent plains east of it and entered the settlements of California in February, 1831, through the Cajon Pass of San Bernardino. No trapping was done by this party west of the Colorado, unless it was a little on Virgin river, and it disbanded upon reaching Los Angeles. It was composed of discordant material, some being Americans, some Canadians and Missouri Frenchmen and a considerable number of New Mexicans of Spanish blood. Mr. Wolfskill settled in Los Angeles and became a prominent and wealthy citizen of that place. He married in California and raised a family of two sons and three daughters. A number of the New Mexicans who were of Wolfskill's party returned to Santa Fe, N. M., in August, 1831, taking with them a number of mules which they had acquired in California. They had obtained some and probably most of these mules in exchange for their blankets, made in New Mexico, and which they had brought with them to serve as bedding and overcoats and for trading with Indians. The large size and beauty of these California mules and the low price at which they were obtained excited the admiration not only of the New Mexican, but the foreigners in Santa Fe. Measures were soon adopted to take advantage of this newly discovered plan for obtaining mules. A company was soon formed composed of Americans, of which Mr. Waldo, subsequently American Governor of that Territory, was a member, which fitted out a party of eleven men, with capital to the amount 15,000 silver dollars, to proceed to California and invest the capital in mules.

This party, led by Mr. Jackson, one of the three partners comprising the company, left Santa Fe September 6, 1831, and reached the settlements of California the following November.

Edwin Young, the other member of the before-mentioned company, at the head of a trapping party of about 35 men, left Taos, N. M., about the same time that Jackson left Santa Fe, for the purpose of trapping the Gila river and its branches to its mouth and the Lower Colorado, and then proceed to the settlements of California, there to join Jackson. He reached Los Angeles about the end of March, 1832, when the parties were united. The intention of the company at the time of fitting out the two expeditions from Taos was that the two parties would be united into one here in California, and drive the mules proposed to be brought to Louisiana by the way of Texas. Jackson did not succeed in purchasing as many mules as had been anticipated, and Young's trapping expedition had proven a failure in consequence of a defect in the construction of the traps used. From these causes, the Louisiana market for the mules was abandoned, and in the month of May, Jackson left California, with the mules which had been purchased, for Santa Fe, by the same route which he had traveled in coming to California the preceding fall.

The New Mexican who came to California in Mr. Wolfskill's party, and returned back in the summer of 1831, reported the eagerness with which the Californians bought the highly colored blankets, of New Mexican manufacture, in such glowing terms that the inhabitants of that Territory set themselves to transforming their wool products more extensively into blankets, to be sent overland to California for sale and for the purchase of mules. This was the origin and commencement of the New Mexican blanket trade with California, which was profitably carried on for some time by yearly caravans between the two Territories. No intercourse, commercial or otherwise, had up to this time—1832—ever existed between New Mexico and California.

**MONKEYS IN FLORIDA.**—A colony of 200 or 300 monkeys is reported to exist in the everglades of Florida. They are supposed to owe their origin to the wreck of a vessel upon the coast having on board monkeys, which escaped into the forest.

FOR INFORMATION, our readers are referred to H. A. Denning, No. 124 Post St., S. F., a leading and well-established house, for paper patterns of plates illustrated in our present issue.

## Fashion Notes.

## Ladies' Costume.

FIGURE 1.—This illustrates a ladies' costume. As here made up the costume will be exquisite for afternoon teas, garden or lawn parties, receptions and similar occasions.

The material is light India silk figured with detached floral sprays. The skirt is in the regulation four-gored style and is trimmed at the foot with several narrow plaitings of silk; it is entirely concealed by a drapery or second skirt, that is softly but simply wrinkled across the front by small clustered plaits at the belt, and arranged to lie smoothly on the gores at the bottom and hang in free natural folds at the back from

plain and fancy crepe chiffon, net and all kinds of gauzes and tissues will make up exquisitely by the mode over silk, Bengaline, Surah, etc. All varieties of cottons and softly falling woollens are appropriate for costumes of this kind, and combinations are particularly effective.

The picturesque hat is of fine straw and is stylishly trimmed with ribbon and flowers.

## Misses' Dress.

FIG. 2.—This illustrates a misses' dress. A very dainty combination is here effected with figured challis and plain India silk. The dress is in the picturesque Marguerite style. The skirt is deeply hemmed at the bottom and gathered at the top to a belt from which it falls in graceful, natural folds.

dered at the top with passementerie, and the frills are caught up prettily at the inside of the arm.

For simplicity and dressiness the mode is admirable, and it will be a popular style for afternoon and dancing dresses. Crepe, flouncing, tissues, India and China silks and all sorts of sheer textures will be made up for such uses, with passementerie, ribbon, fancy braid, lace, etc., for garniture. More serviceable dresses will be developed in challis, nun's veiling, cashmere, sateen, gingham, serge and other seasonable fabrics. Combinations of colors or textures in the body are exceedingly attractive.

Crepe and ribbon stylishly trim the large straw hat.



Fig. 2—MISSSES' DRESS.

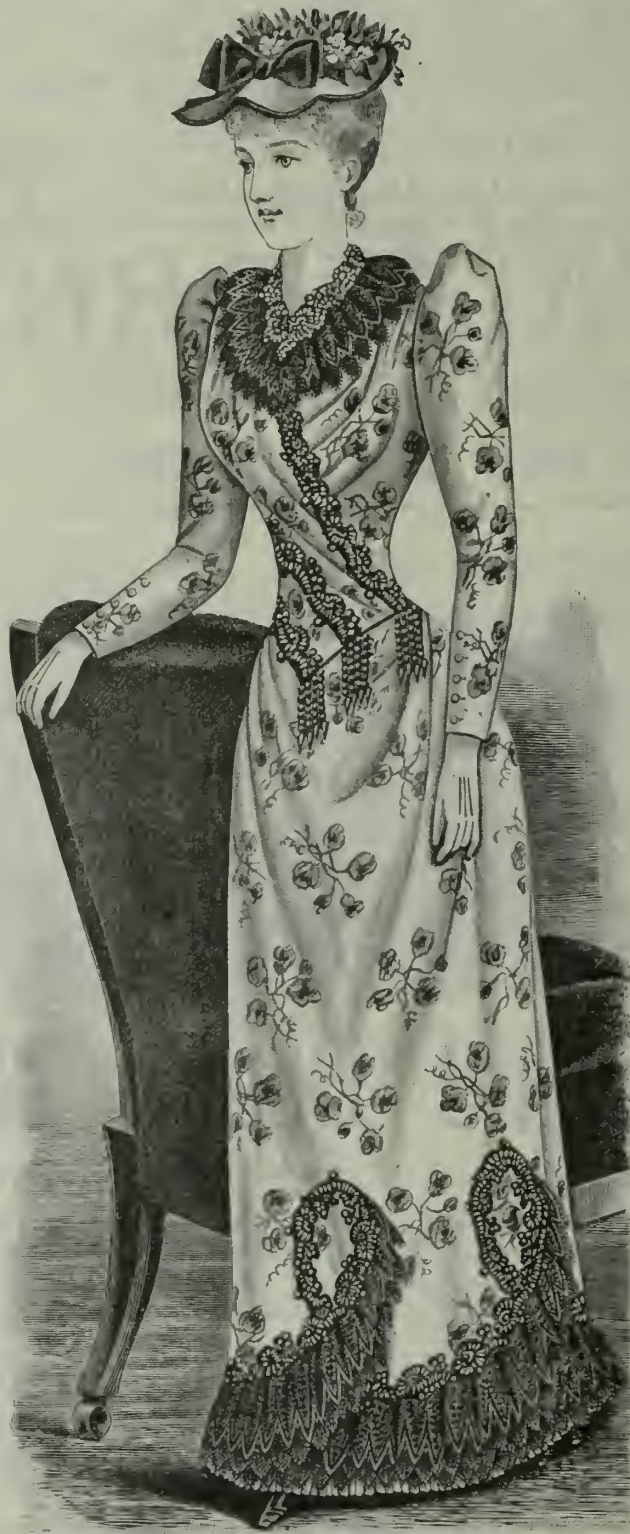


Fig. 1—LADIES' COSTUME.

gathers at the belt. A little above the lower edge of the drapery a large, simple scroll pattern is wrought with band passementerie, and the lower edge of the passementerie is followed nearly to the top of each scroll with sections of lace flouncing, thus producing a beautiful festoon garniture.

The bodice is a close fitting, pointed basque, with surplice fronts that cross in the regular way over the bust, and a full back that is deeply shirred at the neck and below the waist line. The right surplice front is trimmed diagonally with rows of band passementerie that are finished with a pretty fringe at the lower edge of the front; and the neck is cut in V shape and decorated with a turn-over frill of lace edging. The sleeves reach to the wrists and are full and high on the shoulders and close fitting below the elbow; and each sleeve is simply trimmed with a row of buttons arranged along the inside seam.

Mousseline de soie, embroidered, figured,

It is trimmed with two deep ruffles of the material, the upper ruffle being finished for a self-heading.

The body has a full front and full back that are gathered at the neck and plaited to a point at the center, the soft folds of the gathers and the flaring folds of the plaits being prettily displayed by the peasant bodice, which flares widely at the front and back. The flaring edges of the bodice are connected by straps of passementerie, and similar passementerie borders the neck and front edges. The full portions are arranged upon smooth linings, and the entire body is rendered close fitting by single bust darts and under-arm gores. A frill of lace finishes the neck in Directoire fashion, the standing collar of the pattern being omitted. Similar frills fall from the wrists of the full sleeves, which are made over smooth linings that extend with the effect of deep cuffs below the sleeves, the exposed portions of the linings are covered with cuff facings of silk bor-

**A WHOLE REDWOOD.**—J. H. Hegler proposes to send to Chicago to be set up in some of the parks around the World's Fair buildings the whole of a giant redwood tree, over 300 feet in height and upward of 25 feet in diameter at the base. He says he can put the tree as a whole in Chicago, providing the cost of shipping it be defrayed by the State, and have it set up there. Several persons who are interesting themselves in the California exhibit at the World's Fair have been seen by Mr. Hegler, and all agree that if it is possible to ship a whole tree to Chicago and put it together again when it reaches there so that it can stand the strain incident to the high winds, which sometimes prevail there, it would undoubtedly be one of the greatest of the exhibits.

**TO CUT GLASS VESSELS** neatly, fill the vessel the exact height you wish it to be cut with oil of any kind; then dip, very carefully, a red-hot iron in the oil. This will heat it all along the surface, and when the upper portion cracks all round, you can lift it clear off by the surface of the oil.



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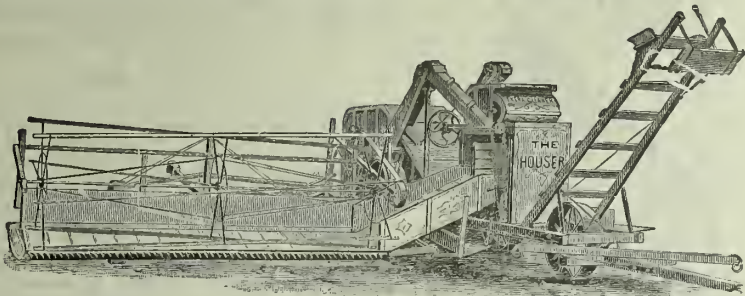
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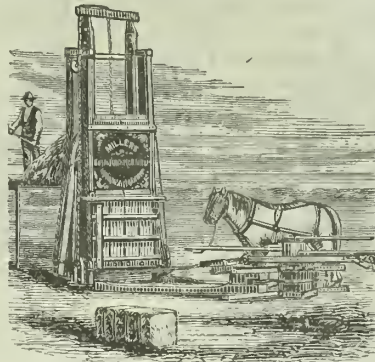
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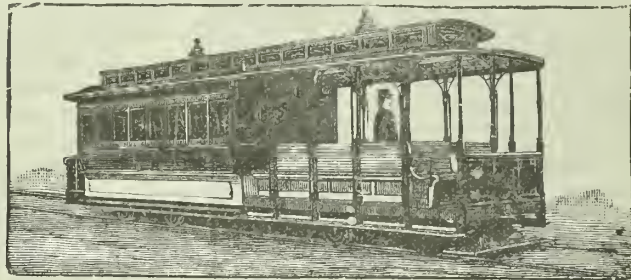
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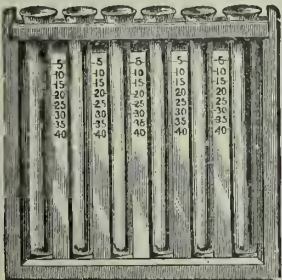
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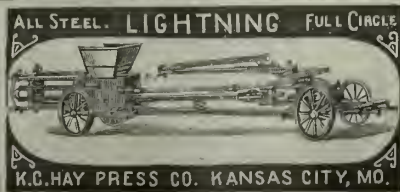
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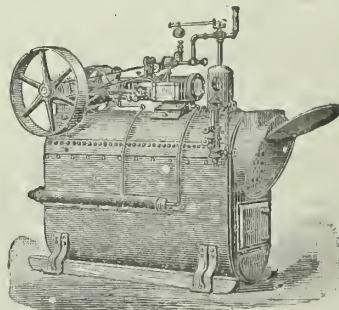
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## FARMERS' INSTITUTES.

### The Fresno Farmers' Institute.

A meeting of the executive committee of the Fresno County Farmers' Institute was held on Saturday last. All the members of the committee were present, President O. P. Laird in the chair.

The date of holding the next quarterly institute was fixed for Thursday, July 8th, and the place of meeting is Malaga, conditionally, a committee having been appointed to confer with the people of that place, and, if favorable arrangements can be effected it will be so decided. The intention is to hold a day and evening session, a program of exercises having been arranged that will certainly prove attractive. Some speakers from abroad will be in attendance, as well as the best of our home talent, and practical subjects of interest to all will be ably discussed.

In this connection it may be well for me to add a few words of explanation regarding this organization. It seems a matter of regret that so few heard Professor Wickson's plain address on that subject at the Institute held here under the new act of the Legislature providing for the holding of such meetings.

To sum it up briefly: What the teachers' institutes have been to the educational cause, the farmers' institutes are intended to be to the agricultural cause. It might be said, to the industrial cause, since all classes of industry are intended to be benefited. It goes without saying that politics or religion have no more part in this organization than they have in the teachers' institutes. The policy of helping along county, State and national prosperity by combined and united efforts, and the religion of doing good that good may be done that underlies all the efforts of mankind toward improvement of conditions, are the motive powers of this movement.

The first meeting having been held in April, the next quarterly meeting falls in July. Malaga is selected as the place of meeting because of the fact that the County Alliance held there the 7th, will call a number of the farmers there that we hope will stay over for our meeting the following day, as they did here in April. The question as to this being "side issue" of the Farmers' Alliance can be answered once for all by this statement that I am authorized to make: "That, had there been no such organization in California as the Farmers' Alliance, the Institute, under the auspices of the Board of Regents of the State University, would have been held in Fresno in April, and would have resulted, as it did, in a permanent organization, having a brief code of laws that can be signed as a form of union to keep us in working order, and to make every one in Fresno county feel that it is 'our Institute,' and that one is equally responsible with another toward making it what it should be. Its prime object being the welfare of the people, thus far it is in unison with the various lodges, the Grange and the Farmers' Alliance, but that it is no more a part of them than it is of the several religious denominations or great political parties is certainly true."

Open to all; free to all; for the good of all, is the motto of the Fresno county Farmers' Institute.—Mrs. M. B. Stuart, Secretary in Central Californian.

FRESNO FARMERS' INSTITUTE.—C. I. R. P. McGilroy, of Campbell, has been invited to address the Fresno Farmers' Institute, to be held at Malaga, July 8th. The subject assigned to the Colonel is "Co-operation among Farmers," and no doubt he will treat the subject exhaustively, having seen the beneficial results of co-operation among the dairy farmers in the Eastern States, where he was engaged in Institute work for many years.

### Turkeys.

EDITORS PRESS:—Knowing that through your columns most every subject pertaining to the soil is discussed and light thrown thereon, I for the first time seek information. I am interested in poultry, and turkeys especially. Will some one of the many readers of your paper answer through its columns the following questions:

What breed is best and most profitable to raise? How many eggs do they lay before wanting to set, and will they lay again if weaned from setting or by being deprived of their brood? How are young turkeys affected by changeable weather? Do they easily become diseased? What is a sure cure or preventive for snob? At what age do turkeys lay and set best? What arrangements are best for their laying and setting departments? What kind of food is best for young turkeys? Can grown turkeys be fattened by penning and feeding? Can they be hatched and raised successfully by means of incubators? Any other points relating to this subject will be thankfully received. SUBSCRIBER.

Orland.

[Here is a splendid text for some turkey-growing readers to found letters upon. We would like to hear more about turkeys.—Eds. PRESS.]

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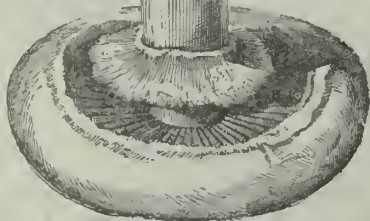
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A Practical Treatise on the Raisin Grapes, Their History, Culture and Curing.

By GUSTAV EISEN.

This is a book of marked character. It is an attractive volume of more than 200 pages, printed on heavy paper, with wide margins, and is well illustrated and neatly bound. It has won the thoughtful attention of specialists, and called forth the hearty commendation of the newspaper press. Prof. E. W. Hilgard, of the University of California, says: "It is certainly a most timely work, and one that your training and experience have fitted you peculiarly to undertake. I congratulate you and the raisin industry upon the work, in which I recognize from the outset the Germanic thoroughness and a close adherence to facts that do not always characterize such publications." Prof. E. J. Wickson, of the same institution, writes: "I discern in the work a breadth of information and a faithfulness in details of practice which will constitute it the standard treatise on the raisin." Col. Forsyth says: "With your book in hand the inexperienced farmer or clerk can safely engage in raising-grapes with expectation of success from the very start." Says the Fresno Republican: "No work on a technical subject has ever been published that more thoroughly, completely and honestly discussed its specialty than does Dr. Gustav Eisen's work on 'The Raisin Industry.' This valuable book, just out, is published by the H. S. Crocker Company, San Francisco. It is just what it pretends to be, a practical treatise on the raisin grapes, their history, culture and curing." The Rural Press says: "Dr. Eisen's work is broad and scholarly, and yet compact and definite in the development of the subject. It should find a place on the book-shelves of all California horticulturists, and will no doubt go to the uttermost parts of the world." The California makes this reference to the book: "It is a clear, vigorous, fresh and logical treatise; learned, exhaustive, profound and yet extremely practical and useful." The Marquette Appeal says: "A very valuable contribution to the literature of horticulture is the volume on 'The Raisin Industry,' from the pen of Prof. Gustav Eisen. Among California raisin-growers Prof. Eisen has long been recognized as an authority upon everything relative to their industry." The San Francisco Chronicle says: "In this work the author has performed a much needed task, going into the details of every branch of what has become one of the foremost industries of California. No man better qualified for the enterprise could have been found." The State Horticultural Society, by its committee, reports as follows: "We find Dr. Eisen's work a most valuable treatise upon raisin production in all its branches, historically complete, broad and comprehensive in its scope, accurate in its details and a valuable guide in the practice of the growth of the raisin-grape vine and the preparation of its products for the market, and as such we earnestly commend it to the public." Price Three Dollars, postpaid. For sale by DEWEY & CO., 220 Market Street, San Francisco.

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A New Book on Propagation of Plants.—

"THE NURSERY BOOK," by Prof. L. H. Bailey, Editor of The American Gardener, has been prepared with the utmost pains. The book is absolutely devoid of theory and speculation. It has nothing to do with plant physiology, nor with any abstruse reasons of plant growth. It simply tells plainly and briefly what every one who sows a seed, makes a cutting, sets a graft, or crosses a flower wants to know. It is entirely new and original in method and matter. The cuts number almost 100, and are made especially for it, direct from nature. The book treats of all kinds of cultivated plants, fruits, vegetables, greenhouse plants, hardy herbs, ornamental trees and shrubs, and forest trees. A "nursery list" is the great feature of the book. It is an alphabetical list of over 2000 plants, with a short statement with each, telling which of the operations described in the first five chapters are employed in propagating them. About 300 pages, 16mo. Price, in library style, cloth, wide margins, \$1; pocket style, paper, narrow margins, 50 cts.

The New Potato Culture, by Elbert S. Carman.

Editor of the Rural New Yorker. For the past 15 years the author has given a part of his time to potato experimentation, in the hopes that he might throw some additional light upon the various questions involved in the central problem, "How to increase the yield without proportionately increasing the cost of production." The object of Mr. Carman's book is to show all who raise potatoes, whether for home use solely or for market as well, that the yield may be increased three-fold without a corresponding increase in the cost; to show that the little garden patch, of a fourth of an acre perhaps, may just as well yield ten bushels as three bushels; to induce farmers and gardeners to experiment with fertilizers, not only as to kind, that is to say, the constituents and their most effective proportions, but as to the most economical quantity to use. Price, cloth, 75 cts.; paper, 40 cts.

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220 Market Street, San Francisco, Cal.

## ORANGE CULTURE IN CALIFORNIA.

Now that the interest in the culture of the orange is extending so as to embrace nearly all parts of the State, a book giving the results of experience in parts of the State where the growth of the fruit has been longest pursued will be found of wide usefulness.

"Orange Culture in California" was written by Thos. A. Garcey of Los Angeles, after many years of practical experience and observation in the growth of the fruit. It is a well-printed hand-book of 227 pages, and treats of nursery practice, planting of orange orchards, cultivation and irrigation, pruning, estimates of cost of plantations, best varieties, etc.

The book is sent post-paid at the reduced price of 75 cents per copy, in cloth binding. Address DEWEY & CO., Publishers "Pacific Rural Press," 220 Market St., S. F.



## Death of California's Pioneer Wool Merchant.

A. T. Farish of this city died at San Diego on Sunday, May 10th, at the advanced age of 81 years. To a large number of the pioneer readers of the Press Mr. Farish was either known personally or by reputation, for his business connections brought him in contact with a large class of farmers. He was a person of remarkable vitality, energy and perseverance, all of which carried him successfully through the 65 years of active business that marked his life. Born in a rural district in North Carolina, his early life was spent among farmers, with whom he ever retained the warmest sympathy when wronged by monopolists or through the greed of corporations. Before 25 years of age he moved west into the (at that time) wilds of Tennessee, where he engaged in merchandising, and later on in cotton buying for New England, and also English manufacturers, which business he followed to the time of leaving for the Pacific Coast in 1848. Crossing the plains with the tide of immigration setting this way, he arrived in California in 1849. Mining not being congenial to his taste, he established himself in the mercantile business at Marysville in 1850. Like all pioneer merchants, he had several fortunes swept from him by floods and by fire while at Marysville. In 1860 he established in San Francisco the first wool house on the coast. In this business his training as a cotton buyer stood him well in hand, and his judgment on wool texture and fiber was sought by many. He built up a very large business, but by reason of a lawsuit over some lands at the Potrero, which he lost, he became embarrassed financially, but friends coming to his relief, he again prospered, retiring from business fairly well off. His ever restlessness would not allow him to remain in idleness, for each spring and fall he went into the country to buy wool; even at the time of his death he had arranged to buy wool in San Diego county.

When in the wool business he aided no little in helping breeders of fine wool sheep in importing the best blooded stock, which contributed largely to creating California's reputation for fine wools.

When the first cotton-mill in this State was erected at Oakland, about the year 1865, by a party from Oregon, he took quite an interest in the enterprise, and through him their supplies of raw cotton were first obtained. They tried to induce the planting of cotton by farmers in this State, but the heavy expense leaving no profit, it proved futile.

In his intercourse he was rather reserved, but at all times acted the gentleman. In his business relations he enjoyed the confidence of all with whom he had dealings, and was considered the personification of all that goes to constitute a thoroughly honorable and reliable merchant.

He leaves a family of seven children (his wife died about 19 years ago), five sons and two daughters. His sons, grown to manhood on this coast, are well known. Three are mining engineers, one Chief Deputy United States Marshal, and the other on the editorial staff of the PACIFIC RURAL PRESS. The two daughters are married to two brothers, G. A. and C. H. Reynolds, formerly bankers in Marysville, but at present engaged in the real estate business in this city. A. T. Farish was a Mason. In Tennessee he was largely instrumental in establishing a Masonic College in the town (Macon), where he was in business. Outside of the Masons he did not belong to any society except the Pioneers of this city. The body was brought to this city for interment in the Masonic cemetery.

**WORMS ON THE PRUNE TREES.**—Announcements are made of the prevalence of worms on the prune trees, which are said to be making sad havoc. The worms vary from one to one and a half inches in length. They are not sluggish in movement like the average caterpillar. Mild Paris green sprays they do not seem to mind, and the only sure remedy practiced thus far is individual extinction. When the trees are shaken hard, the worms fall and then they are crushed. The news of the depredations has had the effect of making all prune growers resolve to sign no contracts for the disposal of their crops until they see the full extent of the damage. It is reported that as high as three cents a pound has been offered some growers and refused. The worm has troubled apricot trees somewhat, but not to the extent it has prunes.

**THE COUNTY OF GLENN.**—The final act in the establishment of Glenn county was accomplished on Monday. The Board of Commissioners met, canvassed the returns and declared the result to be 924 in favor of and 651 against a separate county government. Officers were elected, sworn in and qualified. A joyous celebration meeting was held Monday evening at Willows.

## English Advices Favorable to Hop Growers.

In a review on the hop situation, a late English exchange says that hops have always borne a character for extreme fluctuations, and the big jump from about £4, which was the average price last year, to £12 at the present time is by no means an unheard-of occurrence. During the past half-century or so—it is a long time to look back upon, but it is all the better in that respect, because giving more ample corroboration—there have been some extremely wide fluctuations. For example, in 1837 the price of hops was about £7 7s. per cwt., while two years later it fell to £2 10s. The following year, namely, 1840, hops were so scarce that the enormous price of £20 and even £25 per cwt. was the market value. Coming to more recent years, the following extreme fluctuations have been recorded: In 1852 the price was about £15 per cwt., in 1854 about £20, in 1859 £2 10s., and in 1860 £20 per cwt. We are not forgetting that during these years a duty was imposed on hops. But in 1881 the price of hops was down to £4, and the following year (with no duty) the price was again as high as £20 to £30 per cwt. It will thus be seen that there is no certainty as regards the prices of hops, but that it is entirely a question of crops. Short crops, through blight or other causes, invariably cause dear prices. The hop crop last year was just as poor on the Continent as it was in England. What, however, renders the question of supply and demand abroad more pressing now than it was formerly is the enormous increase in the consumption of ale, and the different methods upon which the brewery trade is now carried on compared with those previously in vogue.

The following figures, taken from the English Board of Agriculture and the London Board of Trade returns, show the English crops and imports of hops for the past six years:

Crop 1885—550,000 cwt.; imports, 182,000 cwt.  
Crop 1886—600,000 cwt.; imports, 33,000 cwt.  
Crop 1887—457,000 cwt.; imports, 100,000 cwt.  
—1,922,000 cwt.  
Crop 1888—281,000 cwt.; imports, 166,000 cwt.  
Crop 1889—497,000 cwt.; imports, 141,000 cwt.  
Crop 1890—281,000 cwt.; imports to date, 115,000 cwt.  
—1,481,000 cwt.

The imports are reckoned from the 1st of September until the following 31st of August. It will be observed that the total crop and imports of the last three years fall short of a total for the three preceding years by 450,000 cwt.; the shortage in 1888 made a great inroad into the surplus stock of 1885 and 1886, and the few that now remain of those years will have to go into consumption to keep English breweries going until the next crop can be secured. The consumption of hops in Great Britain is 700,000 cwt., the number of barrels of beer on which duty was paid in the last brewing year was 32,000,000, which, if calculated at the low average of 2½ pounds of hops per barrel, would give 714,000 cwt. Now, as it is quite possible that substitutes are being used equal to displacement of 60,000 or 70,000 cwt. of hops, this would bring the actual consumption by the English brewer down to 650,000 cwt., to which has to be added exports, 20,000 cwt., and 30,000 cwt. used by yeast-makers and other purposes, which brings the total up to 700,000 cwt.

## Flax and Ramie.

**EDITORS PRESS:**—The State Board of Horticulture has ordered from Wm. Lichtenburg 666 boxes of ramie plants, 100 plants in each box. Some 408 letters have been received applying for the samples. If any farmer would like the plants for trial he can still apply but all will have to irrigate to make good growth. The Department of Agriculture at Washington has sent 100 pounds of samples of flax seed to the State Board of Agriculture at Sacramento for distribution, in 5lb lots, to farmers who will plant the seed and report results of the planting to the Cal. Cotton Mills. Wm. Rutherford, the superintendent, will work the sample stalks furnished him free of charge and have the fiber for a special fiber exhibit that is being worked up for the next State Fair.

W. H. MURRAY,  
State Supt. Ramie Culture.

321 Market St., S. F.

## Our Three Editions.

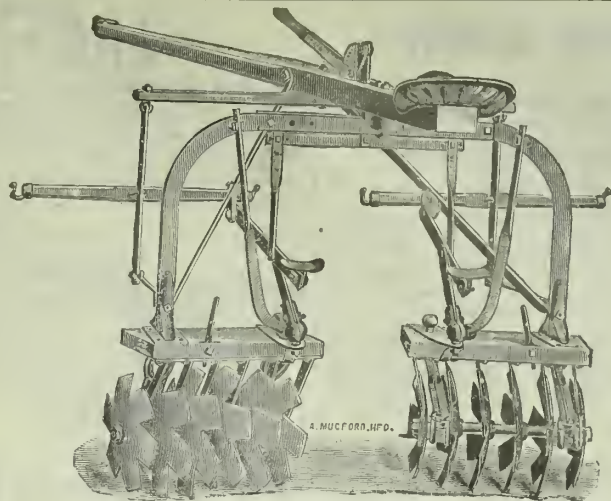
First, we print our REGULAR EDITION for general circulation, containing about one page of Grange matter, supposed to be of most interest and importance to all subscribers. It also contains a like selection of Farmers' Alliance reading.

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Subscribers can, at any time, change their subscription from one edition to another, without extra cost, by writing to the office. Be sure to give plainly your name, P. O., the edition now taken and the one preferred.



Clark's Cutaway Corn Cultivator.

The Higginum M'tg. Corporation of Higginum, Conn., have added to their line of celebrated Cutaway goods the Clark's Cutaway Corn or Cotton Cultivator as shown in our illustration.

The CCCC Cultivator has two gangs or five disks; three 16 inch and two 14-inch in each gang. The small disks are generally used on the ends to avoid cutting plant roots, but may be changed if desired.

These disks are attached to a gang plank; each disk has a cleaver.

These gangs are used either end out. The two branch beams are made adjustable so that the gangs may be placed in either adjustment, from two to sixteen inches apart.

These beams are attached to the outer ends of the gangs by a ball and socket joint. The inner ends of these gangs are connected to the branch beams by an adjustable stud so that the

inner ends of the gangs may be higher or lower as desired, and are also connected with the main braces by arm and foot levers, in such a manner that the relative angle of the two gangs can be changed and thus quickly send the machine to the right or left.

The hand lever on top of the pole, by its connecting arms, also affects the angle of the gangs so that they can instantly be made to dig hard or easy.

With these adjustments the gangs can be made to dig deep or shallow near the plants, or to carry the dirt to or from the plants in large or small quantities as desired. It is intended to straddle the row, and when so driven, the space between each row is cut twice over, thereby killing the weeds and thoroughly softening the soil. Its draught is very light. All the working parts are made of steel.

It will cultivate either flat or in ridges. It covers potatoes in drills nicely. It is not intended for general harrowing, but can be thus used. It is much used in vineyards.

## List of U. S. Patents for Pacific Coast Inventors.

Reported by Dewey & Co., Pioneer Patent Solicitors for Pacific Coast.

FOR WEEK ENDING MAY 5, 1891.

- 451,550.—SHEET METAL ROOFING—J. C. Bayer, Portland, Or.  
451,893.—LADDER—G. T. Campbell, S. F.  
451,648.—TRACTION ENGINE—N. L. Darling, Benicia, Cal.  
451,857.—CABLE GRIP—J. J. Graff, S. F.  
451,668.—NIPPERS—D. A. Hamilton, Heppner, Or.  
451,712.—WATCHMAKERS JEWEL SETTING CUTTER—A. Hartung, Nevada City, Cal.  
451,594.—BORING MACHINE. A. M. Jewell, S. F.  
451,595.—BORING MACHINE. A. M. Jewell, S. F.  
451,765.—VALVE GEAR FOR ORE STAMPS—C. Kendrick, Jr., Nevada City, Cal.  
451,608.—HORSE TAIL HOLDER—J. W. Lindsay, Fresno, Cal.  
451,839.—ANIMAL TRAP—John Picard, St. Paul, Or.  
451,530.—WASHING MACHINE—Z. W. Shields, Harrington, Wash.  
451,531.—NEUTRALIZING SULPHO-CHLORINATED OILS—A. Sommer, Berkeley, Cal.  
451,626.—STRATIFIED BRICK—L. A. Steiger, San Jose, Cal.  
451,783.—SHINGLE—R. P. Taylor, Gold Hill, Nev.  
451,655.—VETERINARY INHALER—H. T. Welch, San Jose, Cal.  
451,544.—RAILWAY RAIL COUPLING—J. T. Wicker, Sprague, Wash.  
451,586.—INSULATED ELECTRIC CONDUCTOR—J. B. Williams, Oakland, Cal.  
451,587.—INSULATED ELECTRIC CONDUCTOR—J. B. Williams, Oakland, Cal.

The following brief list by telegraph, for May 12, will appear more complete on receipt of mail devices:

California—San Francisco: Peter Bargion, street-railway rail and pavement; Nora M. Barrett, gas engine attachment; Charles E. Naylor, safety-grip brake for cable cars; Franz Smith, door manipulator. Oakland—James L. Crittenden, drain pipe for buildings; Frank A. Huntington, power street-paving machine; Jas. B. Williams, treating conductors. Nevada City—Amelia Fogeh, fruit-picker. Alameda—Adolph Lajeunesse, weather strip. Oregon—Portland: Craig H. Murray, bedstead, tablet. Washington—Seattle: Emma C. Hudson, household letter-box; Wm. R. Phillips, hydraulic air-compressor. Spokane Falls—John McKinnin, clothes-drier. Montessano—Michael Reilly, razor strop and driving calk.

NOTE.—Copies of U. S. and Foreign patents furnished by Dewey & Co., in the shortest time possible (by mail by telegraphic order). American and Foreign patents obtained, and general patent business for Pacific Coast inventors transacted with perfect security, at reasonable rates, and in the shortest possible time.

## The State Floral Show.

The spring exhibition of the State Floral Society, held in this city May 6th to 9th, was a gratifying success from all points of view. The exhibits were fine and varied. The hall of the Academy of Sciences, which was kindly granted for the exhibition, proved admirably adapted for the purpose, and was handsomely decorated. The attendance was excellent, and the patronage generous, so that the Society's treasury will be considerably inflated by the proceeds. The following awards were made:

Class A, cut flowers—Subdivision I, open to amateurs who do not employ skilled labor. Largest and best collection of roses—silver medal, H. T. Greenough, Berkeley; bronze

medal, Warren Cheney, Berkeley. Best 12 cut-bloom roses—certificate, Mrs. Fish, San Francisco, best general collection of cut flowers in society's glasses, each variety in a separate glass—silver cup, Mrs. W. H. Smyth, Berkeley; certificate, Mrs. R. Townsend, East Oakland.

Pansies—Bronze medal, Mrs. E. T. Crane, San Lorenzo; certificate, Mrs. G. C. Ross, San Francisco. Largest and best collection of cut bloom pelargoniums—\$3 prize, Mrs. W. H. Smyth, Berkeley. Twelve best cut-bloom pelargoniums, in 12 distinct varieties—\$2, Mrs. E. T. Crane, San Lorenzo. Largest and best collection of sweet peas—certificate, Mrs. G. C. Ross, San Francisco.

Subdivision II, open to amateurs who employ skilled labor: Best general collection of cut flowers—Silver cup, Timothy Hopkins, Menlo Park. Largest and best collection of cut-bloom roses, one specimen of each variety—Silver medal, California Nursery Company, Niles. Largest and best collection of pelargoniums—\$5, John Rock, Niles. Largest and best collection of clematis—Certificate, California Nursery Co., Niles.

Class B, plants: Best single fern—Certificate, Mrs. Helen Cross, San Francisco. Largest and best collection of flowering plants in bloom—Silver medal, Timothy Hopkins, Menlo Park. Largest and best collection of rare begonias—Certificate, T. G. Hodgkins, San Francisco.

Class C, open to all competitors: Largest and best collection of California wild flowers—\$10, Mrs. Vestey, San Francisco. Most meritorious general exhibit of foliage, flowering and decorative plants—First prize, \$25, Mrs. C. Hohwiesner, San Francisco; second prize, \$15, Mrs. L. O. Hodgkins, San Francisco.

Special premiums: For best twelve cut blooms of roses in 12 distinct varieties—First prize, 12 choice rosebushes, Mrs. W. H. Smyth, Berkeley; second prize, six choice rosebushes, Warren Cheney, Berkeley. For Japanese exhibit, collection of floral novelties—Silver medal, H. Suzuki, San Francisco. For Lady Adeline and ten other glaxias—Special certificate of merit, C. Pagh, Agricultural Department, University of California.

The judges were Emil Kellner, Charles B. Brigham, Emil Servan, John Pouyal and J. Holbrow.

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For San Francisco, Oakland or Alameda property, 40 acres of good land one mile from St. Helena, Napa Co., on road to Rural Health Retreat; 16 acres in vines of best varieties, in full bearing, together with about 200 fruit trees; three acres of alfalfa; one acre of garden; remainder of land susceptible of cultivation, at present covered with timber; place well fenced and cross fenced. New two-story house of eight rooms and closets, hard finished. Good stone cellar under all, 43x23 feet, furnished with first-class cooperage, capacity 14,000 gallons, and all the implements for making wine. A stone dairy; large two-story barn (new), and all necessary farming implements; two wells of good water. A fine home. Price, \$8,000. Address "FARMER," at this office, or G. M., Box 52, St. Helena, Napa Co., Cal.



## Breeders' Directory.

Six lines or less in this Directory at 50c per line per month.

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R. H. ORANE, Petaluma, Cal., breeder and importer. South Down Sheep from Illinois and England for sale.

KIRKPATRICK & WHITTAKER, Knight's Ferry, Cal., breeders of Merino Sheep. Rams for sale.

ANDREW SMITH, Redwood City, Cal.; see adv't.

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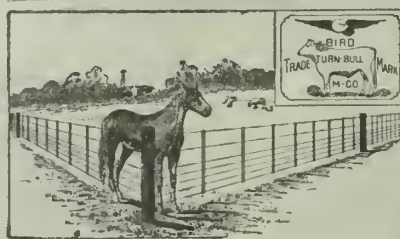
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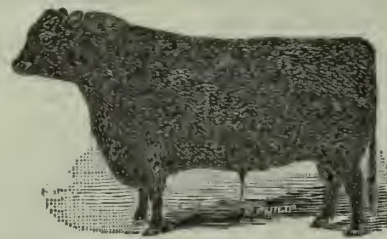
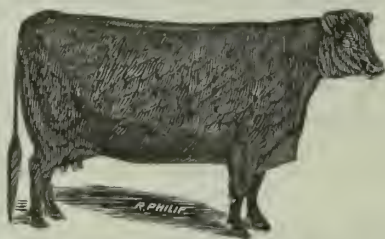


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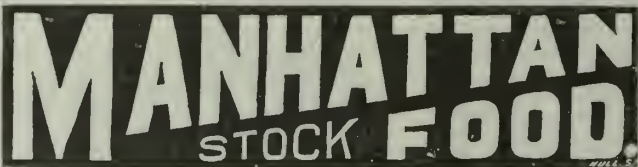
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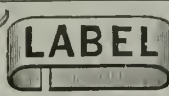
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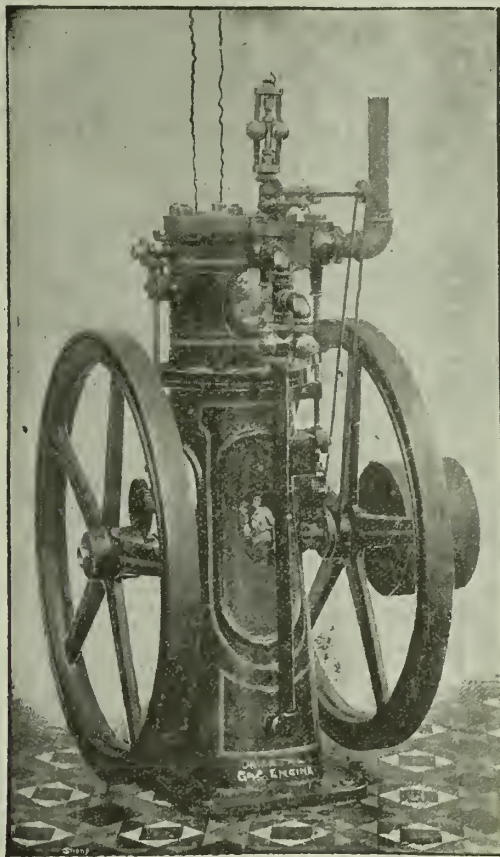
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## S. E. MARKET REPORT

## Market Review.

## DOMESTIC PRODUCE, ETC.

SAN FRANCISCO, May 13, 1891.

Cool, cloudy weather the past week is bailed with unfeigned pleasure by farmers generally. Trade in farm products is restricted largely to fruits and vegetables owing to a scarcity of grains and feedstuff. Hay harvesting is becoming quite general which will soon be followed by the harvesting of grain. The season of 1891-92 promises to be the most prosperous ever before enjoyed. The Eastern and foreign wheat markets have fluctuated. The following is to-day's cablegram:

LIVERPOOL, May 13.—Wheat—Hardening. California spot lots, 8s 6d; off coast, 44s 3d; just shipped, 44s 3d; nearly due, 44s 3d; cargoes off coast and on passage, quiet; Mark Lane wheat, very quiet; French country markets, quiet, but not cheaper; weather in England, brilliant.

## Foreign Grain Review.

LONDON May 11.—The *Mark Lane Express*, in its review of the British grain trade during the past week, says: English wheats are low, excepting finer whites, which are quoted at 44s. In provincial markets flour lost 1/2d per sack, and in London 9d. Foreign wheats are depressed; prices fell 1/2d but subsequently recovered on the prospective reduction of the French wheat tariff. Corn, barley, and oats are weaker.

## Liverpool Wheat Market.

The following are the closing prices paid for wheat options per cwt. for the past week:

	May.	June.	July.	Aug.	Sept.	Oct.
Thursday.....	88 1/2	88 1/2	88 1/2	88 1/2	88 1/2	88 1/2
Friday.....	88 1/2	88 1/2	88 1/2	88 1/2	88 1/2	88 1/2
Saturday.....	88 1/2	88 1/2	88 1/2	88 1/2	88 1/2	88 1/2
Monday.....	88 1/2	88 1/2	88 1/2	88 1/2	88 1/2	88 1/2
Tuesday.....	88 1/2	88 1/2	88 1/2	88 1/2	88 1/2	88 1/2

The following are the prices for California cargoes for off coast, nearly due and prompt shipments for the past week:

	O. C.	P. S.	N. D.	Market.
Thursday.....	45 1/2	45 1/2	45 1/2	Steadier.
Friday.....	45 1/2	45 1/2	45 1/2	Easier.
Saturday.....	45 1/2	45 1/2	45 1/2	Quiet.
Monday.....	45 1/2	45 1/2	45 1/2	Inactive.
Tuesday.....	45 1/2	45 1/2	45 1/2	Buyers holding off.

## Eastern Grain Markets.

The following shows the closing prices of wheat at New York for the past week, per cental:

	May.	June.	July.	Aug.	Sept.	Dec.
Thursday.....	186	182 1/2	179	176	175	175
Friday.....	186 1/2	181 1/2	178 1/2	174 1/2	173 1/2	173 1/2
Saturday.....	186 1/2	181 1/2	178 1/2	174 1/2	173 1/2	173 1/2
Monday.....	186 1/2	181 1/2	178 1/2	174 1/2	173 1/2	173 1/2
Tuesday.....	186 1/2	181 1/2	178 1/2	174 1/2	173 1/2	173 1/2

The closing prices for wheat have been as follows at Chicago for the past week, per cental:

	May.	June.	July.	Sept.	Dec.
Thursday.....	185 1/2	181 1/2	178 1/2	174 1/2	173 1/2
Friday.....	185 1/2	181 1/2	178 1/2	174 1/2	173 1/2
Saturday.....	185 1/2	181 1/2	178 1/2	174 1/2	173 1/2
Monday.....	185 1/2	181 1/2	178 1/2	174 1/2	173 1/2
Tuesday.....	185 1/2	181 1/2	178 1/2	174 1/2	173 1/2

NEW YORK, May 13.—Wheat—\$1.14 1/2 for May, \$1.09 1/2 for July, \$1.05 1/2 for August, \$1.04 1/2 for September, and \$1.05 1/2 for December.

CHICAGO, May 13.—Wheat—\$1.02 1/2 for July, 98 for September and 99 1/2 for December.

## Eastern Wool Markets.

NEW YORK, May 8.—*Bradstreet's* will say: Trade in the leading wool markets has been dull during the week. The larger part of the sales which have been made were Australian wools. Buyers are taking only the very best lots of foreign wools. Inferior Australian wools, of which there is a large supply in this country, are as hard to sell as any poorer domestics. Dealers who have handled these wools this year for the first time have lost heavily on their speculations. Manufacturers have taken the foreign wools only because of their superior quality. They cannot use second-class foreign wools at prices as high as the finest domestic grades. Territories are still in strong demand, but owing to the scarcity of good lots few sales have been made. There has been some movement in Ohio and Michigan wools, but not sufficient to make values firm. Pulled wools are firm and dealers could dispose of a large quantity if they could secure them. Only small lots are coming forward, and it will be several weeks before there will be enough on the market to meet the demand. Carpet wools are reported quiet but firm.

## The Dried Fruit Trade.

NEW YORK, May 9.—The *Commercial Bulletin* says: The market for nearly everything in the line of dried fruits, California goods in particular, is in rather poor shape. The encouragement which holders were inclined to look for early in the week, when the weather conditions threatened to injure the Eastern crops more or less, seems to have passed like a fleeting shadow, now the temperature has risen and no very serious damage has been discovered. With no incentive to buying, except as immediate wants necessitate, jobbers act very indifferently and do nothing that would tend to relieve the depression.

## Hungarian Crops.

BUDA-PESTH, May 11.—The crop report to date shows that barley, oats and feeding stuffs throughout Hungary have suffered greatly, owing to the excessive heat which prevailed recently. The wheat crop is a fair average.

## Visible Supply of Grain.

NEW YORK, May 11.—The following is the statement of the visible supply of grain on Saturday, as compiled by the New York Produce Exchange: Wheat, 20,853,000 bushels, a decrease of 209,000; corn, 3,718,000 bushels, an increase of 503,000; oats, 2,629,000 bushels, a decrease of 210,000; barley, 650,000 bushels, an increase of 57,000.

## Local Markets.

## BARLEY.

	Buyer Season.	Seller 1891.	Buyer 1891.	Seller 1891.
Thursday.....	145	145	110 1/2	110 1/2
Friday.....	145	145	110 1/2	110 1/2
Saturday.....	145	145	110 1/2	110 1/2
Monday.....	145	145	110 1/2	110 1/2
Tuesday.....	145	145	110 1/2	110 1/2

\*After July. †After August.

	*Buyer 1891.	Buyer 1891.	Buyer Season.	Seller 1891.
Thursday.....	164 1/2	174	172 1/2	160
Friday.....	164 1/2	173 1/2	172 1/2	158 1/2
Saturday.....	164 1/2	173 1/2	172 1/2	158 1/2
Monday.....	164 1/2	173 1/2	172 1/2	158 1/2
Tuesday.....	164 1/2	173 1/2	172 1/2	158 1/2

\*After August.

BAGS—San Quentin bags are again in market. The price named is 7 cts. The new Warden appears to be desirous of getting all he can for bags over and above cost. Calcuttas are quoted at 7 1/2 cts.

BARLEY—The local market is quiet but strong, with the demand restricted to actual requirements. In futures trading has been light. The following are to-day's Call Board sales:

Morning Session: Seller 1891—100 tons, \$1.10 1/2; 300, \$1.10; 200, \$1.10 1/2. June—100 tons, \$1.18; 100, \$1.17 1/2 cts. Afternoon Session: Buyer season—300 tons, \$1.45 1/2 cts.

BUTTER—Receipts continue free. The demand is good for both packing and consumption. The prices East will not admit of shipments to this coast.

CHEESE—The market is heavy and easy under free receipts and buyers being offish.

EGGS—The tone of the market is strong and healthy under lighter receipts and a good demand. Prices are better at the East which will favorably affect our market.

FLOUR—The market is strong at full prices. The demand on Puget Sound from China and Japan owing to cheap freights, attracts about all of Oregon's and Washington's surplus to that point.

WHEAT—The market for sample parcels is very strong. On Call futures have been fairly active at slight fluctuations. The following are to-day's Call Board sales:

Morning Session: Buyer 1891, after August 1st—600 tons, \$1.65 1/2 cts. Afternoon Session: Buyer 1891—100 tons, \$1.73 1/2; 100, \$1.73 1/2. Seller 1891—1000 tons, \$1.60; 600, \$1.59 1/2; 100, \$1.59 1/2; 200, \$1.59 1/2. Buyer 1891, after August 1st—100 tons, \$1.66; 200, \$1.65 1/2 cts.

## Market Information.

## Produce Receipts.

Receipts of produce at this port for the week ending May 13th, were as follows:

Flour, gr. sks.....	51,577	Middlings, sks.....	2,692
Wheat, cts.....	162,802	Alfalfa.....	10
Barley, ".....	14,281	Chicory, bbls.....	10
Rye ".....	1,402	Broomcorn bbls.....	18
Oats ".....	19,269	Hops, bbls.....	18
Corn ".....	267	Wool, ".....	3,053
*Butter ".....	1,337	Hay, tons.....	1,350
do bxs.....	215	Straw ".....	24
do bbls.....	215	Wine, gals.....	280,846
do kegs.....	25	Brandy, ".....	5,470
do tubs.....	25	Raisins, bxs.....	935
do 1/2 bxs.....	370	Honey, cs.....	13
†Cheese, cts.....	1,162	Walnuts, sks.....	464
do hxs.....	32	Flaxseed, ".....	464
Eggs, doz.....	33,029	Mustard, ".....	92
do " Eastern.....	58,000	Almonds, ".....	5
Beans, cts.....	2,847	Peanuts, ".....	92
Potatoes, sks.....	11,425	Popcorn, ".....	92
Onions, ".....	3,006	Beet sugar, bbls.....	92
Brans, ".....	9,140	do do sks.....	92
Buckwheat ".....	9,140	do do sks.....	92
*Overland.....	cts.	†Overland.....	270 cts.

## Cereals.

The local wheat market for sample parcels has held to strong prices under a growing scarcity of supplies and increased wants. As has been repeatedly shown in these columns and as stated would be the case as early as July and August of 1890, the available supply in this State is short of requirements up to new crop season, or when 1891 wheat would be sufficiently dry to export without the fear of its beating while in transit. The arrival of deep sea tonnage the past week was quite large, adding materially to the chartered wheat vessels in port. If charterers can by some kind of move best known to themselves, prevent the ships from discharging their inward cargoes until the last day of grace, and then not furnish wheat cargoes until just before the time expires for the vessels to be loaded, so as to save demurrage, then it is altogether likely that late arrived vessels will not have outward cargoes furnished before the new season is entered. But, on the other hand, it is an open secret that during the rise in wheat values in last month, many cargoes were sold in England for May-June shipments, which being the case, will undoubtedly call for all the available old wheat here before the end of next month. The tactics of the ship and wheat rings are evidently to keep the California wheat market down to as low figures as possible for futures on Call, so as to compel the entering of the season of 1891-92 on a low basis; whether they will succeed or not depends largely on farmers. If the latter from one cause or another offer their grain freely, then the rings will be successful, but if farmers are reserved in their offerings they are liable to have their well laid scheme go amiss. While the crop on this coast and east of the Rocky mountains promises to be largely in excess of last year's output, yet European requirements owing to well authenticated short crop prospects, will compel the buying of our surplus at good round figures. This will be particularly the case if the price of silver advances so as to make Indian and Russian wheat cost more laid down in the consumption markets of Europe. This is why wheat operators are such close students of the silver market, and also why well informed farmers, those who keep abreast of the times in information on the influences on the wheat markets of the world, are such strong advocates for the remonetizing of silver by this government.

Cool cloudy weather the past week has improved crop prospects. With its continuance for a fortnight or so, the grain will average plumper and heavier. The bear movements to depress barley have not been successful. The cooler weather of the past week has caused the necessity for early or forced harvesting to no longer exist, and therefore first crop consignments are not likely to come to hand for a fortnight. Many localities report "no barley on hand," and this is not all, for several of them will not harvest for the grain, for they have bar-

vested hay, owing to the high price of the latter and fears regarding the yield in grain. The crop in this State will, it is claimed, be about 50 per cent larger than last year's. In other words, the increased yield will about offset the quantity carried over from 1889-90 into the season of 1890-91. The quantity that will be carried over from 1890-91 into 1891-92 will be very small.

Oats have held firm at hull figures. Receipts have not equalled the demand, which compelled dealers to draw on the reserve stocks to meet the demand. Crop prospects are uniformly good. In Western Oregon most too much rain is reported.

Corn has made another up move, particularly white. The latter is taken in preference for shipping to Central American ports, and as the supply in the State is light, any marked demand is met by higher asking prices. The market is higher now than for many years past. Eastern markets are also higher.

Buckwheat and rye are unchanged.

## Feedstuff.

Ground feed has continued in fair demand, with an advance for feedmeal. Honolulu is drawing bran quite largely from this port and also from up north. The lower outward freights up north attract supplies from there, but all taken there is just so much less to come to this city.

Choice to extra choice old hay is wanted, with, in some instances, a slight advance obtainable. New hay is beginning to cut an important figure. Harvesting is under full headway in several localities. Many more fields than heretofore claimed have been cut for hay, yet it looks as if the outturn will not be in excess of requirements.

## Fruits.

First consignment of this season's blackberries came to hand yesterday (Tuesday). The shipment was made by S. W. Ralston of Courtland. They fetched \$1 a drawer.

Strawberries have eased off to still lower figures. Many consignments received the past week were in bad order, and had to be sold "as is" for the best obtainable prices.

The first carload of cherries for the East was sent forward to-day from Vacaville. It is said that for early maturing cherries, Eastern buyers are paying in the orchard 4c, per lb for Black Tartarians and 5 to 6c for choice white. A large buyer quotes to the writer the following prices for green fruits per ton: Apricots, \$20 to \$25; Egg plums, \$30 to \$40; canning peaches, \$30 to \$40; Bartlett pears, \$30 to \$45. The price depends largely on the locality and expense of getting the fruit when ready. Prunes are running from \$30 to \$40 a ton. It is very hard, as yet, to get reliable quotations, owing to the feverish condition of the market, caused by the uncertainty regarding Eastern crops.

Crop prospects continue favorable. The tenor of advices indicate that the yield of prunes will not be so large to the tree, but there will be more trees in bearing. The same remarks apply to apricots.

The dried fruit market is about cleaned up. For next season's fruit some contracts are reported to have been made within the past two weeks, but particulars are withheld.

Raisins continue to come forward in struggling parcels. It is claimed that all holdings will be closed out before the end of next month.

Oranges have come in quite freely, with the bulk of receipts poor to fair, and of course hard to sell. Cooler weather is against the local market. Choice to extra choice oranges are wanted and when of proper size fetch fair prices.

Orchardists will confer a favor by advising us what buyers are offering for fruit.

## LIVE-STOCK.

Bullocks and mutton sheep are barely steady. The offerings are largely from owners who wish to sell all they can before driving their stock to new pastures. It is claimed that better prices are liable to obtain soon. Hogs are weak at shaded prices. The weakness is not so much from increased selling offers, as it is to the lessened demand. Milch cows and horses are virtually unchanged.

The market for dressed cattle is quoted as follows (to obtain the price on foot, take off from the price for stall-fed one-third to one-half, according to the nature of the feed and time fed; and for grass-fed take off the price from 40 to 60 per cent):

HOGS—On foot, light grain fed, 5 1/2 cts @ lb; dressed, —@—c @ lb; heavy, 4 1/2 cts @ lb; dressed, —@—c @ lb. Stock hogs, 4 1/2 cts @ lb. BEEF—Stall fed, 6 1/2 cts @ lb; grass fed, extra, 6 1/2 cts @ lb; first quality, 5 1/2 cts @ lb; second quality 5 1/2 cts @ lb; third quality, 4 1/2 cts @ lb; bulls and thin cows, 2 1/2 cts @ lb. VEAL—Small, 6 1/2 cts @ lb; large, 5 1/2 cts @ lb. MUTTON—Wethers, 7 1/2 cts @ lb; ewes, 7 1/2 cts @ lb; spring lamb, 7 1/2 cts @ lb.

## Vegetables.

Garden truck is coming in quite freely. Peas are a glut. Cannons are now running on them. The quality averages well. String beans of the different varieties are coming in more freely and prices shading. From up north there is a fair demand. Summer squash are in increasing supply. Cucumbers are still backward. Tomatoes are scarce. Spring cabbage, celery and cauliflower are in fair supply.

New crop onions are coming in quite freely. The more matured meet with a quick demand, but the other kinds are slow and hard to place.

For old potatoes the market is demoralized, and correct quotations hard to give. After this week, quotations will probably be withdrawn. New potatoes continue to increase in quantity and also in quality. The trade is running more largely on them to the neglect of old. Shipments East by rail and up north are quite large. The crop is very large.

## Miscellaneous.

In poultry, turkeys, hens, roosters, broilers and fryers have made quite an advance under a growing scarcity and a good demand. Other fowls are stronger.

Beans are reported firm, but no higher. Crop prospects are uniformly good in this State. Eastern advices indicate a fair to good crop this year.

Old bops are about cleaned up. For new crop hops, 15 to 20 cts is said to be the contracting price. Many growers will not contract, preferring to take chances when their crop is ready for market.

While there is no change in the wool market, yet everything points to better prices. This is based on light supplies in manufacturers' hands and the goods market being cleaned up. But, better still,

the indications throughout the United States point to good crops and good prices, both of which bring prosperity and create a better demand for goods.

Honey is in light receipt. We saw a consignment the past week, which was either adulterated or the bees fed on very inferior and unpalatable flowers, or else the cans in which it was put were not properly cleaned. Great care should be exercised by shippers.

It is claimed by many that the almond crop will be short; be that as it may, the nut is now scarce and higher.

From reliable advices up to May 13th the following summary of tonnage movement is compiled:

On the way to	1891.	1890.
San Francisco.....	246,869	187,346
San Diego.....	16,497	13,495
San Pedro.....	7,632	10,167
Oregon.....	33,376	26,764
Puget Sound.....	33,762	19,051

Totals.....338,136 256,823

In port at		
San Francisco, disengaged.....	14,683	7,144
" engaged for wheat.....	51,429	40,841
San Diego.....	22,581	
San Pedro.....		12,867
Columbia River.....	14,844	
Puget Sound.....		

Totals.....83,537 60,852

To get the carrying capacity, add 65 per cent to the registered tons as given above.

From July 1, 1890, to April 30, 1891, the following are the exports from this port:

	1891.	1890.
Wheat, cts.....	11,849,326	11,799,109
Flour, bbls.....	1,032,326	955,279
Barley.....	219,185	931,648

## Domestic Produce.

Extra choice in good packages fetch an advance on top quotations, while very poor grades sell less than the lower quotations.

WEDNESDAY, May 13, 1891

## BEANS AND PEAS.

Bayo, cts.....	3 40	@ 3 65
Butter.....	2 70	@ 3 05
Peas.....	3 00	@ 3 35
Red.....	2 50	@ 2 75
Pink.....	2 20	@ 2 45
Small White.....	3 00	@ 3 20
Lima.....	3 00	@ 3 40
Flour.....	1 65	@ 1 85
do green.....	1 50	@ 1 80
do Eastern.....	2 50	@ 3 00
do Niles.....	1 70	@ 1 85
Split.....	4 1/2	@ 5 1/2

## BROOM CORN.

Chico to Extra 100 @ 115 00	
Fair to Good.....	70 00 @ 95 00
Poor.....	50 00 @ 60 00

## ONIONS.

California.....	5 1/2	@ 6
German.....	6 1/2	@ 8

## POTATOES.

New, 100 lbs.....	85	@ 1 25
Early Rose.....	40	@ 9
Tomatoes.....	35	@ 35

## DAIRY PRODUCE, ETC.

Cal. Poor to fair.....	15	@ 20
do good to choice.....	18	@ 20
do Gilted.....	21	@ 21
do Creamery.....	21	@ 21

## EGGS.



Fruits and Vegetables.

Choice selected. In good packages, fetch an advance on quotations, while very poor grades sell less than the low quotations.		WEDNESDAY, May 13, 1891.	
Bananas, bunch	1 50 @ 3 00	VEGETABLES.	
Limes, Mex	7 00 @ 7 50	Okra, dry, lb	20 @ 30
do California	— @ —	Parasips, cti	1 25 @ 20
do sm'l hxs	— @ —	Peppers, dry, lb	12 @ 20
Lemons, box	2 00 @ 3 50	do green	15 @ 20
do Riverside	2 00 @ 3 50	Turnips, cti	75 @ —
do Los Angeles	1 50 @ 2 00	Beets, sk	— @ 1 00
do Sicily, bx	5 50 @ 7 00	Cabbage, 100 lbs	40 @ 55
Seedling Oranges	1 75 @ 2 25	Carrots, sk	50 @ —
do Riverside	1 75 @ 2 25	Garlic, lb Italian	1 @ —
do Los Angeles	1 25 @ 1 75	do California	10 @ 15
Navel Oranges	5 25 @ 6 00	Asparagus, bx	50 @ 1 00
do Riverside	3 00 @ 3 50	do ex. choice	1 25 @ 1 75
do Los Angeles	1 50 @ 2 00	Mushrooms	15 @ 25
do do scaly	1 50 @ 2 50	Onion, lb	15 @ 25
do Duarte	3 00 @ 3 50	Choice	25 @ 40
Pineapples, doz	4 00 @ 5 00	Celery, per doz	40 @ 50
Strawberries, Chest	7 00 @ 9 00	Cauliflower, doz	35 @ 50
Choice to extra	7 00 @ 9 00	Tomatoes, box	— @ —
do fair to good	3 50 @ 6 30	S'm's Squash, lb	1 00 @ 1 50
Cherries, light bx	40 @ 75	Cucumbers, doz	50 @ 90
do do dark	1 00 @ 1 75	Rhubarb, bx	35 @ 1 00
Gooseberries	4 @ 5	Peas gr'n com sk	45 @ 75
Blackberries	— @ 1 00	do sweet	75 @ 1 00
drawer	— @ 1 00	String Beans, lb	3 @ 6
		do do wax	8 @ 10

\*In quoting oranges, regular sizes are given, viz. from 2 to 176 for Navel, and 126 to 226 for seedlings; odd sizes 50 cents to \$1 @ box less.

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PACIFIC COAST WEATHER FOR THE WEEK.

(Furnished for publication in this paper by officer in charge of branch Signal office, Division of the Pacific.)

DATE May 6-12	Olympia.				Portland.				Eureka.				Red Bluff.				Sacramento.				S. Francisco.				Fresno.				Keeler.				Los Angeles.				San Diego.									
	Rain	Temp.	Wind	Weather.	Rain	Temp.	Wind	Weather.	Rain	Temp.	Wind	Weather.	Rain	Temp.	Wind	Weather.	Rain	Temp.	Wind	Weather.	Rain	Temp.	Wind	Weather.	Rain	Temp.	Wind	Weather.	Rain	Temp.	Wind	Weather.	Rain	Temp.	Wind	Weather.										
W.	.32	50	N	Cy.	.30	58	S	P	C	.06	58	W	Cy.	.08	68	S	E	P	C	.46	64	S	W	Rn.	.T	60	S	W	Cy.	.02	84	S	W	Cl.	.00	76	S	Cl.	.01	62	W	Cl.	.00	64	W	Cl.
T.	.34	46	S	Rn.	.06	52	N	P	C	.00	52	N	Cl.	.00	68	S	E	Cl.	.00	64	S	Cl.	.00	56	W	Cl.	.00	72	N	W	Cl.	.00	68	S	Cl.	.00	62	W	Cl.	.00	64	W	P	C		
F.	.00	58	N	Cl.	.00	58	N	Cl.	.00	54	N	Cl.	.00	78	N	Cl.	.00	74	N	W	Cl.	.00	60	W	Cl.	.00	76	N	W	Cl.	.00	70	W	Cl.	.00	64	W	Cl.	.00	64	N	W	Cy.			
S.	.00	66	N	W	Cl.	.00	72	N	Cl.	.00	54	N	Cl.	.00	84	W	Cl.	.00	86	N	E	Cl.	.00	58	S	W	Cl.	.00	84	N	W	Cl.	.00	72	S	W	Cl.	.00	62	W	Cl.	.00	64	N	W	Cy.
S.	.00	78	N	W	Cl.	.00	82	N	Cl.	.02	52	N	Cy.	.00	86	S	Cl.	.00	80	S	Cl.	.00	54	S	W	Cl.	.00	88	N	W	Cl.	.00	78	S	W	P	C	.00	60	W	Cy.	.T	60	N	W	Cy.
M.	.T	80	N	W	Cl.	.00	76	S	W	Cl.	.00	52	N	Cy.	.00	76	S	E	Cl.	.00	64	S	W	Cl.	.00	54	W	Cy.	.00	80	N	W	Cl.	.....	.....	.....	.....	.00	60	W	Cy.	.00	62	W	Cy.	
T.	.00	56	N	W	Cy.	.02	56	S	W	P	C	.02	52	N	Cy.	.00	66	S	E	Cy.	.00	62	S	P	C	.00	54	W	Cy.	.01	68	E	Cy.	.....	.....	.....	.....	.T	60	W	Cy.	.00	62	N	W	Cy.
T.	.66	.....	.....	.....	.38	.....	.....	.....	.....	.10	.....	.....	.....	.08	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.T	.....	.....	.....	.....	.03	.....	.....	.....	.....	.00	.....	.....	.....	.....	.T	.....	.....	.....	.....	

EXPLANATION. - Cl. for clear; Cy., cloudy; Fr., fair; Cm., calm; - indicates too small to measure. Temperature wind and weather at 5 P. M. (Pacific Standard time) with amount of rainfall in the preceding 24 hours. T indicates trace of rainfall. P C, partly cloudy. Rn., rain.

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Gradina—A Digestive Ferment From the Fig.

In 1880, in a communication to the French Academy of Science, M. Bonchout reported that he had found the juice collected from the common fig tree (*Ficus carica*) to contain a powerful ferment capable of digesting albuminoid substances, thus confirming a belief of the ancients that the juice possesses digestive properties. This ferment is now the subject of a paper by Dr. Mussi, in which he reports its isolation, and describes its properties. Juice collected from the fruit and branches of the fig was filtered to remove the serous portion from the insoluble, the latter repeatedly washed with water, and the washings added to the filtrate. This liquid, which after repeated filtration, was obtained limpid, was distinctly acid in reaction, and when placed in contact with moist fibrin, digested it completely. It was evaporated to a small volume, again filtered, and treated with absolute alcohol, which threw down a plentiful white precipitate that dried, when exposed to the air, to a dark-yellow amorphous mass. This, when treated with water, swelled up and imparted a milky appearance to the liquid, but a clear filtrate from it, though it gave the reactions of vegetable albumen, had no digestive power. The residue, insoluble in water, dissolved readily upon the addition of a trace of acid or alkali, and the solution, placed in contact with moist fibrin, effected complete and true digestion. To the ferment thus isolated Dr. Mussi gives the name "gradina," from *krade*, the name given by the Greeks to the part of the fig with which they specially associated the digestive property. It contains nitrogen, and in the dry state it forms a friable, semi-transparent, dark-yellow, amorphous mass, yielding an amber-yellow powder. In water it swells, but does not dissolve, though upon being shaken it imparts to the liquid a milky appearance. When dissolved by the aid of alkali or acid a concentrated solution is dark-yellow, but becomes colorless upon being diluted. Gradina differs from pepsin in maintaining its digestive power in an alkaline liquor, and from papain or papayotin in being insoluble in water, not precipitated from solution by alcohol or lead acetate, and in its activity not being diminished in the presence of hydrochloric acid. In a neutral liquid it is devoid of digestive power and it has no reaction upon starch.—*Pharm. Journal*.

A SENSIBLE INNOVATION.—Railroad economy has at last attacked the brass ornamentation of the locomotives, and hereafter all the principal railroad companies in the country will use painted wrought iron and blued steel where formerly burnished brass reflected and multiplied the rays of the sun. The new departure will cause a material saving in the labor of the engineers, the number of extra wipers employed about the shops and the original cost of the locomotives. The late Franklin B. Gowen, while President of the Reading Co., was the first to appreciate the great waste in the profuse use of brass, and he greatly reduced the quantity on all new locomotives built. It is only recently, however, that the use of the metal has been almost entirely abolished, and where formerly a locomotive looked as if dressed out for a holiday, there is to-day nothing but sombre black, giving the machine a very business-like appearance. The Pennsylvania Railroad Co. has also built all its new engines without any conspicuous brass ornaments. Freight engines were the first to begin the economy, which has now extended to locomotives of all classes. One of the officials of the company, in speaking of the change recently, said: "The use of the brass was expensive in many ways. It increased the original cost of the locomotive, took up the time of the engineer and fireman to polish it, besides the work of a large force of wipers in the round-houses. These wipers are now done away with entirely, and the engineer and fireman can clean their engine with a few passes of waste. The new departure has been coming into operation gradually. Old engines were not altered, but they were replaced by better and more business-like machines."—*Philadelphia Record*.

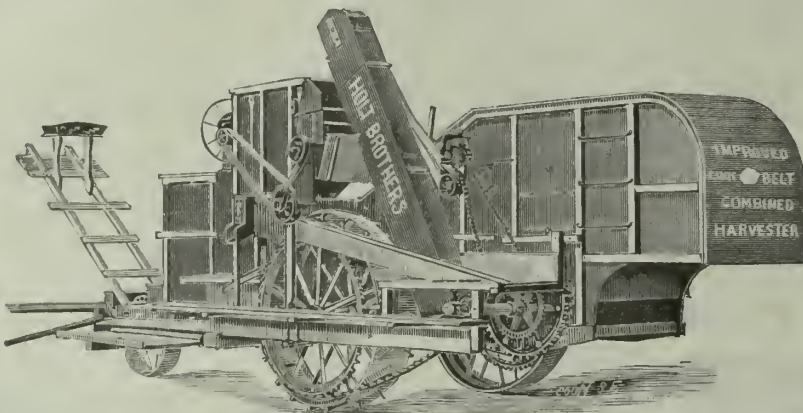
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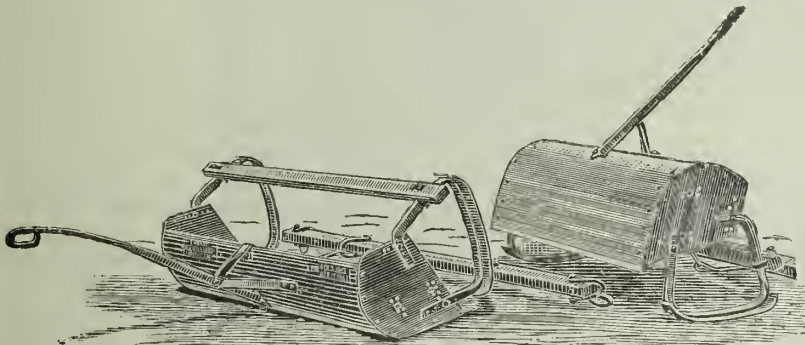
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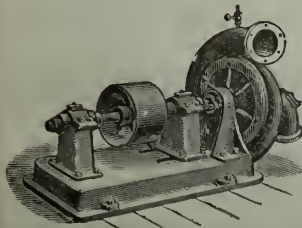


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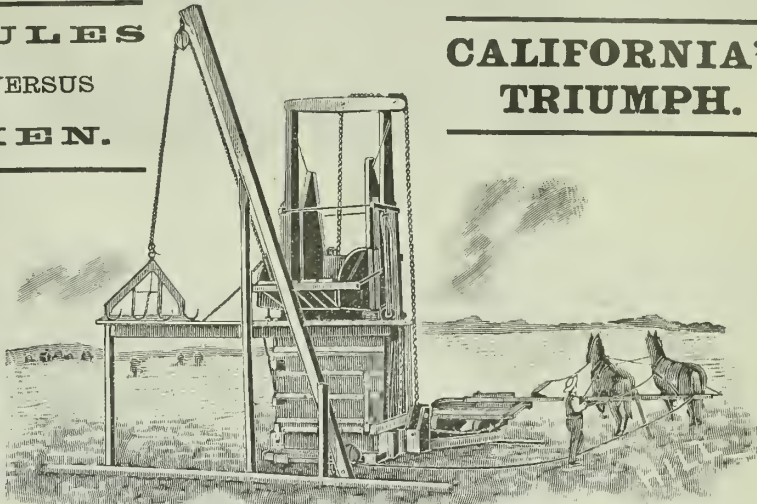
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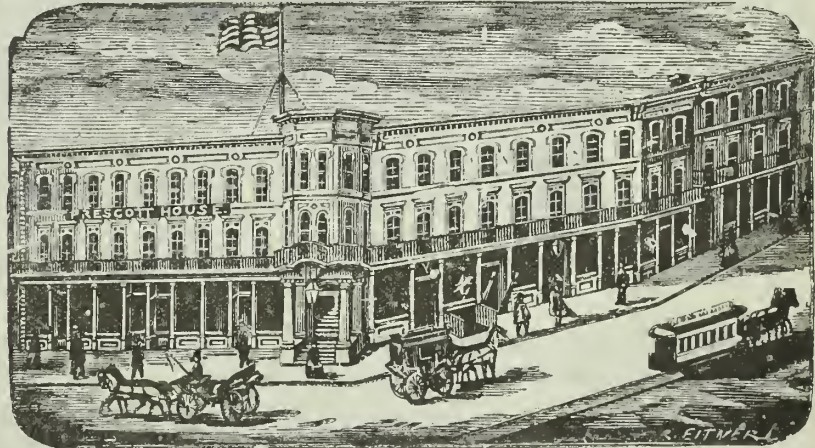
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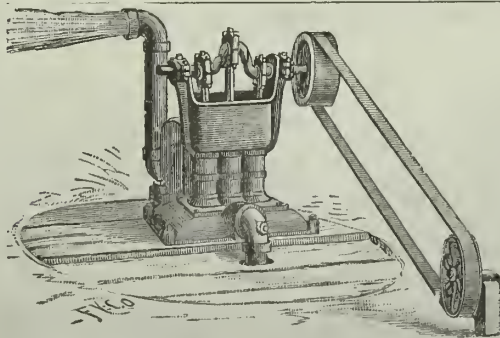
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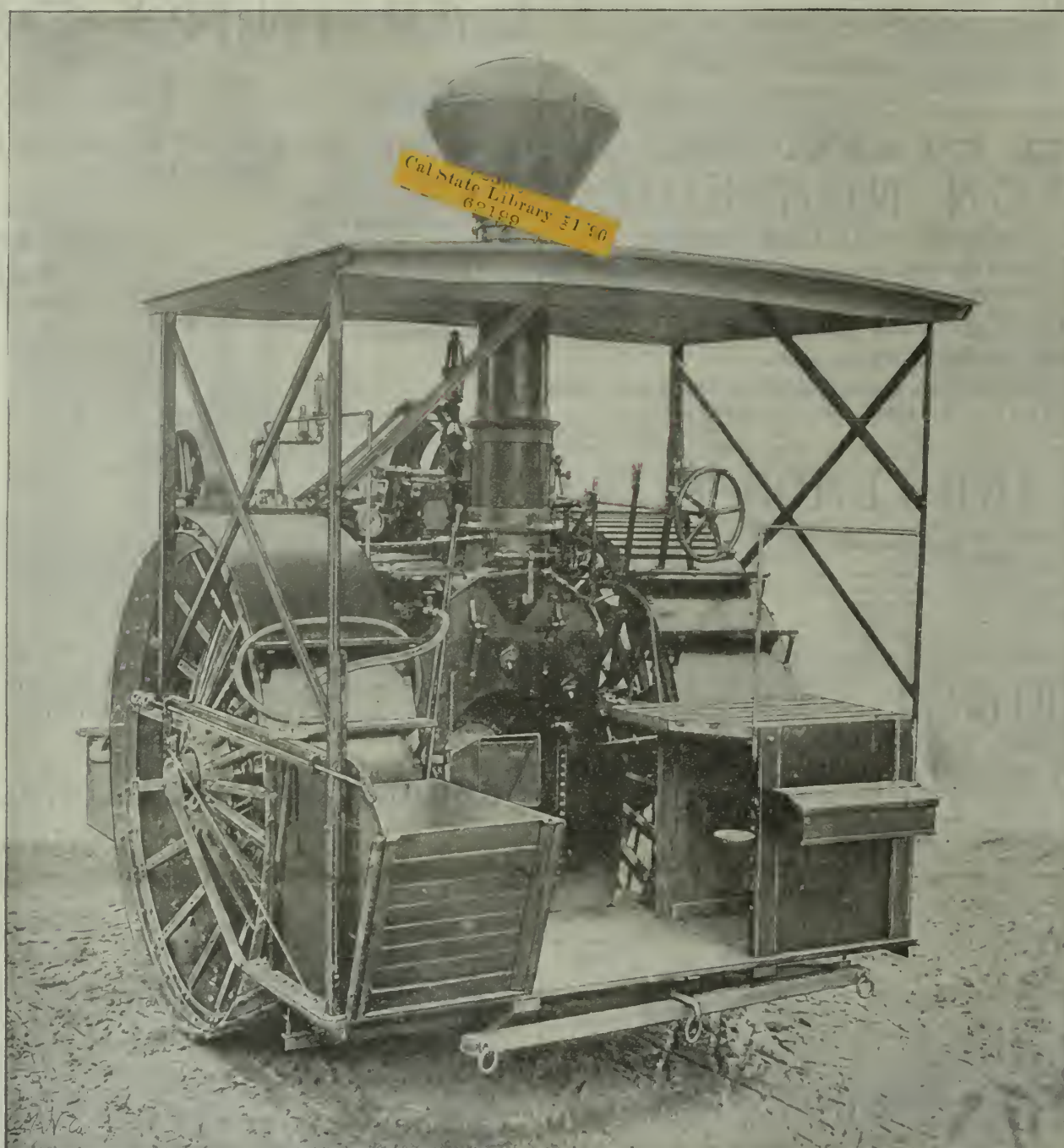
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	Diameter in Inches.	Length of Stroke in Inches.	FIRE-BOX.			SHELL. Diameter in Inches.	Number.	FLUE.		MAIN FLUES.		Diameter in Inches.		Width of Face in Inches.	Diameter in Inches.	Width of Face in Inches.		
			Height in Inches.	Length in Inches.	Width in Inches.			Diameter in Inches.	Length in Inches.	Diameter in Inches.	Length in Inches.							
35	9	12	46	44	34	40	32	8	108	17	60	250	96	26	54	18	26,000	

SEE OTHER VIEW OF ENGINE ON PAGE 481 OF THIS ISSUE.

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Vol. XLI.—No. 21.

SAN FRANCISCO, SATURDAY, MAY 23, 1891.

{ DEWEY & CO., Publishers,  
Office, 220 Market St.

### Scenes in Oregon.

Our leading illustration this week presents a view of one of the great mountains of the Pacific Coast—Mt. Hood, situated 60 miles due east of Portland, Oregon. Of this grand elevation and its surroundings, C. S. Sprecher wrote in last month's *Golden Era*, as follows: Since the day that Bierstadt put Mt. Hood on canvas, hung in the mists of the cataracts of Columbia, Mt. Hood has been the world's ideal of a mountain—simple, plain, impressive; rising in bold pyramid form, its broad base resting in the dark forest—in those interminable woods where once "rolled the Oregon and heard no voice save the sound of his own dashings." Mt. Shasta is a higher elevation than Mt. Hood, and Mt. Whitney is higher than either of them; and yet Mt. Whitney has never come into the observation and admiration of the world. Mt. Whitney is out of the way—seldom visited by tourists. Per contra, Mt. Hood or Mt. Shasta are right under the eyes of the world. Mt. Hood is 60 miles due east of Portland City. Portland is on a slight elevation above sea level, and the wide valley of the Willamette lies between it and the mountain. It would be impossible to have a finer mountain view, and yet we are standing on the street of a city of 80,000 people. From any



MOUNT HOOD, SIXTY MILES EAST OF PORTLAND, OREGON.

street corner it seems you might reach out your hand and touch the white snow peak. From Portland there are seven snow peaks in full view. These are Mt. Hood, Mt. Adams, Mt. St. Helens, Mt. Jefferson, and the Three Sisters. These stand around the broad expanse of the Willamette and Columbia valleys, and Mt. Hood is the king of all. Such grand en-

vironment should be a constant inspiration to lofty thoughts and honorable deeds.

The following appreciative lines to Mt. Hood are from the pen of Charles Grissen:

Behold his glittering brow uplifted high!  
Like sail first seen upon the rolling main  
Appears his snowy head above the plain,  
Growing in grandeur in your beaming eye,  
Clear and distinct against the azure sky.  
Beneath him lies outspread a vast domain,  
O'er which by nature he seems placed to reign.  
A vain procession, passing ceaseless by,  
Looks up with wondering eye at his bright face:  
A moment only seeming in his sight  
They pause, then sink with the approaching night  
Into oblivion's tomb, race following race;  
But he despite decay and death, remains  
The proud and changeless monarch of the plains.

The development of the resources of Oregon is building up many wide awake towns in different parts of the State. We have had views of a number of them in previous issues of the *RURAL*. Upon this page is a view of Jacksonville, the chief town in the rich Rogue River Valley in Southern Oregon. For beauty of situation and desirability and productiveness of its outlying country as well as for its thrift and progressiveness it is a notable town.

A LARGE CITRUS PLANTING.—Oroville announces one of the largest land sales made in this section for some years for fruit purposes. Col. E. S. Weeden of Chicago has purchased 627 acres, which he will plant to oranges and lemons, intending to plant the whole tract to citrus fruits inside of 12 months.



JACKSONVILLE, IN ROGUE RIVER VALLEY, SOUTHERN OREGON.



## THE FIELD.

## Pacific Coast Hop Notes.

The Sacramento Bee of May 14th reports the hopaphis in that district as follows:

The hop-growers along the Sacramento river are somewhat alarmed over the appearance of great numbers of the destructive hop aphid or lice on the vines. The latter are, in most of the luxuriant fields south of the city, already grown to the top of the long poles. Hop men Tuesday brought in several vine shoots, the stalks of which were covered with the enemy of the hop species of vegetation and exhibited them under the microscope. The growers believe that the insect is the same that has been seen here in other years, but in nearly every instance it is much larger, and is so numerous as to threaten the destruction of whole fields of hops.

The pest seems to prey upon the young and tender shoots or stalks while ignoring the foliage, and works in such a way, if undisturbed, as to draw the vitality from the stalk.

The insect is believed to have been introduced in this section from roots brought here from Oregon and Washington. In these States it has wrought great havoc in past years.

A hop man said yesterday that he did not anticipate very much damage from aphid unless the damp weather continues. The pest cannot survive in dry weather and has doubtless attained its present unusual numbers and size through the favoring rains that followed one another during April. Not all the growers are so confident that the pest will succumb to the dry weather that may be expected to follow the present clouded skies. The aphid has already attained such formidable fatness that it may be able to withstand a drizzle long enough to destroy the hop vines. Specimens of the pest have been forwarded to Prof. Hilgard at the Agricultural Station, Berkeley.

ad field

## Rumors From the North.

The Anaconda Farmer (Washington) of May 8, has the following:

Horst Bros. of Tacoma filed four hop contracts as follows on May 1st: John Stephens Alderton, 8000 pounds at 15 cents, October delivery; James Knox and Harry E. McGowan, Puyallup, 10,000 pounds, at 15 cents; Frederick Balck, Lime Kiln Station, 4000 pounds at 15 cents; August Hammill, Lime Kiln Station, 10,000 pounds, at 15 cents.

G. J. Hanson of the Hanson Hop and Malt Co., of Milwaukee, arrived in Tacoma the other day, having made a tour of inspection of the California and Oregon hop fields. Mr. Hanson said: "I predict that a large portion of the hops of Washington will this year be destroyed by hop lice. The conditions seem favorable for a wholesale devastation of the Washington hop by that vermin. I think that our experience in Wisconsin will be repeated. There, the year previous to the season when the lice wiped out our crop, there were but few lice, and the following year there were millions of them. The prospects are that the California and Oregon hop yield will, this year, be much more of an average crop than the Washington yield." Mr. Hanson visited Puyallup and North Yakima. Last year his firm used 2500 bales of Washington hops.

Statements relative to the acreage and probable yield of hops this year are a little contradictory. Since the published statement, a few days ago, by a prominent hop man, that there will be an increased acreage in California and Washington, some of the King county growers have been seen and they opposed this view so far as it relates to King county. William Cochran of White River says that he has yet to learn of a single acre of new hops having been set out. On the contrary, the acreage is probably less, and the yield cannot be much over one-half or two-thirds of the acreage of the county, by reason of the action of the growers in keeping the vines down to one and two to a hill. The loose rears of last year has had the effect of making the King county growers cautious, and this year they are imitating a practice common elsewhere but new here, that is, to confine the runners in a hill to one and two, instead of three, four and five, and thus lessen the foliage. Spraying to kill the hop pest will, in this way, be easily done, but with the abundant foliage of the vines here, it has been found quite impossible to combat the lice. In consequence of this cutting back a better quality of hops will result, but greatly at the expense of the quantity produced. The yield here will probably be something like that in Europe and the Eastern States, 1100 or 1500 pounds to the acre, instead of 2000 and 3000 pounds, as is usually the case.

## Japanese Hop Pickers.

The Sacramento Bee has the following on the picking problem:

A great many Japanese are and have been working in the hop fields in Sacramento county. The Restriction Act has had the effect of transforming the meek and lowly Chinaman from an humble and submissive servant to a proud and imperious dictator. A whim is enough to throw a gang of him into a strike, and to cross his purpose is to invite his expensive displeasure. The Chinese on these occasions have the best of it, because to permit them to abandon a fruit or hop crop in the midst of the gathering is more costly than to yield to their demands.

Chinese labor is scarcer than it used to be, and the cunning Mongolians are taking advantage of their position. The hop-growers have had experiences with the Chinese last year and the year before, and flew to Plater, and this season to Japanese for relief.

Last summer the Chinese discovered that hops had advanced in price, and the coolies were quick to take advantage of the opportunity to boost their wages. It is something of a condescension nowadays for Chinese to work at all. In this condition of affairs the Japanese are dropping into the places that used to be filled by the coolies.

The Japs are a more docile and obedient lot. They are exceedingly polite, and greet the "hose" of mornings with doffed hat and a bow. They are quick to learn, diligent, and not very exacting in the requirements for their personal comfort. In fact, very little satisfies them. Where they work by the day they are paid \$1. but some of them contract in numbers at \$27 a month. In all cases the Japs pay for their own board. Unlike the Chinese, the Japanese readily adapt themselves to the customs of the country. They wear civilized clothing and buy their food of American grocers and butchers. Thus far they have been generally confined in their work to trailing and trimming the hop vines and similar work.

The hop men appear to be very well satisfied with the Japanese experiment, and say that they are unable to get white men to do the work that the Mikado's subjects are glad to do. It is not unlikely that the dollar-a-day feature of the matter has something to do with the aversion of the ordinary laborer to the hop fields, besides the fact that white men are rarely equipped with housekeeping utensils as the inferior races are, and they will not herd together like the latter.

## THE IRRIGATOR.

## Railroads in Irrigation Districts.

The Southern Pacific Railroad Company has filed a petition with the secretary of the Anaheim Irrigation district, praying that their property situated in the district be excluded therefrom. The property includes 7.75 miles of road-bed, telegraph lines, lands, etc., assessed last year at a total valuation of \$75,835, and taxed for \$379.18. The tax, however, has not been paid. The petition will be heard at the meeting of the board to be held on June 21 next. This very severe complication of our district's affairs deserves the careful consideration of every taxpayer in this community. The law, however, is very plain upon this point, and the Board of Directors may, in their discretion, refuse to grant the petition. Chapter 21 of the Wright Act provides for the exclusion of lands from irrigation districts. Let us look at it closely and see how the railroad stands. Sections 4 and 5 are as follows:

Sec. 4. The Board of Directors, at the time and place mentioned in the notice, or at the time or times to which the hearing of said petition may be adjourned, shall proceed to hear the petition and all objections thereto, presented in writing by any person showing cause as aforesaid why the prayer of said petition should not be granted. The failure of any person interested in said district to show cause in writing why the tract or tracts of land mentioned in said petition should not be excluded from said district, shall be deemed and taken as an assent by him to the exclusion of such tract or tracts of land, or any part thereof, from said district, and the filing of such petition with such board, as aforesaid, shall be deemed and taken as an assent by each and all of such petitioners to the exclusion from such district of the lands mentioned in the petition, or any part thereof.

Sec. 5. The Board of Directors, if they deem it not for the best interest of the district that the lands mentioned in the petition, or some portion thereof, should be excluded from said district, shall order that said petition be denied; but if they deem it for the best interests of the district that the lands mentioned in the petition, or some portion thereof, be excluded from the district, and if no person interested in the district show cause in writing why the said lands, or some portion thereof, should not be excluded from the district, or if, having shown cause, withdraws the same, and also, if there be no outstanding bonds of the district, then the board may order that the lands mentioned in the petition, or some defined portion thereof, be excluded from the district.

May our board grant the petition? Clearly, under the law, they would not be justified in so doing. The exclusion of the railroad would certainly not be for the best interests of the district. The district was formed by the sovereign will of the people, and it is but just that the railroad should bear its proportion of the expense. The irrigation districts of the State are being fought relentlessly by their enemies, and the fight has assumed many different aspects. Whether the railroad company may carry its case into the courts remains to be seen, but it is reasonable to predict the directors of the district will refuse to grant their petition. —Anaheim Gazette.

[It occurs to us that the railway companies should be the last to refuse to bear such assessment. Irrigation is, in many cases, not only

the key to the profit in their traffic, but fixes as well the value of their property as it does that of individuals. In most cases, it would be a better offer for the railway to pay double the regular assessment. We trust no issue will be made on this point. The public has had enough to try its patience with these corporations without adding this.—Eds. Press.]

## How Much Water is Needed?

E. S. Babcock, of Coronado, is authority for the following:

The experience of the Coronado Beach Co. for the past four years in watering some 40,000 trees, embracing orange, lemon, olive, figs, palm, pine, pepper, eucalyptus and other varieties, is that the amount used is so much smaller than what is usually considered necessary it is believed that if the facts as they actually exist are known a great deal of money can be saved to parties who use water, and a great deal of capital saved to those who invest in water plants for the purpose of irrigation.

It is popularly thought that one inch of water is necessary for the irrigation of from three to 20 acres of citrus fruits, according to the location. Our experience, and that of several others who have been placed in a position to know, rather leads to the idea that one inch of water properly applied through pipes or wooden flumes, without any waste, is sufficient to irrigate 60 acres of citrus fruits, and for the first three years sufficient for much more than this amount. It is believed that by far the greatest amount of water which is considered to equal one miner's inch is either not furnished or is wasted. We have been reliably informed that one district near Los Angeles which claims to give one inch of water to ten acres, has not in reality such a water supply, nor do they actually furnish more than one inch to every 40 acres. It is believed that if this element of waste can be saved, that the development of our country will be greatly hastened. It is further believed that the only true and proper way to sell water for irrigation or for any other purpose is by the 1000 gallons. Make the rate low per 1000 gallons, and get pay for all the water furnished, and do not ask the irrigator to pay for the water which, if impounded, never ran over his land, or ran through the irrigating ditch and was wasted. This may tend to cut down the revenue of irrigating companies just starting for the first four or five years, but that is the time parties planting trees need the most assistance, as their orchards are producing no revenue. After they come into bearing then the owners can afford to pay proportionately more than the rate per inch, provided they are saved an equal amount during the first five years of irrigation.

It is believed that within 15 miles of the coast if parties properly pipe their land so it can be irrigated without waste, water at 20 cents per 1,000 gallons is cheaper, for oranges, the first year of planting, than water at \$3.50 per acre, even though nothing is paid for the water right in the shape of bonus or increased price per acre to the land. It is believed that water at 15 cents per 1,000 gallons, for oranges, is cheaper than \$3.50 per acre the second year trees are planted. It is believed that water at 12 cents per 1,000 gallons, for oranges, is cheaper the third year of planting than water at \$3.50 per acre. And what may seem strange to those who have not investigated it, it is believed that water ranging from 15 cents down to probably seven cents per 1,000 gallons, for oranges, if applied as outlined, is cheaper under ordinary circumstances than water at \$3 per acre. One instance which will go to bear out this statement is: The Point Loma Land and Town company planted 20 acres of lemon trees last year which made a phenomenal growth, and yet they only received five buckets of water containing a little less than five gallons each, or 25 gallons per tree per annum, or say 2,500 gallons per year, which, at 20 cents per 1,000 gallons is 40 cents per acre.

J. C. Long, formerly general manager of the San Diego, Cuyamaca and Eastern Railway company, has been watering 400 orange trees, and had water sufficient for two horses, cow and household purposes, paying at the rate of 15 cents per 1,000 gallons, and his bill has at no time exceeded \$1 per month.

Dr. Cogswell, residing in the Cajon valley, states that he has watered from a windmill, that his orange trees are three years old—equalling any trees, and that he has not averaged more than 150 gallons per tree per year for the past three years. Allowing 80 trees per acre you have 12,000 gallons per acre, which at 25 cents per 1,000 gallons is only \$3 per acre; at 20 cents, \$2.40 per acre, and at 15 cents, \$1.80 per acre.

J. T. Gordon, of El Cajon valley, whose orange trees have been planted a little over two years, and from part of which he will gather a full carload of oranges this year, purchased water for the past two years at 10 cents per 1,000 gallons, and allowed the water to reach the trees by running over the surface, not having the orchard flumed or piped. His bill for the two seasons the trees have been irrigated under this arrangement was so small that the party furnishing objected to selling him more water at the rate he had been paying, 10 cents per 1,000 gallons, and has arranged to sell him water by the inch rather than continue the rate of 10 cents per 1,000 gallons.

These figures are not given for the purpose

of interfering with the revenue of irrigation of companies selling water by the inch, but to call to their attention as well as to your own, the enormous waste continually taking place, for which some one has to pay.

The writer is aware that the above statements will be probably assailed and ridiculed, but he believes it is to the interest of the community to know the facts as he understands them to exist, and if anyone who is in a position to make a thoroughly reliable estimate of the amount of water he has used on his trees will communicate with me that the facts may be gathered together we will satisfy the most incredulous. If the facts are proven to be as we think they are, it is evident that small communities can well afford to club together for irrigation purposes, spending what money they have to spare in preparing their land with wooden flume pipes for irrigation without waste, and can afford to make a contract with some one of their number to put up at the nearest locality a small steam pumping works which will do for their purposes for several years, until the demand will be such as to warrant gravity works being put in. Correspondence with all who can give data that will give light upon the subject earnestly solicited.

[We should like to have correspondence bearing upon Mr. Babcock's proposition. Eds. Press.]

## FRUIT MARKETING.

## Competition in Fruit Transportation.

The Daily Report of this city has the following interesting rumors concerning the overland shipment of California fruit:

The biggest combination of railways ever made in this State has just been effected for the purpose of breaking the fruit-carrying monopoly long enjoyed by the Southern Pacific, Union Pacific and Chicago & Northwestern people. Washington Porter, president of the Porter Bros. Fruit Company of Chicago, recently said, in an interview, that this was to be the greatest fruit year in the history of California. Railway men found the same thing out about that time and began to seek the business at once. The very first snag they ran into was the "California Fruit Line." This combination had had the monopoly of the California fruit-carrying trade for years, and with that advantage seemed to be securely ensconced in the position of master of the situation. Last year much of the fruit crop went to waste because of the scarcity of cars, and this year only meager arrangements had been made to handle the increased crop. In such circumstances, the Rio Grande, Santa Fe and Chicago, Milwaukee & St. Paul people got together and formulated a plan which breaks up the monopoly and gives the New combination the biggest part of the fruit-carrying business of the State.

The fruit mart in Chicago is alongside the river and the California Fruit line's auction shed is situated at the end of a spur of the Chicago & Northwestern, on South Water street, the other side of the river, approached by two tunnels and two bridges. The Chicago, Milwaukee & St. Paul has long had a siding to the neighborhood of the Chicago & Northwestern shed, but it was old and seldom used. This is now changed, and the siding has been relaid and a large auction shed, with twice the capacity of the Chicago & Northwestern shed, has been constructed. This gives the Chicago, Milwaukee & St. Paul a direct approach to the Chicago fruit market that is really more advantageous than the old California Fruit line's approach.

In the meantime the combination, which calls itself the Pacific Fast Fruit line, while securing this advantage, had its men out securing business and had given orders for the construction of new cars. These are completed. There are 200 fruit cars of the ordinary pattern—50 to be attached to passenger trains and 150 to freight trains. Besides, there have been constructed 350 fruit refrigerator cars of the latest improved pattern. The refrigerator cars of the California Fruit line are of the old style, while those of the Pacific Fruit line are of the pattern now generally used in the East. An ordinary fruit refrigerator car has the ice-chests on the top of the car, with pipes running down along the sides and bottom of the car to convey the cold thoroughly. The new refrigerator cars are different. They can be used either as a ventilated or refrigerator car, or as both at once. The ice-traps on the top of the car can be raised or lowered at the will of the engineer, and the space thus made or decreased is protected from the outside atmosphere entering too freely by wire gauze.

The agreement takes in all the San Joaquin and Sacramento valleys—in fact all of California north of Bakersfield. The Rio Grande Western people engineered the new combination, and the Santa Fe went into it with enthusiasm. It was a great stroke of work for them. The Santa Fe surrenders a long haul in order to effect its entrance into the fruit district of Chicago, for the Santa Fe, instead of sending the freight over its own line from Kansas City to Chicago, sends it over the Chicago, Milwaukee & St. Paul. The route is from California to Ogden, thence over the Rio Grande Western and the Atchison, Topeka & Santa Fe's Colorado Midland line to Denver. From Denver to Kansas City the haul is over



the Atchison, Topeka & Santa Fe main line, and at Kansas City the Chicago, Milwaukee & St. Paul takes hold, conveying the fruit freight thence direct to the market.

Fruit from points south of Bakersfield will go over the Santa Fe's Atlantic & Pacific line, by way of the Needles, as formerly. The southern part of the State is thus thoroughly covered, as is the north, and with this big combination working against the old monopoly, together with the Burlington & Rock Island people independently conducting a fight against the Northwestern; the Southern Pacific, Union Pacific Chicago & Northwestern fruit combination is placed completely on the defensive.

**A NEW FRUIT PACKAGE.**—A very ingenious and neatly arranged device for carrying fruit for Eastern shipment has been invented by T. S. Fitch of Alameda. With it fruit, like peaches, apricots, pears or oranges, can be kept firmly in place in the box, and, at the same time, each peach or pear is entirely by itself. The frame that accomplishes this is made of straw-board, eight frames, each holding six peaches, fitting in the ordinary sized peach box. In the bottom of each frame six holes are cut with a die, shaped like a \*, the length of the radiating points depending on the size of the fruit for which the frame is graded. The fruit—an orange or peach, for example—is pressed into each hole, the end cardboard points bending and binding so as to hold the fruit firmly in place.

By this method of gathering the crop from the tree and packing in the shipping box, but one handling is required; the picker takes his crate on his arm, mounts the stepladder and packs as fast as he picks, filling the crates ready for immediate covering, thus avoiding any exposure of the fruit to the hot sun, drying winds and gritty dust.—*Record-Union.*

FORESTRY.

Common Names for California Trees.

[Written for the Press by J. G. LEMMON]

There is much confusion in the use of common or vernacular names for our forest trees.

Our most familiar species have been given each a dozen or more names, while in many instances the same name is applied to a dozen or more species. These names conferred by the early settlers are often based upon some local feature or passing fancy, which, when the subject of them is better known, become totally inappropriate or viciously misleading. It is desirable to correct, if we may, this erratic treatment of our trees.

As long ago as 1878, when the distinguished botanists, Sir Joseph Hooker, Drs. Asa Gray, George Engelmann and C. C. Parry were making a hurried examination of the forests of the Northwest, the writer besought these great authorities to select from the host of names given locally, to our trees, one the most appropriate for each of our species, and to sanction its exclusive use thereafter.

One of the savants regarded the proposition as a good one; another promised that it should be done before they separated; a third thought they had not time then to perform so important a work, while the fourth declared that such a thing could never be accomplished. "The lumbermen, hunters and travelers," he said, "will always be giving names to objects however bad they may be in themselves, or misleading they might become."

Nothing came of my suggestion, and the confusion of names has increased apace, owing to the increased attention given to our trees by this visit of the Eastern scientists and by later publications.

In the extended articles of the Botanists' Reports, included in the 2d and 3d Biennial Reports of the California State Board of Forestry, an attempt is made while elaborating the great class of *Coniferae*, or cone-bearers, to bring order out of the confusion of names, by selecting the least objectionable name in common use; or, in a few instances, coining a new one for each of the kinds of trees, and then using this one habitually in subsequent discussions, hoping thereby to set the example of uniformity and precision.

This effort has been so much commended of late that I yield to an urgent request to publish abbreviated descriptions of our forest trees, just sufficient to bring out the characters upon which are based the vernacular names for the groups as well as species. The following descriptive list has been prepared for our largest family of trees—the pines. Later, it may be followed by a similar list of the rest of the cone bearing trees.

Descriptive List of Groups and Species of California Pines.

CLASS I. SMOOTH-CONED, SHORT LEAVED WHITE PINES.

Cones smooth, devoid of protuberances, prickles or hooks; seeds large, leaves in 5s. Wood usually lighter-colored, softer and less resinous than that of the other class. Four species in two groups of a pair each.

**GROUP 1. LONG CONED, LUMBER PINES.**—Cones long, narrow, cylindrical, 8 to 22 inches long and 1 to 4 inches thick, on long stems becoming pendent and breaking at maturity. Trees usually very large with grayish, finely

checked bark, large and long upper bearing limbs and light-green foliage.

No. 1—*Pinus Lambertiana*, Doug., "Great Sugar Pine."—Trees of the largest dimensions, 120 to 300, or, favorably situated, 250 to 300 feet high and 10 to 20 in diameter; scattered among other trees of the Coast and Sierra mountains at middle elevations. Cones very long, 10 to 22 inches long—the longest known.

No. 2—*Pinus monticola*, Doug., "Mountain Pine."—Smaller, lighter barked trees than the preceding in sub-alpine regions of the Sierra, but northward in Oregon and Washington found at lower elevations; cones narrow, 6 to 12 inches long; scales thin, weak, reflexed at maturity.

**GROUP 2. SHORT CONED, ALPINE PINES.**—Dwarfed, often depressed trees forming the upper fringes of the forests on the Rocky Mts. and the Sierra Nevada.

No. 3—*Pinus flexilis*, James., "Limb-twig Pine."—Small or depressed trees of the Rocky mountains and a few on the peaks of certain mountains in the Southern Sierra.

No. 4—*Pinus albicaulis*, Engel., "White-bark Pine."—Very white barked, often repressed trees forming the timber line on certain peaks of the Sierra. Cone globose, set close upon the short, stout, erect, white, annual stems.

CLASS II. ROUGH-CONED, DIVERSE-LEAVED, PITCH PINES.

Cones rough, armed with conspicuous knobs, prickles or hooks. Wood usually darker, harder, more resinous than that of the first class. Fourteen species in two sections of two groups each.

**SECTION A. SUB TERMINAL, MOSTLY DECIDUOUS-CONED PINES.**—Cones arising near the terminal leaf-bud, deciduous at maturity. Eight species in two very unequal groups.

**GROUP 3. COHERENT CONED, SHORT LEAVED, CLOSE-GRAINED PINES.**—Cones small, at maturity separating from the stem entirely. Three diverse pairs of species.

**1ST PAIR: OBLONG-CONED, PLUME PINES.**—Cones oblong, cylindrical, 3 to 5 inches long, pendent from the long, plume-like branchlets; leaves in 5s. Sub-alpine trees of the Rocky mountains, with a few trees only on the Sierra.

No. 5—*Pinus Balfouriana*, Jeff., "Fox-Tail Pine."—A few trees in sequestered nooks near Shasta and in the vicinity of Mt. Whitney. Cones with very small prickles.

No. 6—*Pinus aristata*, Engel., "Bristle-Cone Pine."—Similar but smaller trees on a few peaks of the Southern Sierra, but chiefly in Arizona, New Mexico and Colorado. Cones with long, conspicuous, bristle-like prickles.

**2ND PAIR. GLOBE-CONED, NUT PINES.**—Cones sub-globose  $\frac{1}{2}$  to 2 inches thick; scales few; very protuberant, without prickles, widely opening at maturity, loosely holding the large, delicious seeds.

No. 7—*Pinus monophylla*, Tor. and Frem., "Single-Leaf Pine."—Small, branching trees of the Great Basin, the eastern slopes of the Sierra, and the Tehachapi mountains; leaves solitary, terete, pungent-pointed; seeds, large, hard-shelled.

No. 8—*Pinus Parryana*, Engel., "Parry Pine."—Small trees in the peninsula of Lower California, with a few specimens extending into San Diego Co., California. Cones smaller than the preceding, with soft-shelled seeds; leaves in 5s.

**3D PAIR. THIMBLE-CONED, THIN-BARK PINES.**—Cone very small, 1 to 2 inches long, strongly declined; leaves in pairs. Trees with exceptionally thin bark and small cones.

No. 9—*Pinus contorta*, Dong., "Sorb Pine."—Very small, scrubby trees, on and near the northwest coast of California and Oregon, the very small cones often remaining on the trees for many years.

No. 10—*Pinus Murrayana*, Balf., "Tamarack Pine."—Tall, slender trees in wet, sub-alpine swamps of the Sierra and northward; also in the Rocky mountains. Cones ovate-conical,  $\frac{1}{2}$  to  $2\frac{1}{2}$  inches long. Trees usually discharging pitch or gum. Bark only one-fourth to one-half inch thick. Wood tough and light.

**GROUP 4. BROKEN-CONED, LUMBER PINES.**—Cones breaking away at maturity from the short stem by an irregular, transverse fracture within the base. They are of medium size, ovate-conical, 4 to 8 inches long, and half as broad at base; leaves in 3s, 5 to 8 inches long. Large trees, with thick, deeply fissured bark, and yielding lumber of great value. Trees widely distributed at middle altitudes.

No. 11—*Pinus ponderosa*, Dong., "Yellow Pine."—Trees of the largest size 200 to 300 feet in height; the largest often 250 to 300 feet high and 5 to 15 feet thick; bark in the typical form, yellowish or whitish, mostly very thick and deeply fissured into large plates; cones, conical-ovate, 2 to 5 inches long; male flowers, long and flexuous. The broken branchlets exhale an odor of turpentine.

Var. (a) *nigricans*, "Brown bark Pine."—Trees of medium size flourishing usually in milder situations than other forms and longer retaining their lower limbs; sap-wood usually of many layers; cones, largest of the species, 3 to 6 inches long.

Var. (b) *Benthaimona*, "Foothills Yellow Pine."—Medium-sized trees in the coast mountains and Western Sierra foothills, usually spire-shaped; cones, smaller and narrower than the preceding.

Var. (c) *brachyptera*, "Southern Yellow Pine."—Trees of Northern Arizona and New Mexico; cones, small, ovate, 2 to 4 inches long.

Var. (d) *scopularum*, "Rocky Mt. Yellow

Pine."—A small, spire-shaped tree of the Rocky Mts.; leaves often in pairs and remaining on the limbs several years.

No. 12—*Pinus Jeffreyi*, Mur., "Black Pine." Chiefly distinguished from the *ponderosa* species (with which it is often associated) by the trees affecting usually more elevated regions, and having darker, finer checked bark; the young branchlets and leaves are colored by a whitish powder; also when broken they exhale a pleasant, aromatic odor, not one of turpentine; cones, large, 6 to 10 inches long, ovate, with strong prickles.

Var. (a) *deflexa*, "Red-bark Pine."—This form constitutes one of the principal timber trees of the high Sierras, notably near Truckee. The bark is usually reddish-brown, thick, coarsely checked by many lines, especially toward the top of the tree; cones, large, 6 to 10 inches long.

Var. (b) *peninsularis*, "Peninsular Pine."—On the San Rafael mountains of Lower California; bark, grayish-brown, thick, deeply furrowed; cones, remarkably abundant and large, 6 to 8 inches long.

Var. (c) *ambigua*, "A tree of the lake region of Western Montana, "with purple cones and long glaucous foliage."

**SECTION B.—LATERAL, MOSTLY PERSISTENT-CONED, LONG-LEAVED PINES.**—Cones arising laterally, i. e. along the bearing stems, usually at some distance from the apex; mostly not falling at maturity, but persisting and, either becoming inclosed by the later layers of wood, or, the peduncle is stretched and at length broken by the enlargement of the tree, while the cone is often carried onward confined in the bark, leaving a channel behind it to the heart of the tree. Leaves large and long, 6 to 12 inches. Six species forming a pair of trios, or groups.

**GROUP 5. HEAVY, SPIKE CONED, LONG-LIMBED PINES.**—Cones of the heaviest, largest and hardest description on long, stout spreading peduncles, opening at maturity, but often remaining until forced off by the enlargement of the tree. Scales of the cone very large and thick, often terminating in long, stout, curved spines or hooks; seeds very large, black, thick-shelled. Leaves in 3s or 5s, very large and long, 8 to 14 inches. Picturesque trees remarkable for their usually divided trunk or very long limbs and for their heavy, spine-bearing cones.

No. 13—*Pinus Coulteri*, Don., "Big-Coned Pine."—Trees of medium size, with dark green, abundant three-leaved foliage; composed of the largest and longest pine leaves known, 8 to 14 inches long. Cones elongated, elliptical, of matchless size and weight, 15 to 20 inches long and often weighing five to eight pounds. The outer hooks are often two to four inches long, and curved like a nail grab. Trees of limited range in the Southern coast ranges and San Bernardino mountains.

No. 14—*Pinus Sabiniana*, Dong., "Gray-Leaf Pine."—Usually small, round-headed trees of the hot, sloping foot hills with divided trunks, and scant foliage of grayish color, all but the leaves of the season dropping downward, or early falling away. Cones broadly ovate, weighing 2 to 5 pounds, armed with stout, short hooks; seeds very large  $\frac{1}{2}$  to  $\frac{3}{4}$  inch long, with a thick, narrow wing. Leaves in 3s.

No. 15—*Pinus Torreyana*, Parry, "Torrey Pine."—A few small trees not to exceed a few hundred in all; buffeted, often prostrated by the ocean winds at Del Mar, San Diego Co., with a few on Santa Rosa Island. Leaves in 5s, very large and long, 8 to 12 inches. Cones broadly ovate, 4 to 6 inches long, weighing 1 to 2 pounds, and armed with short, stout spines.

**GROUP 6. CLOSE-CONED, SLENDER PINES.**—Cones in verticils or clusters, usually strongly declined, and gibbous; usually long persistent, and remaining long-closed, holding the seed. Small trees mostly crowded into dense groves, hence tall and slender; maturing fruit when quite young. Leaves in 3s or 2s.

No. 16—*Pinus insignis*, Dong., "Monterey Pine."—Beautiful trees on Point Pinos near Monterey, and abundant in cultivation. Leaves in threes.

Var. (a) *radiata* "Spreading-Cone Pines."—The large-coned form near Monterey hay.

Var. (b) *levigata*, "Nearly smooth cone Pine."—Cone small, nearly smooth. Trees on the outskirts of the forest farthest from the ocean.

No. 17—*Pinus tuberculata*, Gordon, "Knob-Coned Pine."—Usually small, early bearing, slender trees on sunny slopes of the Northern Sierra, and rarely on the coast ranges. Cones strongly declined, narrow and pointed, 3 to 7 inches long. Remaining on the trees and unopened for an indefinite number of years. Leaves in 3s.

No. 18—*Pinus Muricata*, Dcn., "Prickle-Coned Pine."—Small slender trees usually in swampy places along a limited portion of the coast range, mostly northward from San Francisco. Cones clustered, ovate, 2 to 3 inches long with small, sharp, persistent prickles. The cones have been known to remain unopened for 20 to 30 years, then to release good seeds. Leaves in pairs, usually long, 3 to 6 inches.

**AN IMMENSE MOUNTAIN BRIDGE.**—A bridge has recently been completed on a Peruvian Central Railway which spans a chasm with almost vertical sides and 235 feet in width. The bridge is of wrought iron and of the cantilever type, supported on two iron towers. Its total length is 575 feet, its suspended span being 105 feet long.

SHEEP AND WOOL.

Notable Decrease in the Wool Product.

The quantity of wool produced this year must be less than the yield last year, if the agricultural report of the number of sheep in the country January 1st is correct. That report indicated a loss of 904,000 sheep (and 11,000,000 pounds of wool), but this loss was mainly in a very few States. If only five States in which the change was greatest—Texas and Missouri, California, Nevada and Oregon—he omitted from the calculation, the yield in the remaining States would show a small increase, gains being rather more than losses.

The estimates of the yield per sheep which have been most commonly accepted in the trade are employed by Mr. Joseph E. Truitt in his statements for the Philadelphia Textile Association. These statements have been continued for several years, with general approval by persons having extensive knowledge and a large interest in the ascertainment of reliable data. Taking the same rate of yield per sheep for the current year, and the same number of sheep reported for January, 1891, by the Agricultural Department, the quantities of wool given in the first column are obtained, and Mr. Truitt's estimate for 1890 is given in the second:

YIELD OF WOOL BY STATES.		
	Lbs. 1891.	Lbs. 1890.
Maine.....	3,286,020	3,253,488
New Hampshire.....	1,090,693	1,158,944
Vermont.....	2,455,743	2,534,754
Massachusetts.....	335,790	339,180
Rhode Island.....	122,598	121,386
Connecticut.....	229,120	233,795
New York.....	8,361,998	9,290,556
New Jersey.....	500,375	515,350
Pennsylvania.....	6,237,012	5,870,012
Eastern States.....		23,115,995
Ohio.....	20,709,485	19,717,945
Michigan.....	14,711,093	14,565,466
Indiana.....	6,326,100	7,029,000
Illinois.....	4,025,958	4,130,322
Wisconsin.....	5,339,460	4,854,454
Central States.....		50,296,737
Delaware.....	135,102	133,764
Maryland.....	627,352	615,052
Virginia.....	2,222,815	2,222,815
West Virginia.....	2,594,135	2,543,270
North Carolina.....	1,991,130	2,074,095
South Carolina.....	557,275	510,155
Georgia.....	1,532,063	1,647,384
Florida.....	537,275	551,755
Alabama.....	1,099,052	1,144,952
Mississippi.....	1,404,070	1,440,088
Louisiana.....	569,655	675,410
Tennessee.....	3,066,708	3,066,708
Kentucky.....	4,594,474	4,835,863
Southern States.....		21,862,116
Missouri.....	5,391,900	7,189,200
Arkansas.....	1,896,388	1,896,388
Texas.....	24,951,360	28,515,480
Southwest.....		37,591,423
Minnesota.....	1,083,894	1,064,250
Iowa.....	2,712,150	2,544,966
Kansas.....	3,129,553	3,068,191
Nebraska.....	1,612,282	1,675,800
Dakota.....	1,920,233	1,644,303
Northwest.....		11,427,440
Colorado.....	12,736,933	12,487,237
Wyoming.....	7,833,770	7,121,611
Montana.....	14,685,359	13,928,915
Idaho.....	3,513,846	3,411,499
Utah.....	14,301,300	14,301,300
Arizona.....	4,749,44	5,577,232
New Mexico.....	12,494,652	12,494,652
Mountain region.....		69,293,738
Nevada.....	3,532,970	4,006,902
California.....	24,130,015	26,228,280
Oregon.....	17,622,313	20,508,810
Washington.....	4,038,360	4,038,360
Pacific States.....		55,682,352
RECAPITULATION.		
East of Mississippi.....	94,829,241	94,774,898
Northwest and mountain.....	81,733,166	80,736,166
Southwest and Pacific.....	80,753,306	83,273,780
Total clip.....	257,315,713	258,744,856
Pulled wool.....	40,700,000	40,700,000
Total yield.....	298,015,713	299,444,856

Further analysis of the figures shows that the States east of Pennsylvania generally lost, including a loss of over 900,000 pounds in New York, but Pennsylvania gained 633,000. In the Eastern section, as a whole, the loss was therefore not significant; but between the Pennsylvania border and the Mississippi, five Northern States gained in wool production more than 1,000,000 pounds. The five prairie States beyond them made no change worth notice, but again in the mountain region four States and three Territories gained over 1,000,000 pounds. Thus the older and the newer regions of fine fleece-growing, west of New York, increased in yield, while east, south and west of these regions there were losses. Delaware, Maryland and West Virginia showed slight gains, but most of the Southern States slight losses.

To the figures obtained from the number of sheep, Mr. Truitt and the Agricultural Department both added about 40,700,000 pounds as the probable yield of pulled wool from sheep sent to market lost by disease or disaster. There is no means of fixing the quantity thus obtained accurately, but there seems much reason to believe that it is somewhat larger than usual this year because of the losses of sheep in certain States. It may be expected that the supply of American wool will at all events not fall much short of 300,000,000 pounds this year.



## PATRONS OF HUSBANDRY.

## Our Grange Edition.

The Grange news of most general interest is given through all editions of our paper on this page. Several supplemental pages, devoted to Grange interests, are added in our Grange edition, which any subscriber can receive in lieu of the regular edition WITHOUT EXTRA COST, by addressing the publishers.

## The Master's Desk.

E. W. DAVIS, W. M. S. G. OF CALIFORNIA.

From all sections of the Union come the welcome tidings, "The Grange is growing." But why should not the Grange grow? An Order that constantly tries to better the condition of humanity is entitled to prosper. An Order that eschews all selfishness, all partisanship, all denominationalism, all attempt to punish even those who speak and write evil of it, is sure to prosper. The Grange knows what is right, what is fair, what is just, and knowing these things, it dares to maintain them. Hence the Grange grows—not in numbers alone, but in influence and in power—and the Order of Patrons of Husbandry will flourish while the grass grows, while the sun shines, while honest men and

with the silver thread of some one's friendship (to be found daily), keep them in the vase of your truest love (which ought to be constant) till the last flower fades (which in memory will never be). Thus you will have found a beautiful and pleasing companionship.

There will be more farmers in the next session of the Legislature than have been in any one session since this State was admitted into the sisterhood. Remember this prediction! It will not surprise some people if California sends two or three farmers to Congress in 1892. Why not? Tell us why the farmer is not the coming man?

A copy of the Journal of Proceedings of the Seventeenth Annual Session of the Colorado State Grange is at hand, thanks to Bro. J. A. Newcomb, Worthy Sec'y. It contains much interesting and instructive reading.

The pupil in school is frequently compelled to "review" the work just done. How about the older pupils? Do they "review" the work of the past now and then, just enough to get all the good out of the lessons which experience teaches? We don't ask you to thresh the old straw too often, but we do believe in getting

## Hon. Reuben P. Boise.

Hon. Reuben P. Boise has arrived at the mellow age of 81 years, honored by all for the many traits of character which create respect from all classes.

He was born in the year 1819 at Blandford, Mass. At 24 years of age he graduated from William's College and moved to Missouri, where he taught school for two years, when he returned to his native State and read law, and three years later was admitted to practice. In 1851 he emigrated to Oregon, settling at Portland, where he followed his chosen profession. In 1852 he was elected prosecuting attorney for the first and second districts. From that time on his life was a busy one, being elected at various times to offices of trust and position. In 1880 he was elected Judge of the Third Judicial District, which office he filled for over eight years. As a farmer he takes equally as high rank as that he secured in the other walks of life. His large ranch in Polk county attests this fact. For four successive terms he served as Master of the Oregon State Grange. It is perhaps not claiming too much when we say that no man in the Order has done more for its advancement. Many of the laws of Oregon in

able. A select literary program will be given; also addresses on leading questions of the day. Everybody invited to bring their baskets, their families, their sisters, their cousins and aunts, and meet their neighbors and friends in one day of recreation at least out of the year. All farmers are especially invited.

A. P. ROACHE.

## Pioneer and Grange Picnic.

The Pioneers of Washington, Eden, and Murray townships of Alameda county will join with Eden, Temescal, San Jose, and Danville Granges in a grand picnic, at Riverside Grove, at Alvarado Station on the narrow gauge railroad, Saturday, May 23d. The Pioneers of Alameda and Contra Costa counties, and all farmers and respectable citizens who wish to join in the rural festival, are invited to be present. A good band of music will be in attendance. Brief speeches will be made by able speakers, under the auspices of the Grange. Dancing, children's games and foot-racing will be conducted by the committee. Probably excursion tickets can be had from San Francisco, Oakland, San Jose, and way stations. Further



HON. REUBEN H. BOISE, P. M. OREGON STATE GRANGE.



H. E. HAYES, W. M. OREGON STATE GRANGE.

virtuous women till the soil, and while agriculture is recognized as an honorable and necessary calling of man.

As soon as our next census report is complete, we will know how many of the 63,000,000 people who live in the United States are farmers. In the meantime, it is safe to ask: What per cent of our public office-holders are farmers? What direct influence in political affairs does the farmer exercise? How long are these conditions to exist? Will the farmers stand together in matters that are common to them? How may we, as taxpayers and loyal citizens, best work for the good of our common country? These are thoughts that every person should consider very carefully. Don't allow some one else to think for you on these great questions. Solve them for yourself. Be sure you are right, then act.

Did you plant a tree, flower or vine this spring? If so, did it grow? Will you try to sit beneath its shade and eat the fruit thereof?

The sluggard is told to go to the ant for lessons of industry and wisdom. But really do you think a sluggard would profit by any teaching? What is your idea of a sluggard? May you deal most charitably with the sluggard, for surely he deserves the charity of the world. But truly, those who think themselves most industrious and most economic may profit by heeding the advice given to the sluggard.

Gather a bouquet of California's choicest flowers (now in full bloom), bind them together

the most of the grain out of the straw. Let us "review" our lives now and then. The soldier has to pass in "review" before his superior, and the fact that he has to do this causes him to polish his gun and all his accoutrements, as well as to put himself in presentable shape. The "review" has its lessons for all. Let's review the situation!

## Join the Grange.

Every farmer should join the Grange. It does not matter that he is a member of the League or the Alliance, he should be also a member of the Grange. This latter organization he needs for himself, for his wife and for his children as they approach maturity. Its educational value would be hard to overestimate. Its training is just what every farmer and farmer's son needs to fit him for active and efficient work among his fellows, and it is valuable also to the other sex in the same direction. One of its most valued features is the development of the social qualities and the field for social pleasures that it opens up to the isolated farmer's wife and family. We urge the Grange on all our readers. If you have no Grange in your neighborhood, go to work and organize one. You will never regret it; on the contrary, you will bless the day you entered its hospitable door.

PENCIL-SHARPENING.—We heard some loud wood and metal carving going on somewhere, and now we have it located in Tulare, viz.: I am sharpening my pencil for something to occupy valuable space in your paper by-and-by, for which forgive. Yours fraternally, J. W. M.

the interest of farmers were drawn up by him. In the National Grange his influence has at all times been recognized by his contemporaries.

## H. E. Hayes, W. M.

Probably no person exemplifies more fully the typical American than does Bro. H. E. Hayes. Worthy Master of Oregon State Grange. In 1849, at the early age of 17 years, he sought his fortunes in the gold mines of California. Two years later, he moved to Oregon, settling in the Willamette valley, where he has continued to live. In 1853, he left for his native State, Connecticut, where he married Miss S. L. Woodruff. After his marriage, he returned with his wife to Oregon. He has always been foremost in advancing the interest of this country, particularly of his own favored State. As a Granger, he has been keenly alive to the best interests of the Order, and as Lecturer of Oregon State Grange, his energy and activity of mind found full scope. During his six years as Lecturer, he canvassed the State in all directions, and succeeded in organizing 28 Granges, besides reorganizing 24. With his election in 1888 Worthy Master of the Oregon State Grange, he carried into the office the same spirit of progressiveness that characterized him in his other official positions.

## Watsonville Grange.

Watsonville Grange will hold its annual basket picnic, Saturday, June 6th, at Aptos. Music, singing, dancing and various other amusements will render the occasion pleasur-

information can be had of F. B. Granger, Alvarado, Cal., or A. T. Dawsey, Sec'y State Grange of Cal., 220 Market St., S. F. San Jose Grange is expected to act on this matter at its next meeting.

## Picnic Arrangements.

San Jose Grange has voted to join the Granges and Pioneers of Alameda and Contra Costa counties in a grand picnic at Alvarado, Saturday, May 23d. The Grangers will go and return by the regular narrow-gauge trains. Regular fare for round trip, \$2. If 50 or more purchase Grange excursion tickets at the San Jose or Santa Clara ticket offices, or of Cyrus Jones or other Grangers on the train, the rate will likely be from \$1.50 to \$1. Round-trip excursion ticket from S. F. or Oakland at the railroad ticket offices, or on the 8:15 A. M. train, 75 cents.

Major E. A. Sherman of the Mexican War veterans will deliver a patriotic opening speech. Hon. Philo Hersey of Santa Clara will make a Grange address. Dr. A. E. Mintie and wife will give a vocal duet, with instrumental accompaniment. Other brief exercises, with foot-racing, games, music and dancing will complete the program for a first pioneer and rural festival.

Returning trains leave Alvarado, P. M., for S. F. at 5:08; for San Jose, 3:52 and 5:55.

WATSONVILLE GRANGE will hold a special meeting at its hall on May 30th, for the purpose of observing memorial services.



FARMERS' ALLIANCE.

Alliance Edition.

Subscribers can receive our FARMERS' ALLIANCE EDITION WITHOUT EXTRA COST, by applying for the same. That edition contains several supplemental pages of Alliance matter, in addition to that which appears on this page through all editions.

The Secretary's Desk.

(C. W. PEDLAR, Gilroy, Sec'y Cal. State F. A. & I. U.)

To All Organizers.

Please be more careful of your rituals, and always instruct a newly organized Alliance to guard them sacredly. When not in use the President should always place them under lock and key. Frequent requests come to this office for a half dozen or a dozen copies to distribute among the members. Evidently they have not been properly instructed or they would not make such requests. No Alliance is entitled to have more than four rituals at one time, and these should be supplied from this office. If an organization is promptly and fully reported the supplies will reach the Secretary in time for the next meeting.

The Alliance Home must be sacredly guarded.

"We have 24 applicants for initiation at our next meeting, which will more than double our membership," writes D. L. Smith, the wide awake Secretary of Westside Alliance Stanislaus Co.

Bro. G. S. Moore, Secretary of Danville Alliance writes: "We are having initiations at nearly every meeting." And so the work goes on, and by no means the least part of it is the work of education. At no period in the world's history have the people been educated on any subject so rapidly and thoroughly as they are being to-day in the demands and principles of the Alliance which shall in the near future make this indeed "a government of the people, for the people and by the people," and usher in anew the glad tidings of "On earth peace, and good will to man."

The wisdom of the Supreme Council in devoting this year to the work of education is everywhere apparent even now, and will be more so, when the mighty host of determined souls shall come together in February of 1892, and with one mind and one voice proclaim: "The people of this fair land shall once more be free!"

C. W. PEDLAR, State Sec'y.

Let All Strike Together.

Address by William Pile, President of Roberts Island Farmers' Alliance.

Mr. Chairman, Ladies and Gentlemen: You are aware that there is a great feeling of discontent among the farmers of the United States, and there are thousands who do not know the cause, and there are thousands who do not complain, yet they are moved by a feeling that there is something wrong. They are beginning to feel that they have not had a fair chance in the struggle for existence.

You have seen within your own time great cities, fine mansions and grand structures built, thereby adding national wealth to the world. You see fine mansions and the surroundings of all the appliances pertaining to the comforts of life, and you ask yourself who are the owners of all this comfort. Is it those who labor in the field all their lives until their poor, decrepit hands are unable to perform the task before them, or is it those who can flip a jack from the bottom of a deck of cards or can figure the most difficult problem in interest, or who can speculate in wheat, thereby putting the price up or down? I ask you these questions and you can answer for yourselves.

The Injustice of Civilization

Is founded in the fact that the burdens are not equally distributed, nor benefits justly appropriated, and thus the injustice of modern civilization stands clearly revealed. The farmer and the laboring man to-day should share proportionately with the capitalist in the benefits derived from modern invention in the application of the forces of nature to the means of producing wealth. The monopoly of transportation and the distribution of the product of industry are some of the chief causes of injustice.

Now, farmers and laborers, we have bowed our heads long enough, and allowed trusts and capital to control the making of laws and the prices of our products. We do not intend to withdraw from this struggle. We are going to stand by our rights, and (as Gen. Jackson once said) "By the Eternal, we are going to have them."

Since having my attention drawn to an organization called the Farmers' Alliance, I have become impressed with its workings and purposes, and I feel justified in saying that I think it is a move in the right direction.

Capitalists, Speculators and Lawyers

Who are opposed to our organization say that we have taken too big a contract; that the farmers and working people have not the brains to carry on such a gigantic undertaking.

Oh, indeed! they are very willing for us to

stand behind the plow, or at the throttle, and guide the affairs of manual labor; but the affairs of State—that is a different thing. Not but they treat us with civility and respect, but they have become so accustomed to look down on those who toil for a living, no wonder they are surprised at our big undertaking. The more we look into the matter, the more injustice we discover.

I say it is high time the road should have a turn, and the footprints of the millionaire be turned back until they meet the footprints of the toiling masses.

I believe when the mud sills of the nation are once opened, and the light shines through, we can then demand equal justice and square dealing all around.

It is not possible for me to explain how this is to come about, but it is going to come, slow but sure, with power enough to carry it around the whole circumference of the earth.

Brothers, and those that have joined themselves in the interests of reform, I do implore you all to strike together, that we may be able to combat any and all obnoxious laws in favor of capital. "Let our motto be: Justice, Equity, Honesty, Charity and Brotherly Love for the whole nation."

A Cannon of Good Metal.

The Stanford Loan Bill, Etc.

Although the following accidentally escaped our publication at the time, it is none the less interesting and potent at this time. The resolutions of several Alliances, published weeks ago in the RURAL, supporting our able President, no doubt had partly reference to this matter.

President Cannon Heard From.

VENTURA CAL., April 8, '91.

Ed. San Miguel Messenger:—I see in your paper of April 3d another effusion of venom against the State President, coming this time from Oak Grove Alliance, in what purports to be a resolution by that body. I am loth to believe that the members endorsed that attack upon me. I had intended to take no notice of anything that might be said against me about the Stanford Land Loan Bill, saving my ammunition for the common enemy. But the man who wrote that article displays such dense ignorance that, for the good of the cause, I deem it absolutely necessary to set myself right before my brethren. When I denounced the land loan bill, I had reference entirely to what was known as the Stanford bill. I had a copy of it, and I honestly could not indorse it. I did not stop to give my reasons, but they were good and sufficient for me, and my position has since been fully vindicated by the Supreme Legislative Council, as well as by the National organ and the National Executive Board, and that there be no mistake about the bill we are talking about, I will quote from the resolution. The writer says: "Some argue that the bill cannot benefit the poor man, because the rich Mr. Stanford proposed it. Now, people who think or talk that way have, as a rule, been vaccinated for the old parties, but it never took either, the virus or the subject's head was too thin." Now, let us see whose "head is thin" on this bill? The *National Economist* of Feb. 21, 1891, first page, says: "There are now two bills before Congress relative to such loans, one introduced by Representative Featherston, the other by Senator Stanford. While the bill of Mr. Featherston is not perfect, it is not open to the many serious objections that are found in the measure proposed by Mr. Stanford. 'These objections are of such a character as to preclude the idea of ever being adopted or advocated by the Alliance. It neither meets the expressed nor implied demands of the Alliance, but runs counter to both.' Farther on, in the same article, he says: 'The general tenor of this bill seems to favor large holders of wild lands for speculation.' The railroads own such lands, and Stanford knows what he is doing. But a little further on the editor says: 'This proposed bill of Mr. Stanford's is a sidetrack for the honest intentions of the Alliance, and if permitted to become a law in its present shape will benefit the land speculators at the expense of the farmer.' Thank God we have such men on guard, men who cannot be deceived by an enemy in the disguise of a friend. Now, in conclusion, I will say that so long as I am at the head of the Order in this State, I will give warning of the approach of the enemy to the rank and file, and if they surrender I will go down with them with my face to the foe and the gun empty, and I will further say that I am in full accord with the National Legislative Council, of which body I am a member, and when I surrender the great trust committed to my hands, next October, I will feel that I have done my duty, if I have tramped on somebody's toes. Fraternally yours,

MARION CANNON,  
State President.

AN Iowa farmer writes as follows: The line is already drawn in Wall street that is separating the people of this nation. Now let us blot out that line at the ballot-box. "Equal rights to all and special privileges to none" must be our motto. But they say that the Alliance wants class legislation. I say it is false, let him who will utter it. All that we desire is equal legislation. If the banker is to get his money at one per cent without any security, we want the same rights, and are willing to give good, non-perishable security and higher interest. There comes in the bowl of "paternal government." What in the name of heaven is a government if it is not paternal? Every winter do not those we send to Washington legislate for the people, or try to and fail? The government must look after the people as well as parents after their children. It is the same principle only on a larger scale.

SECRETARY PEDLAR's column is improving, and should be read by all. This week it especially contains important matter.

From Our Nebraska Farm Boy.

MESSRS. EDITORS:—Arriving in Nevada county, I came directly to this lovely valley of Penn, lovely because of its wooded hills, beautiful scenery and fertile valleys. If I were to express my exact feelings I would say everything seems ancient and inspiring and sublime. Having been used to the life of the plains I felt cooped up between the hills that stood on either side covered with tall growths of pine and oak interspersed with the chaparral and manzanita shrubs.

Alighting from the stage that brought me from Grass Valley, I shouldered my grip and started up the road that led to the Horton Ranch. Arriving at the spot I knocked at the door of the cabin where my friend dwells in single blessedness, but no answer came save that of the small feline anxiously waiting the return of its mother. I entered, laid aside my grip, hung up my coat and after a short stroll about the ranch in search of the keeper, returned.

After looking over the papers that laid on the news-stand, I came across the last copy of the RURAL PRESS, and while happily engaged in reading the latest news, my friend returned to the house. I gave him a very warm reception, and in less than 30 minutes we were perfectly well acquainted. By the noon hour dinner was served, and I ate more than noon than I had any time previous for at least a week. Dinner over, we took a

Drive Around Through Penn Valley.

Announcing a meeting for the following evening. My ride through the country that afternoon was one of the most enjoyable trips that I have made since I left Summerland. On the quiet, wooded roads in the sunny afternoons where you get the cool, sweet breezes wafted from the hills and forests, away from all tumult, contentions and strife, with nothing in all the world but the soft whispers of nature, save now and then the low tinkle of a bell from some neighboring herd or flock to remind you that there is nothing in all the world beside, one is left to the calm, deep serenity of thought. I am afraid my friend considered that my zeal for the Alliance had abated, but it was only for a time. The next day we made another tour through the country, making two other appointments. That evening I organized the

Indian Springs Alliance

In the Penn Valley district with 13 charter members, all tried and true abettors of reform. The Alliance showed its respect to the idea of universal suffrage by selecting Mrs. M. B. Chubob as president—a lady whose zeal and ability make her the fit leader of a strong, progressive Alliance. The other officers of the Alliance are: V. P., T. J. Robinson; Sec., F. A. Horton; Treas., Mrs. T. J. Robinson; Chap., Mrs. Annie Melby; Lect., M. B. Chubob.

The following evening, accompanied by Bro. Horton, I organized an Alliance of 11 male members at Pleasant Valley. The following were the officers elected: Pres., Jas. R. Vineyard; V. P., Theodore Schwartz; Sec., Thos. Lake; Treas., Wm. Davy; Chap., N. A. Hartung; Lect., F. V. Miller.

The most intense interest was aroused in both meetings, and I predict for Indian Springs and Pleasant Valley Alliances a healthy and prosperous growth.

To-night, accompanied by Bro. Horton, I held a meeting at Rough and Ready.

To-morrow night, Bro. Robinson will accompany me to Markwell district and from there to Wheatland on Saturday morning. Inside of ten days I expect to report Nevada county organized with six or seven good, strong Alliances.

It has been threatening rain for several days, but looks now very much as though it were going to clear up. With the benediction, "God speed the Alliance," I will close. Fraternally yours, in the brotherhood of industrial workers,

BURDETTE CORNELL.

THE *Progressive Farmer* thinks that the Alliance men should address themselves afresh to the work of educating the people upon the great questions before the country. But there should be no spirit of intolerance manifested in this work of educating the people. There are good and true men in the Alliance, who have opinions of their own, and are honestly desirous of throwing all the light possible upon public questions, with a view to getting at the exact truth. Let no one read these men out of the Alliance because they dare to think for themselves. This Alliance movement has won its present position mainly by encouraging free discussion of public questions. Whenever the time comes that the Alliance shall throw the weight of its influence against the freedom of discussion, the end of its influence for good will not be distant. The free people of this country will not allow the voice of discussion to be stifled, we may be sure.

SONOMA CO. ALLIANCE WILL CELEBRATE.—Bro. C. A. Perry, Sec'y Sonoma Co. Alliance, writes from Santa Rosa, May 15: A committee of one from each Sub Alliance in the county will meet with a committee of five from the County Alliance, at Sebastopol, on Friday, May 22d, at 10 o'clock A. M., to make arrangements for a Fourth of July celebration, which I will report for the RURAL PRESS.

Sectionalism.

In all the broad field of our noble endeavor as an Order, there is no purpose grander in design, more patriotic in conception, or more beneficent in its possible results to the whole country and to posterity than the one in which we declare to the world that henceforth there shall be no sectional lines across Alliance territory. Falling in all else we may undertake as an organization, if we shall accomplish only a restoration of fraternity and unity, and obliterate the unnatural estrangement which has unfortunately so long divided the people of this country, the Alliance will have won for itself immortal glory and honor. In the spirit of a broad and liberal patriotism, it recognizes but one flag and one country. Confronted by a common danger—afflicted by a common evil—impelled by a common hope, the people of Kansas and Virginia, of Pennsylvania and Texas, of Michigan and South Carolina, make common cause in a common interest. It recognizes the important truth, that the evils which oppress the agricultural interests of the country are national in their character and that they cannot be corrected by sectional efforts or sectional remedies. It recognizes the fact that the war ended in 1865—that chattel slavery is gone, and that the prejudices and divisions, born of its existence, should go with it.

Community of interests between the great States of the middle, southern and western sections is the mighty natural force which will draw them together in solid array in the impending struggle between the people and plutocratic power.

The lines of sectionalism have been out in twain. The Alliance has planted its banner, on which is inscribed in characters of golden light—"Equal rights to all and special favors to none"—from the State of New York on the east to the Golden Gates of the Pacific on the west; from the Gulf on the south to the Great Lakes on the north, embracing within its territory the great staple crops of the country—the center of population and the center of political power.

We cannot fail to see the opportunity of the hour, and recognizing that opportunity we must not forget that it carries with it corresponding responsibilities. The opportunity is for the great conservative, law-abiding, patriotic masses to assert and establish a perpetual union between the people. The sequent obligation is that these great masses must discourage, discountenance and discard from their councils the wicked demagogical agitators, who, for the last 25 years, have sought to foster discord and dissensions that they themselves might thrive. Ordinarily they are the men—North and South—who were "invisible in war and have become invincible in peace.—Sutter Co. Farmer.

The Alliance Demands.

Under the above caption the Tallahassee Alliance says that in this the hour of threatened disaster, the weak and timid will fall victims to demoralization. "If we can't get all, better take a part of the loaf," they will reason and be disposed to so act. Against such a course we do now strenuously protest. If our cause is right, fight till death for its complete triumph.

We cannot compromise with the "money power." The fight is on, and there is no half way ground. It must be triumphant victory or an ignominious defeat. There can be no retreat except in submission and industrial slavery.

The masses of the people have temporized enough. They have been betrayed, robbed and plundered long enough. Conciliation means cowardice, and compromise means defeat. The people want no palliatives and nursery antidotes; nor do they want any milk and water leaders, men that are neither "fish, flesh or good herring." They want no half remedies, no mandarin reforms which patches but does not mend, no sugar-coated remedies which leaves the disease hidden but not cured.

But what they want and what they demand is a substantial reversal and a complete overthrow of the present tendency of our government to a centralized plutocracy and a return to that system of government "by the people and for the people."

The people demand justice and not charity; they ask not for alms but for their own. The remedy is a plain one, and is at hand when the people awake from a false and fatal repose and realize the dangers that confront them. Mistaken security is the open door to ruin.

If the people would be free, they cannot tamper with freedom nor toy with popular delusions as they are now doing over these painted homestead pre-emptions. When they rise to a full sense of the imminent danger and realize the iniquitous methods of the national banks, when they absolutely refuse to support candidates who stand in with these banks, and are pledged to represent their interests rather than the interests of the people, when by the power of the silent ballot, they crush out the life blood of political imperialism and make the industry of the nation the nation's business, then will they enjoy the inheritance bequeathed unto them through rivers of blood and mountains of treasure.





Jerry.

The Old Milkman.

(Written for the RURAL PRESS by LUPAH.)

Full forty years this silent man  
Had stood beside the pasture bars  
Each day, before the twilight came,  
With evening birds, and skies aflame,  
And clouds coquetting with the stars.

He thought—we know not what he thought,  
His quiet features gave no sign;  
The same to him seemed light and dark;  
His life seemed bounded by the mark,  
At morn and night, of half-past nine.

For that was "quitting time," you see,  
When, one by one, the cows had swung,  
With easy indolence, across  
The slanted bars, while curly Floss,  
The dainty poodle, yelped and sprung.

With frantic, unregarded haste,  
To be both first and last to pass;  
Then watched the sidewise moving jaws  
The drooping eyelids, and the pause  
That seemed a dream of dewy grass.

Within the shining pails, the milk,  
In ringing streams, beat cheerful time,  
Then rose in mounds of snowy foam  
As Jerry whistled "Home, Sweet Home,"  
And farm-yard bells rang drowsy chime.

Old Muley turned her head to draw  
Her rough tongue o'er his homely sleeve;  
The wildest bovine matron there  
Straightway grew gentle in his care,  
And stood or followed at his leave.

An uncrowned king this man has reigned,  
Since first he came in manhood's prime;  
And milked and milked seemed content,  
As generations came and went,  
For half-past nine was "quitting time."

And now within the quiet room  
He faintly hears the farm-yard chime,  
Awakens from a fitful sleep,  
And feels the night chill o'er him creep,  
Then murmurs "it is milking time."

They tell him of another world,  
Hoping his interest to arouse,  
Of flowery fields, a life of ease,  
Untroubled by such cares as these—  
He says, "Who then will milk the cows."

As one by one the stairway clock  
Tells off the hours, his life burns lower;  
Still life and duty seem entwined.  
The half-hour strikes—"Well, never mind,  
'Tis quitting time"—he breathes no more.

Yet, as we softly question space,  
We hear the tinkling farm-yard chime.  
His ears are closed, his lips are dumb,  
But, "Occupy until I come,"  
May mean to work till "quitting time."

## Unexplained.

## A Ghost Story.

"All ghost stories may be explained," said Mrs. Marchmont, smiling rather scornfully, and addressing a large circle of friends and neighbors who, one evening, were seated round her hospitable hearth.

"Ah! you think so? Pardon me, if I cannot agree with you," said Mr. Henniker, a well-known Dublin barrister, of burly frame and jovial countenance, famed for his wit and flow of anecdote.

The ladies of the party uttered exclamations in various keys, while the men looked attentive and interested. All that Mr. Henniker pleased to say was wont to command attention, in Dublin at least.

"So you think all ghost stories may be explained? What would Mrs. Marchmont say to our old woman in the black bonnet, Angela?" And the barrister turned to his quiet little wife who rarely opened her lips. She was eager enough now.

"I wish I could quite forget that old woman, John, dear," she said, with a shiver.

"Won't you tell us, dear Mrs. Henniker? Please—please do!" cried the ladies in chorus.

"Nay; John must tell that tale," said the wife, shrinking into herself as it were.

No one knew how it happened that the conversation had turned upon mesmerism, spiritualism and other themes trenching upon the supernatural. Perhaps the season, suggesting old-fashioned tales, had something to do with it; or maybe the whistling wind, mingling with the pattering of hail and rattle of oakh-wheels, led the mind to brood over uncanny legends. Anyhow, all the company spoke of ghosts; some to mock, others to speculate; and here was the witty lawyer prepared to tell a grave tale of his own experience.

His jovial face grew stern. Like the Ancient Mariner, he addressed himself to one in company, but all were silent and attentive.

"You say all ghost stories may be explained, Mrs. Marchmont. So would I have said a year ago; but since we last met at your hospitable fireside, my wife and I have gone through a very astonishing experience. We 'can a tale

unfold.' No man was better inclined to laugh at ghost stories than I.

"Well, to begin my true tale. We wished for a complete change of scene last February, and Angela thought she would like to reside in the same county as her sisters and cousins and aunt—"

"Dorsetshire, I believe, Mrs. Henniker?" interrupted the lady of the house.

Angela nodded.

"I intended to take a house for my family, leave them comfortably settled in it, and run backward and forward between Dorsetshire and Dublin. Well, it so happened that I did leave them for a single day during the three months of my tenancy of the Hall. I had seen a wonderful advertisement of a spacious dwelling—house, with offices, gardens, pleasure grounds—to be had for £50 per annum. I went to the agent to make inquiries.

"Is this flourishing advertisement correct?" asked I.

"Perfectly."

"What! so many advantages are to be had for £50 a year?"

"Most certainly. I advise you to go and see for yourself."

"I took the agent's advice, and Angela was enchanted with the description I was able to give her on my return. A charming little park, beautifully planted with rare shrubs and trees—a bowery, secluded spot, so shut in by noble elms as to seem remote from the world. The house—such a mansion as in Ireland would be called manor house or castle—large, lofty rooms, thoroughly furnished, every modern improvement. My wife, as surprised as myself that a place of the kind should be going for a mere song, begged me to see the agent again, and close with him. It was done at once. I would have taken the Hall for a year, but Mr. Harrold advised me not to do so. 'Take it by the quarter, or at least by the half-year,' he recommended.

"I replied that it appeared such a desirable bargain that I wished to take it by the year. His answer to this was a reiteration of his first advice. I can't tell you how he influenced me, for he really said no more than I tell you; but I yielded to his evident wish without knowing why I did so, and closed with him for six months, not a year."

"Glamour, Mr. Henniker!"

"It would seem so, Mrs. Marchmont. We went to the Hall, and Angela was delighted with it. The snowdrops lay in snowy masses about the grounds—the garden gave promise of beauty as the season advanced. How the children ran over the house! How charmed we were with every nook and corner of it! Our own bedroom was a comfortable, large room, opening into a very roomy dressing-room, in which my wife placed two cribs for our youngest boys, Hal and Jack—"

"Don't forget to say that our bedchamber opened from a sitting-room," interrupted Mrs. Henniker.

"Well, for three weeks we all slept the sleep of the just in our really splendid suite of apartments. Not a grumble from our servants—nothing but satisfaction with our rare bargain. I was on the eve of returning to dear, dirty Dublin and the Four Courts, when—"

"When? We are all attention, Mr. Henniker."

"Angela and I were sitting in the drawing-room under the bedchamber I have described, when a loud cry startled us, 'mother, mother, mother!'

"The little boys were in bed in the dressing-room. Angela dropped her tea-cup and dashed out of the room, forgetting that there was no light in the rooms above us.

"I caught up a candle and followed her quickly. We found the children sobbing wildly. Jack's arms were almost strangling his mother, while he cried in great excitement, 'Oh, the old woman in the black bonnet! The old woman in the black bonnet! Oh—Oh—Oh!'

"I thought a little fatherly correction would be beneficial, but Angela would not suffer me to interfere. She tried to soothe the little beggars, and in a few minutes they were coherent enough in their story. A frightful old woman, wearing a black bonnet, had been in the room. She came close to them and bent over their cribs, with her dreadful face near to theirs.

"How did you see her?" we asked. 'There was no candle here.'

"She had light about her, they said; at any rate they saw her quite well. An exhaustive search was made. No trace of a human being was to be found. I refrained from speaking to the other children, who slept in an upper story, though I softly entered their rooms and examined presses and wardrobes and peeped behind dark corners, laughing in my sleeve all the while. Of course we both believed that Hal had been frightened by a dream, and that his little brother had roared from sympathy.

"Don't breathe a word of this to the servants," whispered Mrs. Henniker. 'I'm not such a fool, my dear,' I replied. 'But pray search the lower regions, and see if Jane and Nancy have any visitor in the kitchen,' she continued. 'She came through your door, mother, from the sitting-room,' sobbed Hal, with eyes starting out of his head.

"Who, love?" asked his mother.

"The old woman in the black bonnet. Oh, don't go away, mother."

"So Angela had to spend the remainder of the evening between the children's cribs.

"What can we do to-morrow evening?" asked she. 'I have it! Lucy shall be put to

bed beside Jack.' Lucy was our youngest, aged two.

"All went well next night. There was no alarm to summon us from our papers and novels, and we went to bed at eleven, Angela remarking that the three orphans were sleeping beautifully, and that it had been a good move to let Lucy bear the other two company. I was roused out of sound sleep by wild shrieks from the three children.

"What! More bad dreams? This sort of thing must be put a stop to," I said; and I confess I was very angry with the young rascals. My wife was fumbling for the match-box. 'Hush!' she whispered, 'there is somebody in the room.' And I, too, at that instant, felt the presence of some creature besides ourselves and the children. The candle lighted and we again reconnoitered—nothing to be seen in dressing-room, bedroom, or the drawing-room beyond, the door of which was shut. But the curious sense of a presence near us, stronger than any feeling of the kind I had ever previously experienced, was gone. You have all felt the presence of another person unseen. You may be writing, you have not heard the door open, but though your back is toward the visitor, you know somehow that he has entered."

"Quite true, Mr. Henniker; but there is nothing unnatural or unpleasant in that sensation."

"Nothing, of course; I merely instance it to give you some idea of what we felt on that occasion. We were astonished to find the sitting-room untenanted. Meanwhile poor Hal, Jack and Lucy shrieked in chorus: 'Oh, the old woman in the black bonnet! Oh, take her away!'

"Poor Angela, trembling, hung over the cribs, trying to soothe the children. It was a good while before they could tell what happened. 'She came again,' said Hal, 'and she came close, close to me, and she put her cold face down near my cheek till she touched me, and I don't like her; oh, I don't like her, mother!'

"Did she go to Jack and Lucy, too?"

"Yes, yes; and she made them cry as well."

"Why do you not like her? Is it the black bonnet? You dreamed of a black bonnet last night, you know," said I, half puzzled, half provoked.

"She's so frightful," cried Hal.

"How could you see her? There was no candle."

"This question perplexed the little boys. They persisted that she had a light about her somewhere. I need hardly say that there was no comfort for us the rest of the night. 'If any one is trying to frighten us out of the place, I'll be even with him yet,' said I. My wife believed that a trick had been played upon the children, and she was most indignant.

"Next day the cribs were removed to the upper story, and Charlotte and Joanna, our daughters of twelve and fourteen, were put to sleep in the dressing-room. We predicted an end to the annoyance we had been suffering. The nurse was a quick-tempered woman, who would not stand any nonsense, and Hal's bad dreams would be sternly driven away. We settled ourselves to our comfortable light reading by the drawing-room fire. Suddenly there was a commotion overhead; an outcry—surprised more than terrified. It sounded to us. Angela laid her book down quickly and listened with all her ears. Fast-flying footsteps were heard above; the clapping of a door; then—scurry, scurry—the patter of bare feet down the staircase. We hurried across the hall, and saw Charlotte in her night-gown returning slowly up the kitchen stairs, with a puzzled expression on her honest face.

"What on earth are you doing, child?" cried Angela.

"I was giving chase to a hideous old woman in a black bonnet, who chose to intrude upon us," panted Charlotte. 'I saw her in our room; I jumped out of bed and pursued her through your room and the sitting-room. Then I saw her before me going downstairs, and I ran after her, but the door at the foot of the kitchen staircase was shut. She certainly could not have had time to open it, and I really don't know where she can have gone to.'

"This was Charlotte's explanation of her mad scurry downstairs. Her downright sensible face was puzzled and angry.

"So you see the little ones must have been tormented by that old wretch, whoever she is. They didn't dream it, father, as you thought. Wouldn't I like to punish her!'

"What a brave girl!" cried Mrs. Marchmont.

"Brave? Oh, Charlotte's as bold as a lion! She went back to bed; and when we followed her, in a couple of hours, she was sleeping soundly. But I can't say either of us slept so well. If a trick was being played upon us, it was carried out in so clever a manner as to baffle me completely. I need not say that I made a careful search of every oranny about the handsome house and offices; and if there was a secret passage or a door in the wall anywhere, it escaped me. We had peace for a fortnight, and then the annoyance recommenced.

"Angela's nerve was shaken at last, and she began to whisper, 'There are more things in heaven and earth, Horatio—'

"John, you are making a story," interrupted Mrs. Henniker.

"It is every word true. I am coming to an end. Angela, in spite of her disclaimer, did believe in a ghost in a black bonnet. Charlotte

believed in her, but did not care about her ghostship. The nurse and cook and housemaid declared they were meeting the horrible appearance constantly; and they were all three in a mortal funk. As to the children, they would not leave off clinging to their mother and fretting and trembling when evening came. The milkman, the baker and the butcher all told the servants that we would not be long at the Hall, for nobody ever remained more than a month or two. This was cheerful and encouraging for me."

"But you had never seen the charming old woman all this time?"

"No; but I saw her in the broad daylight. I had a good long look at her, and a more diabolical face I never saw—no, not even in the dock. I was writing a letter in the study about 12 o'clock one morning, when I suddenly looked up, to see the appearance that had excited such a turmoil in my family standing near the table. A frightful face—a short set woman dressed in black—gown, shawl, bonnet—this was the impression I received. But she looked quite human—quite everyday—there was nothing ghostly in her air, only the evil face oozed one's blood. I stared at her, and then I took up a folded newspaper and threw it at her. My motive in so doing was to frighten her who had frightened my wife so much. Courtesy, such a creature need not expect from me, being, as her villainous countenance proved, one of the criminal class. The newspaper fell upon the floor, after apparently going through the figure, and there was a vacuum where it had been. I was not much shaken, however, although my theory of a human trickster dressed like a woman seemed overturned."

"Did you tell Mrs. Henniker what you had seen?"

"Naturally I did. At this period we talked of nothing else. She saw the apparition twice herself. Once she entered our dressing-room and saw the figure bending over the sleeping child (it faded as she looked); another time she was with me in the drawing-room, when she laid down her book and whispered, 'see, see, near the door! There, sure enough, was the apparition that had visited me in the study in clear daylight. I did not make her out quite as distinctly now, because our candles did not light up that end of the long room, or my older eyes were not as good as Angela's.'

"What did Mrs. Henniker do?"

"She started up and ran to catch the old woman in the black bonnet."

"And did she catch her?"

"She caught a shiver—nothing more."

"After this I resolved to give up the Hall at once, sacrificing four months' rent for the sake of my wife and children, whose nerves would have soon become shattered had we remained. I went to Mr. Harrold and told him how disagreeable the place was to us. He was grave and very guarded in manner, confessing that no tenant stayed more than a couple of months at the Hall—that his client certainly made considerable loss consequently—that he had done his utmost to find out what was wrong with the house, but all in vain. Mr. J— would not speak about it, and when strenuously urged to explain, replied emphatically: 'I shall never tell you the story of that house.'

"We dismissed the servants with handsome presents at once on our return to Dublin, so desirous were we that the children should never be reminded of their terror. I think they have not heard the old woman in the black bonnet spoken of since we left the Hall, and the younger ones have probably forgotten her. As to us, we can only say that the mystery is unexplained."—*The Argosy*.

## Chaff.

THE faster a man runs in debt the less he is apt to get ahead.

A MAN'S heart is blamed for lots of things for which his liver is responsible.

THE difference between repartee and impudence is the size of the man who says it.

MOTHER—Bobby, what made you eat all that angel cake? Bobby—'Cause you told me to be a better boy.

HAD Napoleon ever seen a girl climb a barbed wire fence, he would have held the honours of Austerlitz as nothing.

IT is related of a famous cook that he prepared fish so exquisitely that they returned him admiring and grateful looks from the frying-pan.

"PAPA," said Mrs. Bankum, "here is that flannel shirt of yours. I washed it, and—well, I'm afraid its usefulness is over." "Oh, no, my dear, I can use it for a pen-wiper."

PEACEMAKER—I wouldn't fight, my good men. First combatant—He called me a liar, sir. Second combatant—An' he called me a lazy loafer. Peacemaker—Well, I wouldn't fight over a difference of opinion; you may both be right.

"Yes," said Sally, "I think Mark is in love with me. He hasn't told me so, but when Fred Acker escorted me home from the concert last night Mark looked awfully wild, and to-day he threw a brick at Fred's cat!"

PHYSICIAN (with ear to patient's chest)—There is a serious swelling over the region of the heart, sir, which must be reduced at once. Patient (anxiously)—That swelling is my pocket-book, doctor. Please don't reduce it too much.



## Death.

[Written for the RURAL PRESS by DAGMAR MARIAGER.]

I saw within my dream a picture strange;  
A group gazed on our final master, Death;  
While I, aside, and at a greater range,  
Studied each countenance with bated breath.

One was a man in middle life, I thought,  
And blest with wealth, "though care sat on his face;  
Calmly he bore the pang the spectre brought,  
And cried, "My son may now enjoy my place."

One was a youthful fair-haired lad, and he  
Could not conceal his chagrin at the sight;  
He cried in bitterness of high degree,  
"My day before its noon has reached its night!"

A youthful woman was the next in line,  
And her pale cheeks were stained with long-shed tears;  
Her eager haste I scarcely could define;  
She said, "I'll quit these custom-hamper'd years."

Then a poor child reluctantly advanced  
And reached its hand unto the monarch bold;  
And said, as up into his face he gazed,  
"Oh, Death, you are so aged and so cold!"

A gray-haired woman was the last of all;  
On her wan face peace restfully did rest;  
She knelt before gaunt Death at his first call,  
Saying, "Those within the grave are blest."  
Santa Barbara.

## A Minstrel of the Desert.

[Written for the RURAL PRESS by DAGMAR MARIAGER.]

The Mountain of the Bell, or Jabel Nakane, is 400 feet high, and stands three miles inland from the shore of the Gulf of Suez, in the wonderful land that witnessed for many years the wanderings of the Israelites, and where, overlooking the wide wastes of stone and sand, are the two giant sentinels Sinai and Horeb. The Desert Minstrel is composed of an irregularly conical mass of white, friable sandstone, and has sandy declivities on two sides. One of these is a bed of sand filling a deep hollow which reaches from the base almost to the apex. From this loose mass—the disintegrated sandstone—the music issues when by the wandering winds, or by the footfall of human or animal upon its borders, it is set in motion. Then the whole body of the sand, even far into its depths, and abroad to its farthest margins, receives the vibration, as when an autumn leaf drops upon a still sheet of water, it shocks the whole surface and sends a succession of rings and ripples far and wide. It is uncertain how long the motion continues after each disturbance, but it has, probably, when neither fanned by the winds, nor patted by the rains, and under like degree of shock, a nearly equal time for reaching perfect quiet, as the famous swinging lamp in the cathedral at Pisa, which Galileo set to oscillating 300 years ago, takes its two hours.

As the slowly crawling movement gathers force by increase of territory, each grain of sand clinking against its mates, as it elbows its way toward the plain below, progressing a hair's breadth with each fresh impulse, the music, which begins like the low tones of an Arabian harp, swells into undulating murmurs, from which it takes on regular pulsations, like strokes of a bell, alternately rising and falling, and scaling and beginning, slowly becoming more progressive and sonorous, until at length the earth seems to vibrate with the mysterious melody under the feet of the Arab's camel, as he halts his animal that he may the better listen and look about him in wonderment before proceeding on his journey over the arid tract.

The Arabians have a tradition that there exists supernaturally a convent with the Mountain of the Bell, and that the music which greets the passer-by issues from the *nakane*—a metallic ruler which is suspended horizontally therein, and which a priest strikes with a hammer in regular repetitions as a call to the monks to assemble for prayer.

The music becomes a more and more dissipated medley of tones, while the wondering traveler stalks back and forth through the deep sand at the base in a vain search for the cause of the phenomenon, and an equally vain attempt to find its exact locality, the leading notes of it the while mysteriously following his feet, its song accompanied by his whole surroundings. His amazement grows momentarily more intense, as do also the tones which have awakened it, and he wades laboriously on and on through the white mass buttressing the seemingly haunted desert monument, ignorant that he himself has given it its song; that he himself is aggravating it to more intense efforts; that he himself is giving the needed touch to the myriads of crystal strings in the harp which would otherwise be mute.

## Community Property.

A very important amendment to Section 172 of the Civil Code was passed by the last Legislature. As it directly affects the title of much real property, the section is printed below entire, the SMALL CAPITALS showing the added portion.

Sec. 172. The husband has the management and control of the community property, with the like absolute power of disposition, other than testamentary, as he has of his separate estate, PROVIDED, HOWEVER, THAT HE CANNOT MAKE A GIFT OF SUCH COMMUNITY PROPERTY, OR CONVEY THE SAME WITHOUT A VALUABLE CONSIDERATION, UNLESS THE WIFE IN WRITING CONSENTS THERETO.

## YOUNG FOLKS' COLUMN.

## The Strange Old Man.

[Written for the RURAL PRESS by LOUIS E. FRANCIS.]

"Sonp gone, beefsteak eaten, pndding all gone—burrah, girls! Papa is through now," so proclaimed Master Bert from the top of the stairs where he had been watching papa eat supper. With this information from their scout, down rushed the four children pell mell to have their "play spell" and frolic with papa before going to bed.

Papa was away busy working in an office all day, but when evening came he always spent an hour with his children, sometimes amusing them by telling a story, again teaching some fact in his own funny way, and again having a regular frolic. It was a dear hour to them all. Bert, Ethel, Roy and Annie had been waiting to-night with eager impatience, for it had been raining, and the day had been very long.

Papa threw himself into his easy-chair and the children were all over him in a moment. When they had quieted down he asked:

"What shall we have to-night, children? Now don't all speak at once."

"O dear papa, do tell us one of your stories, do, that's a good papa," pleaded Ethel.

"Do, do, do," chimed in all the rest.

"Now it is a fact but I have told you all the stories I ever knew or read."

"Tell them all again."

"No, papa!" argued Bert, "we will keep real still, and you mix up all the old stories and make a new one."

"I shall surely go to sleep if I keep still long and then I shall talk to you in my sleep, and you know I will be liable to say very strange things."

"O we won't let you, now just think hard while we keep real still."

Papa closed his eyes and they were all quiet for a moment, but as he commenced to nod his head and oough, little rills of laughter burst out which soon ceased, however, when papa began in a strange voice:

"There once lived a very queer old man with a stomach as big as a mountain, with arms so long that he wanted to hold everything and a body made of balls, doll, and jelly cake."

"Papa is surely talking in his sleep," said Annie for that isn't one bit like a wide awake story."

"Keep still sis" said Roy, "that is only Papa's fun. It sounds fine, like Arabian Nights, only much better. Go on papa."

"He lived on the wrong side of everybody's house and slept on a mince pie pillow."

"My! What was such a funny old man good for?" asked Bert.

"What he really was good for, I don't know, but I do know a great many things he was not good for."

"Now we are interrupting; go on with the story. It is so nice."

"He slept on a mince-pie pillow," prompted the attentive Ethel.

"Yes; he slept on a mince-pie pillow, which was as big as a wagon-wheel, and although it was a very fine pie, he would never let any one have a bite, though every one knew when it was real dark he used to go into his room, shut the door and take big bites off of it; but strange to say, the pie never grew less, his stomach only grew and grew bigger and bigger."

"What a funny pie and what a funny man," remarked Annie.

"Nobody ever saw this old man, but every body knew when he was around, for he had a strange way of creeping into boys' and girls' pockets, and when he was there he made them do strange and naughty things."

"But, papa, why did they not pull him out?"

"The trouble was, they could not see what he made them do was not nice, and when papa and mamma came he would kick and cry so that they could never succeed in getting him all out."

"Why didn't they get a stick and beat him?" asked Roy.

"They did sometimes, but even that did not seem to cure him of his tricks. He used to crawl into a little girl's apron, when she would be playing with her brothers and sisters. As long as he stayed, she wanted all the pie and cake and the nice oranges papa brought from town, and if mamma gave any to the other children, she would pout. If they wanted to look at her playthings, she would run and grab them all up in her apron. If a playmate wanted to look in one of her books, she would put her hands over the pictures so they could not see."

"Was not that very naughty?" inquired Annie, who had just a dim recollection of acting so herself on one or two occasions.

But Papa went on rehearsing his little girl's remark.

"The old man liked to steal into a boy's pocket in among his marbles. When he once got safely fixed he would commence whispering, 'I want a piece of cake and that big orange in the center of the glass dish.'"

No sooner would our boy eat it, than that stomach, big as a mountain of the old man, would prompt him again to whisper.

"Sister had a much larger piece of cake than you had, ask for another." Just then baby brother comes up and wants to taste. Now our boy would give him some instantly, but the old man again whispers, "You are hungry, keep it yourself."

"I wouldn't let the old man talk so to me," said Bert decisively.

"Maybe you could not help yourself," reasoned Annie, "you remember those long arms of his. I should be frightened to death."

"Pooh, I wouldn't one bit."

"Do keep quiet, you are interrupting again," said Ethel who was intently listening to every word.

"He always made his boy companion want to have his bat and ball all to himself, and as for his kite, why no one but himself was allowed to fly it. Boys never liked to go 'divies' with him because he always kept the largest share for himself. It was all the result of those long arms in the boy's pockets for they were ever stretching and sighing because they could not hold the whole wide world. Would you believe it when any one was carrying the old man around in his pocket you would see a frown and dark look on his face, so I think he must have made them unhappy."

"One day the old man was standing very near two boys, and he concluded that he would have a better time in two pockets than one, so he thrust his long arms in one boy's pocket and left the rest of his body in the other's. Now the boys did not know anything about it, one started for school, the other to go swimming. They separated and what do you suppose happened?"

"I can't think," said Annie meditatively.

"It would have served him right," said Roy "if he had broke his neck, but do tell us."

"Well, he just fell out on the ground and broke up into a thousand pieces, and each little piece flew away and hid in a human heart where it felt it would be safe for all future time. Do you know we see the trace of those pieces to day in people. The old man was the Father of Envy and Selfishness, and the pieces were seeds of selfishness. I do trust my dear ones will never allow such to find a resting place with them. Once let them enter your heart and true happiness leaves. The birds of joy cannot sing when envy and selfishness desire all for self. I want my little ones to grow up to be grand, noble men and women, and one of the first stepping stones on the way is to kill every trace of the old man with a stomach as big as a mountain."

Papa's eyes open wide, a loving kiss is given and then all are off for bed. A few whispered words are heard as the nighties are going on about papa's funny "sleep talk," and then four heads are curled on four pillows white.

## GOOD HEALTH.

HEALTH OF THE STATE.—The State Board of Health for April reports: Mortality from 67 cities, towns and localities, having a population of 674,830, show 1064 deaths to have occurred from all causes. This is a percentage of 1.57 per 1000 per month, or 18.84 per 1000 per annum. Consumption was the cause in 164 cases, pneumonia in 153, bronchitis in 40 and congestion of the lungs in 8. Diarrhoea and dysentery are assigned as the cause of 7 deaths, cholera infantum 3, and of other diseases of the stomach and bowels 51. Croup caused 21 deaths, scarlatina but 1, whooping cough 3, typhoid fever 14, malarial fever 3, cerebro-spinal fever 6, cancer 29, erysipelas 1, heart disease 63, alcoholism 13, and all other causes, not necessarily classified 436. Of this last number 14 grippe is responsible for 13 deaths, and there is a reasonable presumption that many fatal cases of lung disease are traceable directly to an attack of that disease. Diphtheria caused death in 48 cases, San Francisco furnishing 27. The deaths reported for cancer were 29, 16 of which occurred in San Francisco. It should be borne in mind that reports are received from only a little over one-half the population of the State. The only disease that maybe said to prevail extensively is la grippe, 363 cases being reported from different parts of the State with an accredited fatality of 13. San Francisco, Los Angeles, San Diego and other southern points of importance report none at all. Oakland, Alameda and San Jose are almost, if not altogether, exempt. The progress of this remarkable malady has been somewhat erratic, following no well-defined course and requiring no unusual local conditions for its development.

A SEED TAKING ROOT IN A STOMACH.—A New York paper vouches for the improbable story that a New York boy suffered such intense pain in his stomach that a surgical operation was decided upon to remove the cause. On opening that organ the trouble was found to proceed from an orange seed lodged at the junction of the large and small intestines. The seed was greatly swollen and had a sprout an inch long. The boy stood the operation well; but upon his return to consciousness, he asked to see the cause of his suffering, and said it did not look one-tenth as big as it felt, and even laughed feebly at the idea of "an orange tree starting to grow inside of him." He rested easily after that, and it was thought he would get well, but peritonitis set in and he died the next day.

HOW TO READ THE TONGUE.—The perfectly healthy tongue is clean, moist, lies loosely in the month, is round at the edge, and has no prominent papillae. The tongue may be furled from local causes or from sympathy with the stomach, intestines or liver. The dry tongue occurs most frequently in fever, and indicates

nervous prostration or depression. A white tongue is diagnostic simply of the feverish condition, with, perhaps, a sour stomach. When it is moist and yellowish-brown, it shows disordered digestion. Dry and brown indicates a low state of the system, possibly typhoid. When the tongue is dry and red and smooth, look out for inflammation, gastric or intestinal. When the papillae on the end of the tongue are raised and very red, we call it a strawberry tongue, and that means scarlet fever. Sharp, pointed, red tongue will hint of brain irritation or inflammation, and a yellow coating indicates liver derangement. When so much can be gained from examination of the tongue, how important it is that the youngest child should be taught to put it out so that it can be visible to the uttermost point in the throat.

## DOMESTIC ECONOMY.

## Setting the Table.

[Written for the RURAL PRESS by CARRIE E. ROBINSON.]

The setting of the table seems to follow so naturally after the dish-washing that we shall beg leave to follow after with such hints as may help one inexperienced, as knowledge in this direction does not spring spontaneously when needed. Observation of the tables of others is a good object-lesson, but somehow many are like a lady whom I heard reply to this remark the other day: "Did you notice how prettily Mrs. Lacy's tea-table was set yesterday?"

"Not how it was set, I know it looked pretty, but I'm sure I couldn't tell you a thing there was on it, except that there were flowers in the center." Such people as these never learn by observation; they must have rules to go by (and there are many such).

First, you must have a good, firm table, then good, if not so very fine, table linen, well ironed. A soft blanket, made of heavy cotton flannel, to put under the table-cloth, adds greatly to the rich look of the linen, and also serves to protect the table from the hot dishes. If any hot food is to be served by the master of the house, the plates, made warm in the hot closet of the stove, should be placed in a pile directly in front of his place, with the food arranged at the front of these. Lay the proper number of places, and if there are to be guests, arrange for them the most comfortable seats, both in relation to warmth and the legs of the table, which are always in somebody's way. Place the knife, fork and soup-spoon, with the drinking glass, at the right, the napkin at the left, and the butter-plate in front of the center of the plate, or where it will stand when served. If individual salts are used, these should stand by the tiny butter-plates. The tiny pats of butter, now made for this purpose, should be placed upon the table before the meal is called. That saves one troublesome dishing and passing during the meal; but there should be a dish of butter upon the table from which to replenish these. If the lady of the house is to pour the coffee or tea, the cups and saucers and teapot, with the sugar-bowl, cream-jug and spoon-holder, should occupy a tray set in front of her plate. Tea she should pour and pass clear, leaving each person to season his own. Coffee is so much better poured upon the cream and sugar, placed first in each cup, that it seems better to find out each person's taste before pouring it out. At one end of the table, should be placed a plate or tray, containing bread or rolls, with perhaps a second plate of brown bread. In the middle of one side, the dish of butter, with one of pickles and a small oyster. They have made us put aside our large, handsome oysters, to save for our grandchildren, I guess; but Dame Fashion says we mustn't use them any more at present, and we have had to obey. If there are alder dishes of vegetables to be dished, they should be placed with the small dishes beside the plate of the one who is to dish them, always keeping the balance of the arrangement symmetrical. This is an ordinary dinner-table we are discussing; with elaborate dinners, etc., of course the plans must be studied out on the spot. A pitcher of water with a small number of glasses on a tray may find room on the table, usually at the right of the master of the house, but on a small side-table is quite as appropriate. The soup should always be served and removed before the fruit and vegetables are brought on. Hot food should be served very hot, and cold food very cold. In waiting on table, pass the dishes over the right shoulder. After the meats and vegetables are done with, which is properly called the second course, if soup has been served, remove them and brush your table free from crumbs and soil before bringing the dessert or having it brought for the mistress of the house to serve from her place.

A well-trained waiter is a valuable possession in the line of help, but among the middle class, if so we dare to term those to whom these papers will prove most useful, these are seldom found, so that the house mistress usually must do these things herself, and she will likely find it easiest to dish her pie or pudding at the table, and send around the sauce in a boat, or the cheese daintily grated on a pretty dish, if the pie happen to be mince or apple. At a table of this sort it is always the proper thing to fold your napkin, and if you found it in a ring, to return it to the same, and to leave your fork or spoon lying on your plate.





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Saturday, May 23, 1891.

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## Business Announcements.

[NEW THIS ISSUE.]

Commission Merchants—Price, Berlin Company.  
Wagons—Baker & Hamilton.  
Mowers, Headers, Rakes, Etc.—Deere Implement Co.  
Gas Engines—M. A. Graham.  
Washing Machines—E. W. Melvin, Sacramento.  
Hay Presses, Scales, Tools, Etc.—Truman, Hooker & Co.  
Alfalfa Hullers—Birdsell Mfg. Co., South Bend, Ind.  
Flour—Starr & Co.  
Anderson Springs—J. Anderson, Middletown.  
Engines—James Linforth.  
Business Chance—C. R. Orcutt, Orcutt, Cal.

See Advertising Columns.

## The Week.

Fruit is going eastward in increasing quantities, cherries and apricots comprising the shipments thus far. These are but the heralds of the fruits to come, and as Eastern reports are still of severe and untimely frosts, California may again serve the East well in supplying a varied diet.

There is a menace to some regions adjacent to the Sierra foothills in grasshopper visitation. Fortunately, this occasional evil does not usually cover great areas, but it produces grievous local losses. The mode of treatment described on page 514 of this issue, proved notably successful during the grasshopper raid of six years ago. All in threatened regions should make ready to apply it early.

The week has been windy and cool and somewhat threatening, but productive of showers

only in the extremities of the State, the central area having to be content with cool air and fleeting clouds.

## Cheap Sugar.

Wide-awake San Francisco merchants are to be credited with a movement for their own profit which fortunately has a wide bearing both upon the household economy of us all and upon the promotion of great industries in which the profitability of our growing fruit production is largely concerned. Readers will remember, no doubt, that although by the action of the McKinley law the duty on imported sugar was reduced from three cents to one-half cent per pound, the local sugar monopolists made no appreciable difference in the rates at which they dispensed the saccharine to their customers, but were quietly pocketing nearly all of the 2½ cents per pound of reduced duty. This might have gone on in this way indefinitely had it not been that our merchants, who are naturally restless under the impositions of the sugar monopolists, saw in this continued exaction a chance to run in sugar from various parts of the world, and it is now on its way to this port. The first arrival was about 1000 tons of high-quality Manila sugar refined in Hong Kong, which is reported to have cost 4½ cents per pound in that port. On its arrival the local refineries charged 6 cents per pound, and when the imported sugar was put on the market at 5½ cents they dropped to 5½ cents and 5 cents, but they are endeavoring to maintain their hold upon the chief part of the local consumption by binding the canners, wholesalers and candy men to purchase of no one but them. By so doing they hope still to control the trade of the coast.

How far they will succeed does not yet appear. Of course, the little lot of sugar from China does not count much; in fact, it is already reported mostly sold, nor will the importers from China say what their plans for the future are. It is altogether likely, however, that we shall have plenty of imported sugar, and in the face of it, the local refineries must drop their figures. How cheaply sugar ought to sell here is shown by the statements of one of our prominent canners to an interviewer as follows:

It is true that we have ordered a large amount of beet sugar from Germany—2000 barrels. We need about 400 tons a year. We can import beet sugar from Germany that is fully as good for our use as we can get here, and at a much less price than is offered us in this city. To hold the trade of this coast, the refineries will have to come down to 4½ cents, as sugar can be imported for that price. Sugar can be purchased for about three cents in Germany, and can be brought here by steamer and by rail via New Orleans for \$19 a ton, or 95 cents a 100 pounds, insurance and all, with an additional .6 of a cent a pound duty. By ships around Cape Horn, the sugar can be brought for \$10 a ton, or 50 cents a 100 pounds.

There are several other firms importing German sugar, and many other canners and candy manufacturers have large invoices of German beet sugar on the way. It is not expected, however, that importations will continue, for local refineries will be forced to drop their prices to meet the competition. This will be better, for the local enterprises should be patronized when they deal fairly; but it is extremely fortunate that there is a means by which they can be kept to such behavior.

The drop in values may make the local beet-sugar enterprises somewhat apprehensive of their profits, but they have, of course, the bounty, and they could hardly have counted on retaining the former sugar value plus the bounty when the duty is lower.

The importance of cheap sugar in the future of the enterprises, which we are striving to build up, can hardly be exaggerated. It is well understood all around. A San Francisco merchant thus pictures it:

This high price of sugar has been greatly injuring one of the leading industries of this country—the fruit industry. Why, I have on my table English jams and jellies. Most fruits are about the same price in England that they are here; sugar is about three cents a pound there, while it has been over double that here. English preserves can be landed in America at several cents less than it costs to make similar preserves in this country. This is greatly due to the high prices of sugar, and by this the sale of fruit is greatly decreased, whereas if the prices of sugar were the same here as in England, the demand would be beyond comparison. On account of the large amount of sugar used in putting up fruit, the slightest differ-

ence in price makes a great difference to the canners.

This is quite true. Cheap sugar is the key to much of our progress in fruit preservation and export. If we can produce it ourselves, so much the better. Until we do this our merchants who import and thus prevent extortion by local refiners, are doing a public service.

## Excessive Transportation Rates.

The struggle of the producers to secure something like fair rates for the transportation of their produce continues. It has been often shown that our local railroad freight rates are extortionate as compared with rates charged in other parts of the country where similar volume of traffic is to be had, but these showings do not avail much, nor do we have much faith in the success of Philip Barrows, who, in his own interest and in that of other grain-growers of the San Joaquin valley, has addressed a long letter to the Railroad Commission. He complains of grain rates, alleging that they are too high. The reduction of these rates in the East, he says, made the Vanderbilts rich, and while there it costs \$3 to move grain 1000 miles, here the Southern Pacific Charges \$4 to move the same quantity 200 miles. There is no doubt whatever about the extortionate prices charged here, but it is very doubtful if the argument that they can make more money by charging less will have any weight with the railway managers. They have been appealed to in that way before and data and arguments presented which would convince any business man of the desirability of a change in his policy, but the railway men cannot see it. They are much like the eastern fruit firms who did not like the idea of increasing the shipments and extending the distribution of California fruits. They preferred to make more money with less trouble. This policy worked until they found that it was bound to go and then they embraced the new movement. Whether we shall live long enough to see so much sense in railway management seems doubtful. They believe so much grain will be grown anyway and it must get to tide water, and there is no other way to get it there than at \$4 per ton for 200 miles. They will hold this view and policy until competition gets behind them or until we get railway regulation which serves the public rather than the railways and of the latter happy result, there does not seem to be any immediate prospect. However, it is wise to be doing something. Constant dropping wears away great stones. Keep at them in every honorable way. Educate the people on this subject. We are glad the San Joaquin grain growers are on the war path.

## Better Times for Farmers.

Hon. J. R. Dodge, the statistician of the Department of Agriculture, takes a hopeful view of the agricultural future. In his last bulletin, he notes that all indications point to positive improvement in rural prospects, and render practically certain a year of general agricultural prosperity. Western prices of corn are more than 100 per cent higher than in May of last year. The same may be said of oats. Wheat has advanced about 30 per cent, and the different classes of heaves in the Chicago market from 18 to 34 per cent. The export price of high-grade beef, relatively high in the worst of times, has advanced 10 per cent.

The wheat crop, so far, promises to be large. A few weeks will fix the relative rise of it. Ordinarily, a large crop would depress prices. This year the prospective reduction of foreign crops, which is assured, though not yet definitely ascertained in degrees, will certainly make a demand for any crop we are likely to produce at remunerative, if not relatively high prices. The exhaustion of the maize surplus will have its effect in sustaining corn prices during the year. The same is true of the oats crop. Of course a continuance of heavy crops will eventually reduce prices, and this should be avoided by a wise diversion to products needed, but not produced.

Lay down a method also for your reading, for which you allot a certain share of your mornings; let it be in a consistent and consecutive course, and not in that desultory manner in which many people read scraps of different authors upon different subjects.

## The Cannery Combine.

It seems that the canners' combine has become a fact. The thing took shape this week with the filing of articles of incorporation of the California Fruit Canneries, with a capital stock of \$2,000,000, to which only \$6500 was subscribed, with the general object of carrying on the canning industry in all its branches, and a directory composed of E. B. Beck, P. D. Code, A. D. Cutler, Isador Jacobs, H. A. Williams, A. B. Miner, W. H. Wright, M. J. Fontaine and E. L. Dawson.

It is claimed by a prominent packer that the proposition is all right and that it would not hurt the fruit-growers. He denied that any foreign capital was interested or that anything to fix a uniform rate for packing fruit was to be established, for the reason that the different canneries made individual contracts with the growers. "None of us," said he, "are doing business as profitably as we ought to, considering the amount of capital we have invested, and if we can put it on a better paying basis and raise the quality of our goods without damage to the local market, I can't see where any objection should come in."

It will be all right enough, no doubt, if it works that way, and if it does not, there are several remedies. In the first place, all attempts to combine canners have failed hitherto because of the irresistible disposition to get behind one another, or at least to attempt to. Whether the present arrangement has effectually closed all the back doors remains to be seen.

If it does, and an attempt is made to scale down fruit prices, it will only prove a temporary embarrassment, and in some cases not even that. The dry-log-tray is a deadly weapon when lifted up against a canner, and it is not necessary that all should lift it either. The refuge in dry-log only has to be sought by a portion of the growers to relieve the situation, and if the packer whom we quote is correct in saying that each canner still makes personal contracts with the growers, there is a very large hole in the back fence, through which many fruit crops will be pulled at good prices, as they have been heretofore.

But suppose it works like a charm and the combining canners pool all their losses and make a price which the grower does not like, what then? It will not be long before there are many growers' canneries, co-operative or otherwise. It does not cost as much to build and equip a cannery as it does to start a beet-sugar factory, nor is it difficult to master the processes. Every considerable producing district can have its cannery and can make it pay, but this is of course a last resort. It is a bother for a grower to work up such things. He is better off to sell at a fair price and let the other fellow do the worrying over sugar and tin and commissions. So long as a fair price—that is, a profitable price to the grower—is offered, we do not suppose any one cares about the canners' combine. We shall have to wait to see about that.

**CALCEOLARIA RUGOSA.**—C. H. Shinn would remind RURAL readers that it is not generally known that the very old and beautiful *calceolaria rugosa* is one of the best outdoor garden plants known. Several ladies at Niles have it in their gardens, bushes three feet high, and loaded with flowers. It is probable that there would be sale for out flowers at the florists. A lady recently met, had a basketful of large clusters of this fine calceolaria, and she said that the plant "grew like a weed, needing no care whatever." Unlike the delicate hybrid calceolarias, the *rugosa* is "half-hardy," or in other words, well suited to be an all the year plant in California.

**INTERSTATE COMMERCE HEARINGS.**—It is announced from Washington that Interstate Commerce Commissioners Morrison, Bragg, Veazey and Knapp will make a tour of the circuit to the Pacific Coast and return, hearing cases and making investigations at various points on the route. The Commissioners will be at the following places, probably, for the time set: Spokane Falls, May 26th until May 30th; Tacoma, May 31st until June 3d; Portland, June 4th and 5th; San Francisco, June 7th until June 9th; Salt Lake City and Denver, stopping en route for Topeka. A number of hearings have already been assigned.



## Secretary Rusk on California.

When Secretary Rusk of the Department of Agriculture was visiting San Francisco recently with the Presidential party, he promised at his first leisure to give the *Chronicle* his estimate of California as an agricultural and horticultural State. It was thought that his reputation as an expert farmer, as well as his position at the head of the Agricultural Department, would give value to these views. He has now fulfilled this promise by sending the following notes and conclusions of his trip:

No man can form anything like a correct estimate of the wonderful resources, the marvelous productiveness and the inexhaustible wealth of California, unless he visits this continent between the mountains and the sea, and investigates, sees, touches and tastes for himself. I, perhaps, as an officer of the Government, have had more material of an authentic nature, from which to form an idea of the mineral and agricultural wealth of California without seeing it, than almost any other man in the East during the past few years, and I am now ready to confess that with all the information at my command, my trip through the State has been a succession of great surprises.

I return from this visit, hurried as it is, wonderfully benefited, and prepared to intelligently meet and dispose of many vexed questions arising in the work of my department, having received knowledge applicable to the cases from your people. The Eastern man still looks upon California as the land of gold, for so long has California been associated in our minds with the production of the precious metals that even now her importance as an agricultural State is but little understood by most of our people; that it is the third State in the Union in wheat production; that it includes within its borders some of the most prosperous farmers in the United States; that it owes to agriculture the larger part of that wonderful increase in its taxable values, which bring them up at this time to the vast sum of more than \$300,000,000; that from San Francisco alone there is shipped abroad over 20 per cent of the total flour and wheat exports of the United States; that it is the second State in number of sheep, with an average annual wool export of 35,000,000 pounds; that last year over \$10,000,000 worth of fruits was shipped to the Eastern markets; that the value of its vineyards alone aggregates \$86,000,000, and that all this agricultural wealth is produced from a comparatively small portion of the State, a State in which the Land Office reports nearly 54,000 acres still open to settlement.

These facts, I say, are but little known to the majority of our people, and but few, even of those who know them, realize their full meaning. To the Eastern man who has tilled the farm of 20 or 40 acres that his father and his father's father tilled before him, the farms of this great State are as the legends of fairy land, and when told that with the same energy he expends on his 40 acres he can farm in California four times forty, he becomes incredulous.

Again the Eastern farmer, both from training, tradition and the nature of his environment, year after year raises the same crops and knows only the wheat, oats, rye, barley and potatoes, with a smattering of garden truck for his own use, and perhaps an acre of orchard, generally of pears, apples and cherries. He cannot imagine such farms as I have seen in this State.

The physical conformation of California, with 700 miles of seaboard to the west, a vast mountain chain on the east, and embracing between the mountains and the seaboard altitudes, combined with the ocean currents and winds, makes a wonderful variety of climatic conditions and renders possible almost every variety of production under the sun. The people have not been slow in taking advantage of the opportunities presented, and to-day California is sending into the world everything almost in the way of necessities and luxuries that man needs and that mother earth provides.

But Eden had its serpent, and so California has, otherwise it would be too perfect—a veritable paradise. Wherever fruit is grown we have to acknowledge, unfortunately, that fruit diseases are not long in making their appearance. The development of the fruit industry in the United States has been no exception to the rule, and hand in hand with fruit-growing it is found necessary to fight fruit diseases. The work of vegetable pathology, which, since my advent in office, has been erected into a special division, has, I am glad to say, attacked the latter phase of the fruit problem with both energy and skill.

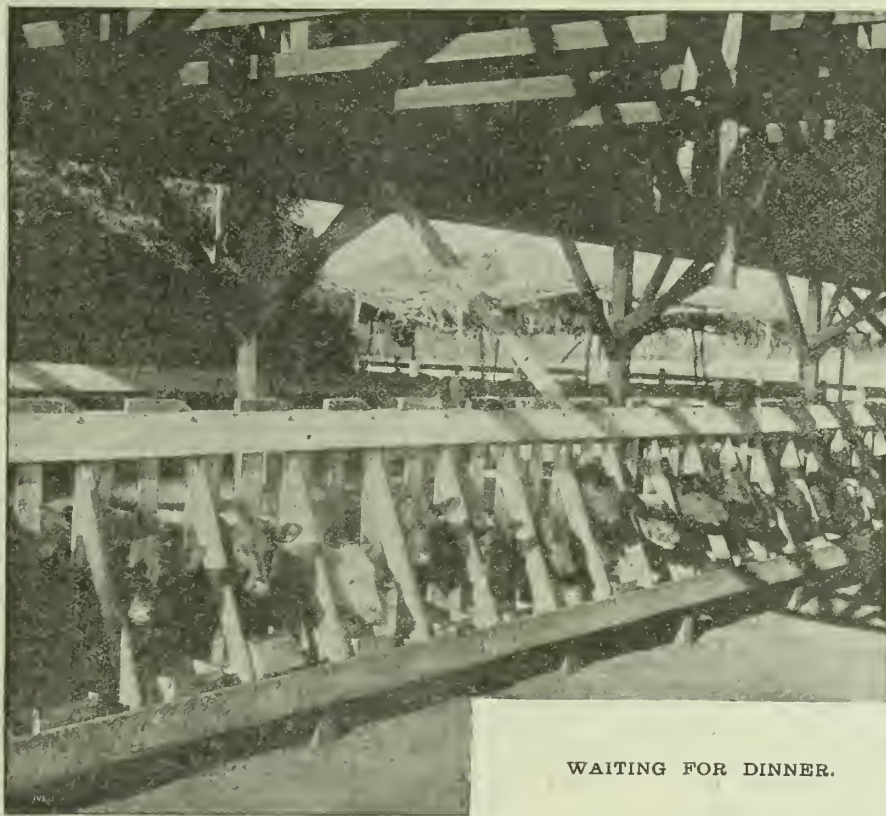
A special investigation into the so-called California vine disease was inaugurated two years ago, and has been pushed forward as rapidly as possible. A report of the results is now in preparation. This disease has caused, alas! an aggregate loss of millions of dollars to the grape-growers of California. We are confident that the results of the report of the department, soon to be published, will enable the grape-growers to greatly diminish the ravages of this disease.

The department has always endeavored to assist the farmers and fruit-growers of California in the matter of suppressing insect pests. Ten years ago, the entomologist was sent out here to conduct a series of investigations upon the insects which were injuring your horticultural interests. Five years ago, two of the field agents of the Division of Entomology were stationed here, one at Los Angeles and one near San Francisco, and have since remained with you, working under the direction of the entomologist upon the problem of how to overcome your injurious insects.

Professor Riley made a special visit four years ago in connection with your orange pests, and, as a consequence, an agent was subsequently sent to Australia, and brought over the little beetle which has rid your trees of the white scale, saving hundreds of thousands of

## Dairy Pictures.

We give this week another group of dairy pictures from the *Overland*. The leading view, showing the interior of a calf-shed with the youngsters awaiting the arrival of their rations, may be suggestive to some of our readers who are prone to keep their calves in any out-of-the-way place which seems handy. It is a mistake not to give the calves a good, comfortable and wholesome habitation. People are apt to forget that these are the babies of the herd and their value as adults will depend to some extent upon their treatment as youngsters. The mortality, which is often alarming among calves, is often due to lack of care or proper shelter, or to improper food, or to good food



WAITING FOR DINNER.



JERSEY FARM MILK WAGON.



A COW IN A BOX.



THE CREAM SEPARATOR AT JERSEY FARM.

dollars every year in this work. We are experimenting against the phylloxera in Sonoma valley, and we are working on the red scale and other fruit pests. The people of California have always been fully alive to the necessity for work in this direction, and the investigations of the department have been appreciated and seconded in an able manner by your State and County Horticultural and Agricultural Associations.

How much I have learned that will be of inestimable benefit to the agriculturists, horticulturists and floriculturists of this country, during my brief visit to California, I do not really know myself, but I am ready to say unreservedly that I consider my visit of untold value to me individually and as an officer of the Government. California is truly the poor man's paradise, and the day is not far distant when the whole world will realize it.

JEREMIAH RUSK.

BOSTON AND NEW YORK.—It is reported that New York's banking capital is \$2,000,000 less than that of Boston.

## California Products Summarized and Compared.

The following is from advance sheets furnished to the *RURAL PRESS* of a report prepared for the State Board of Trade by one of the most painstaking and careful students of California's industrial progress, Gen. N. P. Chipman of Red Bluff. The report will be found to contain valuable statistical information relating to our fruit industries, and to present the comparative value of our wheat and fruits, and also the comparative value of fruit products in North and South California. The results have never before been brought together, and will be found to contain data from which many important deductions can be drawn:

Eugene J. Gregory, President State Board of Trade:—After much investigation, and with as accurate data as are obtainable, I have prepared the following tables, showing:

Fruit exports for 1890.

Comparative values of fruit and wheat exports for 1890.

Comparative value of fruit exported from Northern California and Southern California in 1890.

These tables present results never before brought into comparison, and should prove of interest to the public, notably the comparative value of wheat and fruit exports, and the comparative value of fruit exports from North and South California. The value is taken at the farm or orchard, or first point of shipment.

## FRUIT EXPORTS BY SOUTHERN PACIFIC SYSTEM.

Place.	Dried Fruit.	Deciduous Fruit.	Citrus Fruit.
San Francisco.....	4,763,630	76,520	144,500
Oakland.....	856,020	1,871,930	.....
Sacramento.....	8,275,920	46,865,220	.....
San Jose.....	13,962,210	12,185,020	.....
Stockton.....	8,634,350	5,040,631	.....
Marysville.....	2,131,770	992,510	20,850
Los Angeles.....	2,256,050	1,053,290	7,477,120
Colton.....	2,596,960	.....	10,801,850
Totals.....	43,377,910	63,084,124	18,444,320

Place.	Raisins.	Canned Goods.	Nuts.
San Francisco.....	897,620	45,630,140	181,320
Oakland.....	20,050	316,240	.....
Sacramento.....	3,797,290	10,276,640	103,170
San Jose.....	185,440	16,654,750	30,400
Stockton.....	20,143,590	1,112,560	20,880
Marysville.....	546,340	3,422,660	21,140
Los Angeles.....	429,940	6,1960	1,201,430
Colton.....	1,345,860	2,106,970	16,290
Totals.....	27,370,330	80,121,950	1,574,230

## TOTAL BY SOUTHERN PACIFIC CO.

Deciduous pounds.....	220,525,540
" tons.....	110,264
" carloads.....	11,026
Citrus pounds.....	18,444,370
" tons.....	9,222
" carloads.....	922
Total cars of all kinds.....	11,948

SHIPPED BY THE SANTA FE SYSTEM, AS SHOWN BY THE "ANNUAL TIMES" FOR JANUARY, 1891.

Place.	Oranges, Pounds.	Dried Fruit, Pounds.	Raisins, Pounds.
All places.....	49,975,000	.....	.....
Los Angeles Co.....	10,036,360	250,000	.....
Orange Co.....	2,400,000	25,000	.....
San Bernardino Co.....	8,290,000	11,275,000	.....
San Diego Co.....	400,911	2,200,000	.....
Totals.....	49,975,000	21,217,271	13,750,000

## TOTAL BY SANTA FE SYSTEM.

Deciduous pounds.....	34,967,271
" tons.....	17,483
" carloads.....	1,748
Citrus pounds.....	49,975,000
" tons.....	24,987
" carloads.....	2,493
Total carloads, all kinds, S. Pacific System.....	11,948
Total carloads, all kinds, Santa Fe System.....	4,246
Total pounds, all kinds, by both systems.....	323,015,181
Total carloads by both systems.....	16,194
Total cars for each day of the year.....	44

The whole makes a solid train of cars 123 miles long. Total carloads shipped in 1890..... 546 Increase in 1890 over 1880..... 15,648

## COMPARATIVE VALUE OF FRUIT AND WHEAT EXPORTS.

Green deciduous fruits, 63,084,124 lbs. @ 7c.....	\$ 4,815,613
Dried deciduous fruits, 64,595,181 lbs. @ 12c.....	8,074,397
Raisins..... 41,120,330 lbs. @ 6c.....	2,570,020
Nuts..... 1,574,230 lbs. @ 10c.....	157,423
Canned fruits..... 80,121,950 lbs. @ 3c.....	2,403,658
Oranges..... 1,023,700 bxs. @ \$1.75.....	1,800,225
Grapes in wine..... 18,000,000 gals. @ 15c.....	1,700,000
Grapes in brandy..... 1,000,000 gals. @ 45c.....	450,000

Total value of fruits.....\$19,857,826

## WHEAT EXPORTS.

Wheat.....21,690,682 bushels	
Flour.....5,910,555 bushels	
Total.....27,601,238 @ 70c.....	\$19,327,166

Excess value of fruits.....\$ 530,660

## COMPARATIVE VALUE OF FRUIT EXPORTS FROM NORTH AND SOUTH CALIFORNIA.

North.	
Dried.....	38,524,000 lbs. = \$ 4,815,613
Green.....	67,030,834 lbs. = 8,074,397
Raisins.....	25,595,330 lbs. = 1,590,708
Canned.....	77,413,020 lbs. = 2,322,300
Nuts.....	356,510 lbs. = 35,651
Oranges.....	..... = 4,200
Wine.....	16,000,000 gals. = 2,400,000
Brandy.....	800,000 gals. = 360,000
Total.....	\$13,213,333

South.	
Dried.....	26,070,281 lbs. = \$ 3,263,785
Green.....	1,053,290 lbs. = 26,332
Raisins.....	15,525,000 lbs. = 970,312
Canned.....	2,703,930 lbs. = 81,267
Nuts.....	1,217,730 lbs. = 121,772
Oranges.....	..... = 1,796,025
Wine.....	2,000,000 gals. = 300,000
Brandy.....	200,000 gals. = 90,000
Total.....	\$ 6,644,493

## Deductions from the Tables.

It will be noted that green deciduous fruits are nearly all shipped from the north; that

carelessly or irregularly dispensed. All these can be corrected, and if a dairyman will erect for his calves a habitation which he will be pleased to show to visitors, his care of the young animals will also be apt to be much better. Many times the calf pen or calf-shed is an outfit which has continually to be apologized for, and no wonder the calves die or grow up spindling and poor. The open shed shown in the engraving may, in the warmer parts of the State, serve as an all-the-year abode; but on the coast and in the colder parts of the State, a more perfect shelter will be required.

Another picture shows the De Laval cream separator as used at Jersey Farm, one of our leading dairies sending milk to the city. It is here run by water power, and the arrangement which is sketched is very neat and satisfactory. Another sketch shows one of the large milk-wagons used by Jersey Farm to convey milk from San Bruno to the city. It is a double-decker and carries two tiers of cans.

The smallest sketch of all shows a method of milking which is unusual, to say the least of it.



shipments of dried fruit from the north exceed the south over eleven million pounds; that five-eighths of the raisins go from the north; that nearly all the canned goods go from the north; that of the wine and brandy eight-ninths go from the north; that nearly all the nuts and practically all the oranges go from the south.

It will also be noted that the green deciduous fruits exported from the State about equal the value of oranges; that the dried fruits are more than four times the value of oranges; that our raisins have a value of nearly one million dollars more than oranges, and our canned goods over half a million more than oranges; that our wines and brandy have a value to the producer of over one and a quarter million dollars more than oranges. Also, that the exports of deciduous fruits and nuts exceed exports of oranges by seventeen million dollars.

It will also be noted that the value of the dried fruit shipped from the south is about double the value of her oranges; that the raisins of the south equal half the value of the oranges, and that the orange crop of the south is only about one-fourth in value of her whole fruit crop.

It is a significant fact that while our wheat output has not materially increased from 1880 to 1890, our fruit output has increased more than 30 times, and is growing with great rapidity.

While the showing here made still keeps California in the front rank of wheat-growing States, it demonstrates the great advantages of the State as a fruit-producing country.

In 1890, our exports of fruit brought us probably at the rate I now figure the farm value of fruit, about \$700,000, while they now amount to about \$20,000,000. This wonderful result has brought with it what is above all computation, to wit, the demonstration that fruit-growing in this State is very profitable, and is almost absolutely safe from frosts and other drawbacks.

Ten years have taught us also that we may resort to lands for fruit-growing, and quadruple our output, and still retain our primacy as a wheat and barley and wool producing State.

In closing, I desire to say that my data as to fruit shipments are given by the transportation companies, and the points of shipment I could not change; but they are misleading in this, that they are terminal points and do not give place of production. For example, Fresno does not show as a point of shipment, and yet it is the chief raisin-producing region; nor does Riverside, and it is the center of citrus fruits.

My data as to wines and brandy are furnished by Mr. Clarence S. Wetmore of the State Board of Viticulture. The wine and brandy output I give as a whole, not being able to obtain exports separately.

My data as to wheat I get from the San Francisco Produce Exchange, and as to average price from Mr. G. W. McNear.

The wheat exports I am satisfied included grain of previous years, because the whole of 1890 was only two million bushels more than the exports, and that would not furnish bread and seed.

My prices given to fruit are based upon my own experience and that of others in the business. They may be a little above or below, but as a whole they cannot be shaken much. The tables furnish valuable data for reflection and thought.

The disproportion of fruit products North and South on its face is encouraging to the North, but let us not deceive ourselves or our patrons. Eight counties south, with a population of 223,836, received \$6,444,493, or about \$29.68 per capita; while the balance of the State, with 948,284 population, received \$13,213,333, or about \$13.45 per capita.

### The Coming State Fair.

Our RURAL representative, who has traveled quite extensively over the State, notices an unusual interest taken in the coming State Fair. By an interview with Mr. Edwin F. Smith, Secretary of the State Board of Agriculture, he learns that there has been more applications for space up to this date than for any preceding year. The extra appropriation made by the last Legislature, and the general prosperity all over our State, warrants us in predicting a fair of unusual interest and large proportions.

The system inaugurated of having rivalry and competition between counties has been a step in the right direction, and already several counties are making preparations and laying out plans to make a large exhibit as a county.

Several large firms in San Francisco, who have heretofore confined themselves to exhibitions in the Mechanics' Fair, will this year exhibit at the State Fair also.

The State Board of Agriculture, in anticipation of a large exhibit of stock of various kinds, has made preparation to make provisions to accommodate them. The program of races has been prepared with a great deal of care and consideration, and it is expected both at the agricultural park and at the pavilion, that the exhibit of fine stock and mechanism will be from one-fourth to one-third larger than it has been in preceding years.

PENNSYLVANIA COAL sells in Italy cheaper than Welsh coal. The Illinois Central Railroad Co. is to build fast steamers to run between New Orleans, La., and Central and South American ports to attract trade that now goes to New York.

## AGRICULTURAL NOTES.

### CALIFORNIA.

#### Butte.

**INCREASING ATTENTION TO STRAWBERRIES.**—Wheatland Four-Corners: Strawberries are attracting the attention of our farmers. We understand that about 8 or 10 acres of berries will be planted by different parties next spring. The land generally selected is either red land or creek bottom. One of the parties intends to procure a shipman engine and a pump to irrigate the vines with. Strawberries, when properly handled, yield a profit of from \$100 to \$300 per acre, while on the other hand it is a crop that is absolutely worthless, if not properly attended to.

**A CHANGED CONDITION IN SIX WEEKS.**—Oroville Mercury: Rancho Golden Grove, property of Col. McLaughlin, in Thermalito, is a revelation to people who come to Oroville by way of Chico or Biggs. Six weeks ago all the land between the Cherokee road and the river and east of the Oroville and Chico road was covered with small oaks and the remains of an old reservoir. Now it is in a beautiful state of cultivation and will soon have a neat fence and a sidewalk around it.

**PALERMO FRUIT PROSPECTS.**—Cor. Mercury: Palermo is alive with men and teams cultivating the broad stretch of orchards, groves and vineyards. If the budded groves are permitted to bear, Palermo will have a nice little crop of fine oranges this year. Next year the crop will be counted by the carloads. Grapes, figs and olives seem to do as well there as the orange.

**RANCHO CHICO FRUIT CROP SOLD.**—Chico Chronicle-Record: The Rancho Chico crops of the orchards and vineyards have been sold to W. W. Cozzens of San Jose. The terms of the sale are much the same as those upon which Loese, Kuhn & Langer bought the fruit last year. The fruit will be picked, packed and turned over to the firm from San Jose. E. P. Scott is agent here for Mr. Cozzens, and is now receiving the cherries at the packing-house. The sale includes all the fruit of Rancho Chico except the berries and nuts.

#### El Dorado.

**FRUIT BUYING IN EL DORADO.**—Republican, May 14: A number of Los Angeles fruit-buyers were in Placerville, and completed arrangements by which they will purchase fruit here during the season, beginning about the 1st of July. Mr. Barnett states that he expects to ship 150 carloads of fruit from the depot during the season from what he has seen of the crop.

#### Kern.

**FRENCH PRUNES—EXPERIMENTAL PLANTING.** Bakersfield Californian: This industry is new in this valley as yet, and it is interesting to note down the experiences of a careful observer. B. L. Bundage has set out several acres this season, six and one-half of which had to be made by filling in an old slough, and, to begin with, the trees in the made ground are the hardiest and thriftiest of all. From yearling stocks set out last February, there is already a growth of from 15 to 34 inches, and all of the foliage is of that rich, dark green which betokens sturdy, healthy growth. Of 1800 trees set out, one has been lost, killed by a gopher, which ate off the tap-root and also peeled the bark off of the tree above the surface of the ground. One other stock has not leaved out, but the buds are green and it promises to grow. Three of the stocks laid out in the sun for three days, but then they were heeled and revived by lying in damp ground, for ten days, and are now doing well. The strongest growth thus far appears to be on the south—the sunny, side. Some of the trees have already blossomed and set to young prunes, probably from last year's buds, but these have all been snipped off. The best, thriftiest and hardiest trees so far are those which were budded upon peach roots. Next in vigor of growth come those upon apricot stocks, followed in order by almond, and last of all, by those budded upon the Myrabolan, or wild plum. As an experiment, a number of peach stocks, considered at the time to be of little value, were set in a streak of white sand which runs through the place, and, to the surprise of the owner, they are growing fast and well.

**THOROUGH CULTIVATION INSURES CROPS.**—Delano Courier: The great value of thorough cultivation is noticeable in many places this season. Lands that have had a thorough plowing for a few years past appear to retain more moisture, and the crops on these lands are in much better condition than that on shallow plowed fields. The grain on the Italiane ranches north of town yet looks thrifty, which is but the reward for good cultivation.

**GRASSHOPPERS—HOW TO FIGHT THEM.**—Bakersfield Californian: When once very prevalent in Colorado, a man whose fields were overrun, took the axes and wheels of a hay rake, made a high hood of sheet iron, and beneath it a sort of table, which sloped gradually as he to end very near the ground. Upon this table were some troughs, in which rags soaked in kerosene were placed and set on fire. One horse pushed the machine on the fields. The grasshopper would rise, be caught by the hood, and flutter down into the fire. In this way millions were destroyed. The next year a little red parasite appeared in that region, which fed on grasshoppers, and effectually routed them. The best plan for eradicating them, however, is by using the following receipt: Forty pounds of bran, fifteen of mid-

dlings, two gallons cheap syrup, twenty pounds of arsenic, mix soft with water, and place a tablespoonful beside each tree or vine. Mr. C. J. Barry of Tulare placed a board-walk four feet wide around his orchard, inside the fence, and upon that placed any obtainable kind of green leaves, each sprinkled with a mixture of strychnine, flour and molasses. The arsenical preparation is considered the most effective; and by feeding the hoppers before they get their wings the work of extermination may be confined to smaller spaces. If clover and weeds are sprayed with one ounce of Paris green to five gallons of water, or as strong as it can be used without burning the leaves, feeding upon the sprayed leaves will kill the grasshoppers.

**LARGE GRAIN CROPS.**—Bakersfield Echo: In Tehachapi valley there are now planted in grain 25 sections or 16,000 acres; Cumming's valley 16,000 acres; Brita's valley 3200; Bear valley 3200; in the canyon adjacent to these valleys including Oak creek, say 1600 acres more, making an aggregate of 40,000 acres upon which there is now growing a most promising crop of wheat and barley.

#### Los Angeles.

**HONEY YIELD.**—L. A. Express, May 11th: The honey crop of our mesa and foothill apiaries promises to be the largest for many years.

**HAYING.**—Pasadena Star, May 13: Haying is in progress throughout the valley, and yet there are hundreds of acres not yet ripe enough for the mowing machine. One of the prettiest sights in this season of beautiful outdoor views is that of a field of newly formed hay-cocks seen through the heavy foliage of deciduous and citrus orchards.

#### San Luis Obispo.

**BEAN CLEANING MACHINE.**—Arroyo Grande Herald: At work in the Southern mill and warehouse at the depot is a machine for cleaning small white beans, which is the outgrowth of the inventive power of F. H. Wheelan, manager of the company. The machine consists of a revolving wheel or disk, and as the beans are evenly poured upon the revolving disk, a series of tin screens help to separate the dirt and broken beans from the good. So successfully does it separate the good from the bad that the beans come out in perfect order and absolutely free of dirt or other objectionable substance. The machine is a perfect success and works about four tons a day. It is the intention of the company to build a machine on a much larger scale and of greater power to operate it. Something to clean beans has long been needed, as the dirty condition in which they have frequently gone upon the market has militated against the price and made them a matter of almost sale, but with freedom from dirt it will assist very materially in elevating the price.

**CREAMERY AND CROP NOTES.**—Downey Champion: The Cerritos Ranch Dairy and Creamery, C. E. Mitchell lessee, is at present milking 225 cows. On this ranch, a large acreage of corn, barley, alfalfa and root crop is in the finest condition for a bountiful yield. The barley looks particularly fine. The growth is heavy and the heads large and well filled. The cool, cloudy weather for the past month has been of great benefit to the small grain in this vicinity.

**EXPERIMENTAL STATION TREE PLANTING.**—Pomona, May 14: At the Experimental Station, there have been planted two of every variety of trees, 50 varieties of pears, 21 of olives, 10 of cherries, 14 of prunes, 16 of nectarines, 43 of peaches, 8 of Japan plums, 20 of figs, 75 of grapes, 17 of oranges, 3 of lemons, and 75 of plums. The trees and plants are all doing nicely. The dates are also making a magnificent growth.

#### Placer.

**COUNTY FAIR.**—Auburn, May 14: At a meeting of the County Fair Directors held in Auburn on Tuesday, May 12th, it was moved by Mr. Lardner, and carried, that all premiums not claimed by the first of December, after the fair, shall be declared forfeited and the amount set to the credit of the general fund. The time for opening the next fair was fixed for Tuesday, September 1st, the week previous to the State Fair.

#### San Diego.

**STRAWBERRY RAISING AT SAN JACINTO.** Register, May 14: Strawberries raised in the light, sandy loam composing the soil of this valley grow readily with little care and a moderate amount of water, often bearing profusely the first year. In color, most of the varieties grown here are a bright crimson, the right color of strawberries as we remember the ideal ones of our youth, and not a sickly-looking fruit half ripened. The flavor, which is as a natural consequence contained within this brilliant-hued fruit, is rich and sweet, with the strong indescribable "strawberry flavor."

#### Santa Barbara.

**CROPS AND HELP.**—Santa Maria Cor. Star: The prospect for a glorious hay, wheat, barley and fruit harvest in Santa Maria valley was never better. We hear farmers complaining of the scarcity of help to take care of the coming crops. Young men who, in other localities, or anywhere east of the Rockies, are out of employment, would no doubt do well to make tracks for this section of the golden clime.

**BEAN PLANTING** is carried on in the country round about Guadalupe. In whatever direction we travel we may see broad level fields, almost as smooth as a floor, and in some of the fields a thrifty husbandman driving over it mounted on a bean-planter.—Cor. Graphic.

#### Santa Clara.

**FRUIT PESTS INVESTIGATION.**—S. J. Mercury, May 17: Alexander Crow, Quarantine Officer for the State Board of Horticulture, has been investigating the canker worms and caterpillars which infest some of the orchards, and makes the following statement: The State Board of Horticulture was notified three days ago of the injury to the prune, cherry and apple trees by the canker worm, a species of *anisopteryx*, and a caterpillar, that made their appearance in several orchards three years ago. I made several experiments with washes, etc., but if prompt and effective methods are adopted by the orchardists in infested districts, the worms can be stamped out, as we have a very cheap and effective remedy in Paris green in the proportion of one pound to 200 gallons of water. If two or three pounds of common laundry soap be dissolved by boiling, and added to the solution, it will assist materially in holding the Paris green in suspension. To be effective, the mixture must be constantly stirred in the tank while applying. If this is not attended to, the result will be that some trees will get an overdose and be injured, and others will receive the clear water. Use the best Paris green, and see that all the trees are thoroughly sprayed, and in three or four days the worms will begin to drop. Beating the branches with poles, or throwing dirt over the trees to dislodge the worms is only time wasted, for enough are left in each tree to stock the orchard next season. Three men with a tank, holding from 100 to 200 gallons, carried upon a wagon—one man to pump and two to do the spraying—will treat from 300 to 600 bearing trees per day. If the trees had been treated three weeks ago, the worms would have succumbed more readily to the poison, and considerable damage would have been prevented. Mr. Crow stated in addition that no time should be lost in this matter, as it is very important that the work be done at once, and so effectively that the pests will be completely wiped out of existence.

**A FRUIT COMPANY.**—At the recent meeting of the Directors of the Fairview Farm Evaporating and Canning Company, Col. R. P. McGlinchey of Campbell was elected president; F. Dexter of Saratoga, vice-president; E. Le Queene of Saratoga, secretary; and the Commercial Bank of Los Gatos, treasurer. The drying establishment, owned and operated by the growers, is located in the foothills between Los Gatos and Saratoga.

**AN EASTERN FRUIT-PEST BORER.**—Campbell Cor. Los Gatos Mail: The fruit-growers are being much disturbed by the presence of canker worms in their orchards. This pest is new to this region, and promises to make things lively for us. They are shaken from the trees, and various devices have been contrived to prevent their climbing up the trees again. Some alarm has also been created by the knowledge that some Eastern trees have been planted in the vicinity, which contain Eastern borers, unlike our ordinary borers, and supposed to be more difficult to destroy. This new pest bores into the wood of the tree, and is not as easily found, and is more destructive to the life of the tree. Mr. Preston agreed to examine carefully his Eastern trees and report. A committee was appointed by the Horticultural Society to advise with the County Board of Supervisors as to the best method of destroying these borers before they spread into the orchards. It is to be hoped that active measures will be taken for this purpose.

#### Solano.

**GRATIFYING CROP PROSPECTS.**—Suisun Republican: The crop prospect is indeed gratifying, and farmers are making preparations to garner the same. The prospect for a good yield and fair prices has brought courage to the soul of the Granger. Each day the streets are lined with teams, and large loads of lumber, furniture, machinery, etc., are seen going out in every direction. Things in business circles are resuming their old-time jingle, and everybody looking forward to a prosperous and happy future.

**BEES ON THE RAMPAGE.**—Davisville Cor. Tribune, May 16: The bees, unable to find suitable quarters in the absence of forest trees, are taking possession of chimneys and the openings between the ceiling and siding of dwellings. There are several residences in this neighborhood whose owners are compelled to abandon the use of their fireplaces. In one case, four chimneys are completely blocked, and the puzzled proprietor is at his wits' end. In another case, they have found an entrance beneath the siding, and seven or eight colonies now combine to resent any intrusion upon their right.

#### Stanislaus.

**CROP PROSPECTS.**—Oakdale Leader, May 15: The grain crops are still looking well in this section. The absence of rain during the past month has not had a very good effect on the late-sown grain, but the injury is not very marked. The early-sown and summer-fallowed both look promising, and if the weather continues cool, the yield will be immense.

#### Sutter.

**LARGE WHEAT PLANT.**—Marysville Democrat, May 14: Thomas Clyma, a pioneer farmer of Sutter county, brought in a sample of growing wheat from his ranch at North Butte, and we feel safe in saying that its equal was never produced in that county. The sample was of the Royal Australian variety, and by actual measurement stood six feet and five inches in height. Mr. Clyma says the sample is an aver-

(Continued on page 517.)



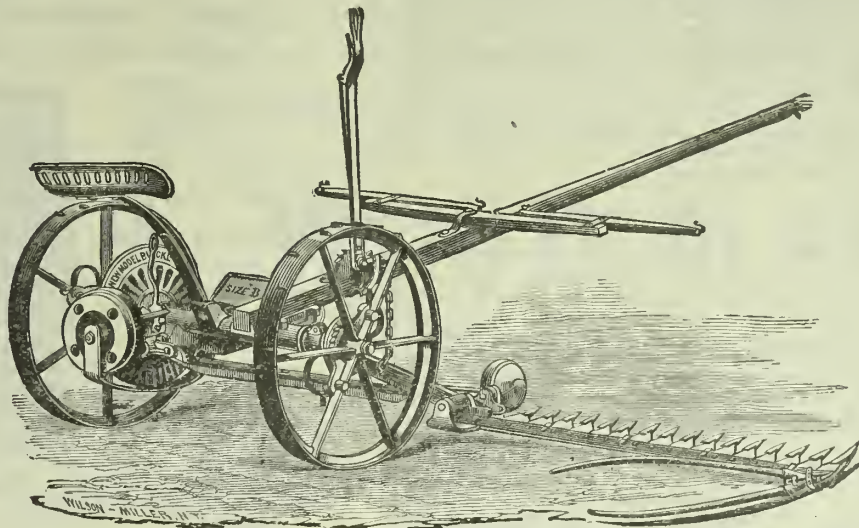
# THE ADRIANCE "GENUINE" BUCKEYE MOWER

Manufactured by Adriance, Platt & Co., Poughkeepsie, N. Y.

BUCKEYE  
GEARED  
MOWERS.

CUTS:

4 FEET 3 INCHES,  
4 FEET 6 INCHES,  
5 FEET.



BUCKEYE  
ENCASED GEAR  
MOWERS.

CUTS:

4 FEET 3 INCHES,  
4 FEET 6 INCHES,  
5 FEET,  
6 FEET.

BEST IN THE WORLD!

## HODGES' NEW STEEL FRAME HEADERS

"TAYLOR" HAND AND SELF-DUMP RAKES,  
"ACME" AND "MONARCH" SWEEP RAKES,  
"SCHUTTLER" FARM AND HEADER WAGONS, ETC., ETC.

WRITE FOR PRICES.

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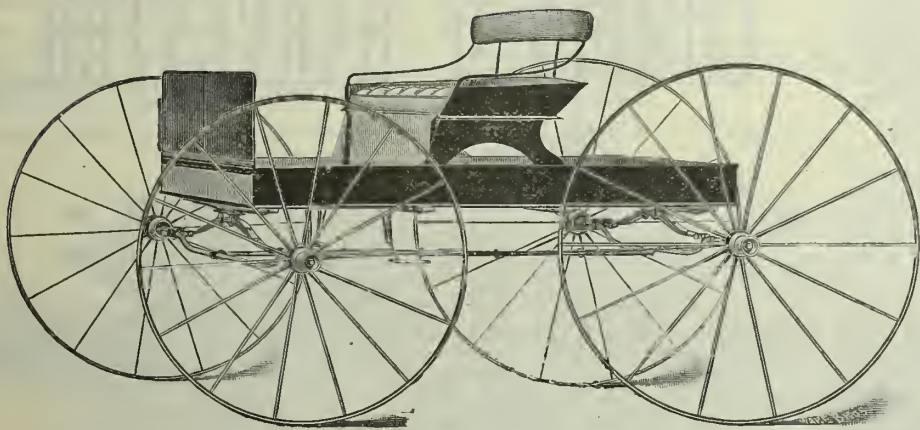
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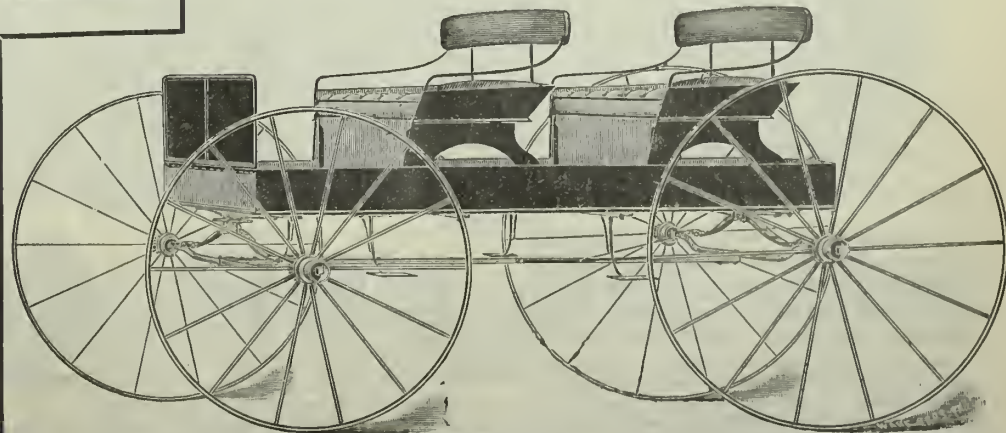
## HANDY WAGONS.



\$57.50.

LOOKS LIKE A GOOD WAGON. IS A  
GOOD WAGON.

ONE SEAT; SARVEN WHEELS; NEAT; COMFORTABLE;  
LIGHT. WORTH THE PRICE. TRY ONE.



\$70.00.

TWO SEATS; SHAFTS; SARVEN WHEELS;

WITH POLE INSTEAD OF SHAFTS; \$75.00.

PUT A BRAKE ON FOR \$10.00. GOOD VALUE FOR  
THE MONEY. CAN'T BEAT THIS PRICE.

ONLY A FEW AT THESE FIGURES. THEY ARE GOOD WAGONS. WE HAVE BETTER.

OUR WAGONS PROBABLY THE BEST. NOBODY HAS ANY BETTER. WRITE US. CALL ON US.

SAN FRANCISCO BAKER & HAMILTON, SACRAMENTO.



## FLORIST AND GARDENER.

### Flowers.

EDITORS PRESS:—Flora among the Romans was the name of the goddess of flowers and of spring. The worship of Flora was one of the oldest manifestations of the Roman religious feeling.

The Floralia, or festivities, in honor of the Goddess were first instituted in 238 B. C., and were celebrated by the women, they being given when the wheat fields were in blossom and were conducted with much beautiful display peculiar to the season of flowers; and at the present day there are but few gatherings in which flowers do not bear an important part. They brighten the beauty of the bride, come like a ray of sunshine into the chamber of the invalid, telling of green fields, blue skies and singing birds, and even death is robbed of part of its terror when loved ones are laid to rest beneath a covering of flowers. To the dweller in the towns a tiny bunch of buttercups or violets comes like a message from heaven, recalling scenes almost forgotten—a low, old-fashioned farmhouse with wide-spreading meadows, orchards that are laden with snowy blossoms, filling the air with sweetest perfume. But in no other State can there be found such a wealth of flowers as grow in this land of the Golden West. Roses (queens of the floral world) that would rival those of Damascus, dahlias and fuchsias that their Mexican ancestors would fall to recognize, while our chrysanthemums would put to shame those of Japan, so much have flowers been improved by cultivation that in the heart-ease, lady's slippers and touch-me-nots, of our grandmothers' day, we scarcely can see any resemblance to the lovely paucity, asters and halsams to be found in our gardens now.

Of wild flowers, there is the buttercup, the children's favorite, which blooms with us some seasons as early as January, and so universal is it, from Maine to California, that it deserves some claim to recognition as a national flower.

Through March and April, the poppy, our State flower, rears its beautiful golden head from among the green, while away to the south more tropical flowers and delicate ferns are to be found, and up in the extreme northern part of our State, among the eternal snows, the snow-flower puts forth its scarlet crest.

No more opportune time could have been chosen by the President to visit us than at this high tide of the California year, but never again will he walk on a bed of roses. With vines and flowers, the humblest cottage is made beautiful, and in this almost tropical climate, they so well repay a little time and trouble.

Flowers are the petted darlings of the vegetable world; they were made to be loved for their beauty alone, and all we ask in return for the love and care we give them is that they be as beautiful as possible. "They toil not, neither do they spin; yet Solomon, in all his glory, was not arrayed like one of these." And flowers are not without their uses, for in the beautiful words of Mary Howitt—

"God might have bade the earth bring forth  
Enough for great and small,  
The oak tree and the cedar tree,  
Without a flower at all,  
We might have had enough, enough,  
For every want of ours,  
For luxury, medicine and toil,  
And yet have had no flowers.

"Then wherefore, wherefore, were they made,  
All dyed with rainbow light,  
All fashioned with supremest grace,  
Upspringing day and night;  
Springing in valleys green and low,  
And on the mountains high,  
And in the silent wilderness  
Where no man passes by?

"Our outward life requires them not—  
Then wherefore had they birth?  
To minister delight to man,  
To beautify the earth;  
To comfort man, to whisper hope,  
Where'er his faith is dim,  
For whose care the flowers  
Will care much more for Him."

Sacramento. FLORENCE DUDEN.

### Artificially Colored Flowers.

[Read by EMORY E. SMITH before California State Floral Society.]

Every now and then some one starts a story of having seen flowers of unusual colors, such as blue roses, red calla-lilies, green violets, etc. These seeming freaks are always a seven days' wonder to those who are not familiar with the method by which they are obtained. For many years it has been a well-known fact that flowers when dipped in certain chemicals would rapidly change colors to such a degree as to be almost unrecognizable as the same variety. The public in general has known but little of the methods employed. Mr. Filpol, a distinguished savant, recently exhibited to the Scientific Association in Paris the results obtained by subjecting flowers to the influence of a mixture of sulphuric ether and ammonia. A quantity of ether is poured into a glass and to this is added a small quantity of liquid ammonia, say one-tenth of the volume. The flowers are then plunged into the fluid and with the most sur-

prising results. Those which are naturally red or violet in color take upon themselves a bright green tint. Flowers, the colors of which are variegated, assume as many different shades; for instance, the upper petal of the sweet pea would become dark blue, while the lower petals would turn to a bright green. White flowers usually assume a yellow color. Red geraniums turn blue and red snap-dragons become brown. Yellow is seemingly the only color which the solution does not affect. The action of the liquid is very rapid, and colored spots can be procured upon the flowers by pouring here and there a drop of the solution. Flowers which are many-colored are sometimes changed to the most remarkable novelties that it would be possible to imagine. After the flowers have been subjected to the liquid they should be plunged in pure water, when they will retain their new tints for several hours, but will gradually assume their natural colors.

### The Gloxinia.

[Read by EMIL KELLNER before California State Floral Society.]

The Gloxinia was named in honor of Benjamin Petrus Gloxin of Colmar (Alsace), formerly belonging to France, now within the boundaries of the German Empire. Monsieur Gloxin was a writer on botanical subjects. It is a genus containing seven species of elegant stove plants, all natives of tropical America. The flowers are variously colored, sometimes rightly belonging to the genus Sinningia, and most of them derived from Gloxinia species.

The Gloxinia is propagated by seed, cuttings of the stem and leaves. Cuttings of shoots may be secured from the old bulbs; leaf cuttings, when the plants are ripened. Artificial manure and liquid manure is beneficial.

The roots should be stored away until spring. The soil to be used should be one part leaf-mold, one part cow-dung (well rotted), one part common soil with some sand. Pulverized charcoal mixed with the soil is an antidote against souring of the soil.

From the commencement of the growing plants, do not water too much; they want, after awhile, plenty of heat and water. Water with tepid water; also take care not to get much water on the leaves of the plant, otherwise they will rot.

Among the varieties mentioned, there are: Gloxinia diversifolia, Gloxinia gesneroides, Gloxinia glabra (erect stems), Gloxinia maculata, Gloxinia multiflora, Gloxinia pallidiflora (pale flower) and Gloxinia speciosa.

### Influence of the Walnut on Neighboring Trees.

EDITORS PRESS:—In your issue of May 9th, I notice you ask for opinions concerning the influence of the walnut on neighboring trees, and as I have seen walnuts and other trees growing in close proximity for more than 20 years, I will say that I have never seen any injury arising to any such trees from any reasons connected with the walnut. It is a common practice here to set out other fruit trees between the rows of walnuts, while young, and after they have borne several crops, and the walnuts have arrived at a profitable age, to remove them and give the space all to the walnut. Trees set this way have never, to my knowledge, shown any had results attributable to the walnut.

Carpinteria. L. B. CADWELL.

Dyspepsia has driven to an early and even suicidal grave many a man who, if he had tried the virtues of Ayer's Sarsaparilla, would be alive to-day and in the enjoyment of health and competence. Sufferer, be warned in season, and don't allow the system to run down.

THE CANADIAN PACIFIC was the first railway company on this continent to control and operate a through transcontinental line from ocean to ocean. It is now the first of the lines to the Pacific Coast to secure an entrance to New York City. The effect of this new route for freight traffic to the Northwest remains to be seen. As it has direct and short water communication between its western terminals and this city and Oregon, it goes without saying that it cannot fail, under existing custom-house regulations, to interfere more or less with the legitimate business with our own roads. A road built almost exclusively by Government aid and run in the interest of its Government must prove a most successful rival to any road built and operated by individuals.

### A PEORIA POINTER.

Mr. J. G. Reuter, prominent Merchant, Peoria, Ill., writes: "The trial box Quin's Ointment has cured Curb ten weeks standing. Send one bottle your valuable preparation." Splints, Spavins, Windpufts, Bunche, wonderful results. Trial box 25 cents, silver or stamps. Regular size \$1.50 delivered. Address W. B. Eddy & Co., Whitehall, N. Y.

AN ordinary transparent glass globe absorbs about 10 per cent of the light passing through it; ground glass absorbs 30 to 45 per cent, and opal glass from 50 to 60 per cent.

### ORANGE PLANTERS

Should read the advertisement of the Aloha Nurseries. The best varieties are offered at rates so low that no one need hesitate about planting for experiment, or for investment in places where the orange is known to thrive.

THE San Francisco and San Mateo Railroad Company has let a contract for 16 miles of steel rails to the Pacific Rolling Mills of this city.

## TO SHIPPERS!

## California Ventilated Barrel

EXCELS ALL OTHERS!

IT IS LIGHTER, STRONGER, MORE DURABLE AND BETTER VENTILATED THAN ANY OTHER BARREL.

This engraving of the CALIFORNIA VENTILATED BARREL makes plain to the practical shipper its points of superiority over the common barrel, which may be enumerated as follows:

It weighs from five to seven pounds less than the ordinary barrel, making a material saving in freight charges.

It costs less than one-half for trimming, and does not require an experienced hand to cooper it.



It is the only thoroughly ventilated barrel made, a very important point.

The heads are warranted not to come out in transit, and no liners are required.

It is stronger and more durable than any other barrel.

Never varies in size, even to the extent of a quart.

—ALTOGETHER MAKING IT—

The Cheapest and Best Barrel on the Market.

It is Made of the Best Quality of Spruce, Woven Together with Copper Wire, And can be furnished in any size desired.

THE CALIFORNIA BARREL IS ADAPTED TO SHIPPING THE FOLLOWING ARTICLES:

Apples,  
Oranges,  
Onions,  
Potatoes,

Sweet Potatoes,  
Dried Meats,  
Bottled Goods,

Glassware,  
Canned Meats,  
Crockery,

Eggs,  
Poultry,  
Walnuts,  
Almonds,

And Vegetables of All Descriptions.

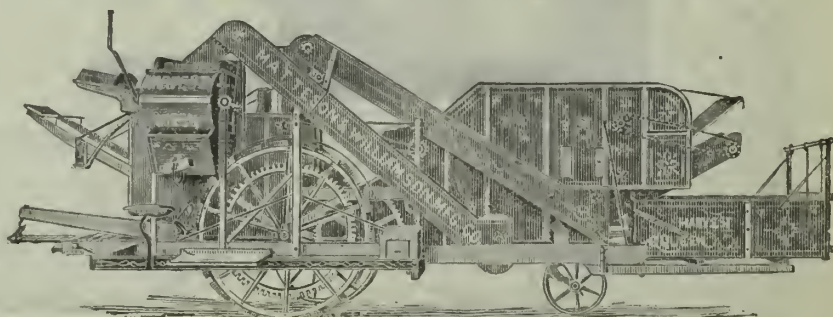
A factory making these barrels is now in operation in San Francisco, with a capacity of 4000 barrels a day. The success of the barrel is almost unprecedented, and it is bound to become the package in a very short time. EVERY ONE USING IT IS ENTHUSIASTIC IN ITS PRAISE. IT HASN'T A FAULT. When shipped in knock-down form, about 2500 barrels can be placed in a single car. Special rates given on car lots. WRITE FOR PRICES AND PARTICULARS.

California Ventilated Barrel Co.,

No. 403 MARKET STREET, - - - SAN FRANCISCO, CAL.

FACTORY: N. W. Cor. Powell and North Point Streets.

## The Harvest Queen COMBINED HARVESTER.



The Lightest Draft Harvester in the Market.

ENDORSED BY ALL FARMERS AND RANCHERS. SATISFACTION GUARANTEED. NONE EVER RETURNED.

### POINTS OF MERIT:

FIRST—Having two pivot wheels on the ground enables it to turn square corners like a mowing machine.  
SECOND—All of the frame work about the cylinder is the best of oak lined with sheet steel and put on with screws. Other parts built of the best of material and painted inside and out.  
THIRD—The driver is NOT isolated by a ladder from the machine, but is safely seated on the separator where he can hear and see the working of the machine and drive to suit.  
FOURTH—The new cleaner put on last season works perfectly.  
FIFTH—The machine is so geared that the cleaner, separator or header can be started independently of each other.  
SIXTH—The header is portable. By the use of our supplemental truck we can pass a 16-foot header through a 12-foot gate.  
SEVENTH—The shaftings are all made of steel.

SIZES, 10 TO 16 FEET.

Send for Price List.

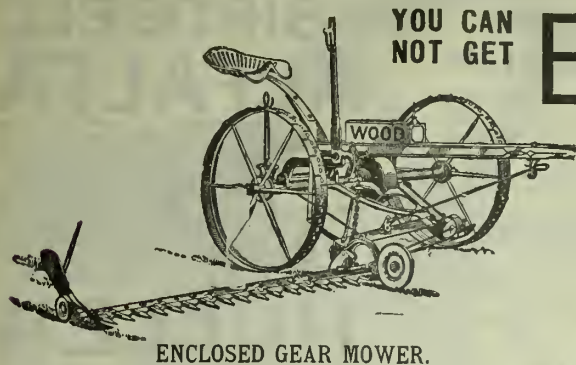
With all our Machines we furnish Straw Dump and Header Truck separate from Machine. Machines delivered on board cars or b'at.

The Matteson & Williamson Mfg. Co.,

MANUFACTURERS OF ALL KINDS OF AGRICULTURAL IMPLEMENTS,

Office and Works, - - - No. 370 Main Street, STOCKTON, CAL.



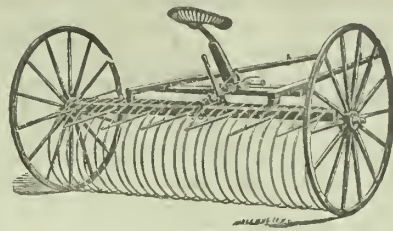


ENCLOSED GEAR MOWER.

YOU CAN  
NOT GET

# Blood from a Turnip!

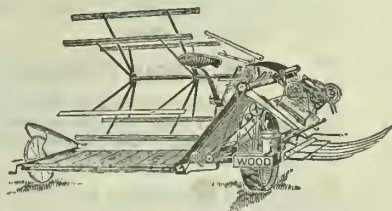
Nor can you explain WHY so many  
Blue Ribbons, Field Contests and  
Sweepstakes are won and being  
won, in every land, by the



WALTER A. WOOD RAKE.

## WALTER A. WOOD MACHINES

This Binder has only one Draper.  
It won the eleven great Australian  
field trials of last October, Novem-  
ber and December. By actual test  
it is the best in the world.



Unless you concede their great merit and unequaled superiority, in  
every way, over all others.

### AN EXTREMELY BIASED INDIVIDUAL

Might say: "Oh, of course the Wood's machines always take first  
place, and that sort of thing, but

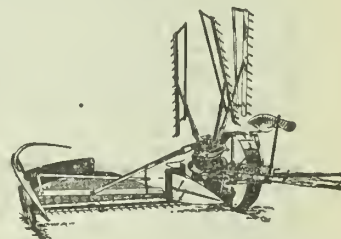
### What Do the Farmers Think of Them?"

**STRAWS THAT SHOW:** 875,549 Walter A. Wood machines have been made and sold. The Largest Sale in the World.  
The demand for them increases year by year, as they become better known. There were made  
and sold in 1888, 54,026 of these machines, and in 1889, 66,069, last year, 82,970! This year they are better than ever.

FOR FURTHER PARTICULARS, ADDRESS:

**FRANK BROTHERS, WALTER A. WOOD, President,**  
DEALERS IN FARM MACHINERY,  
33 AND 35 MAIN STREET, SAN FRANCISCO. PORTLAND, - - OREGON.

AGENCIES FOR THE SALE OF MACHINES AND REPAIRS AT ALL PRINCIPAL POINTS.

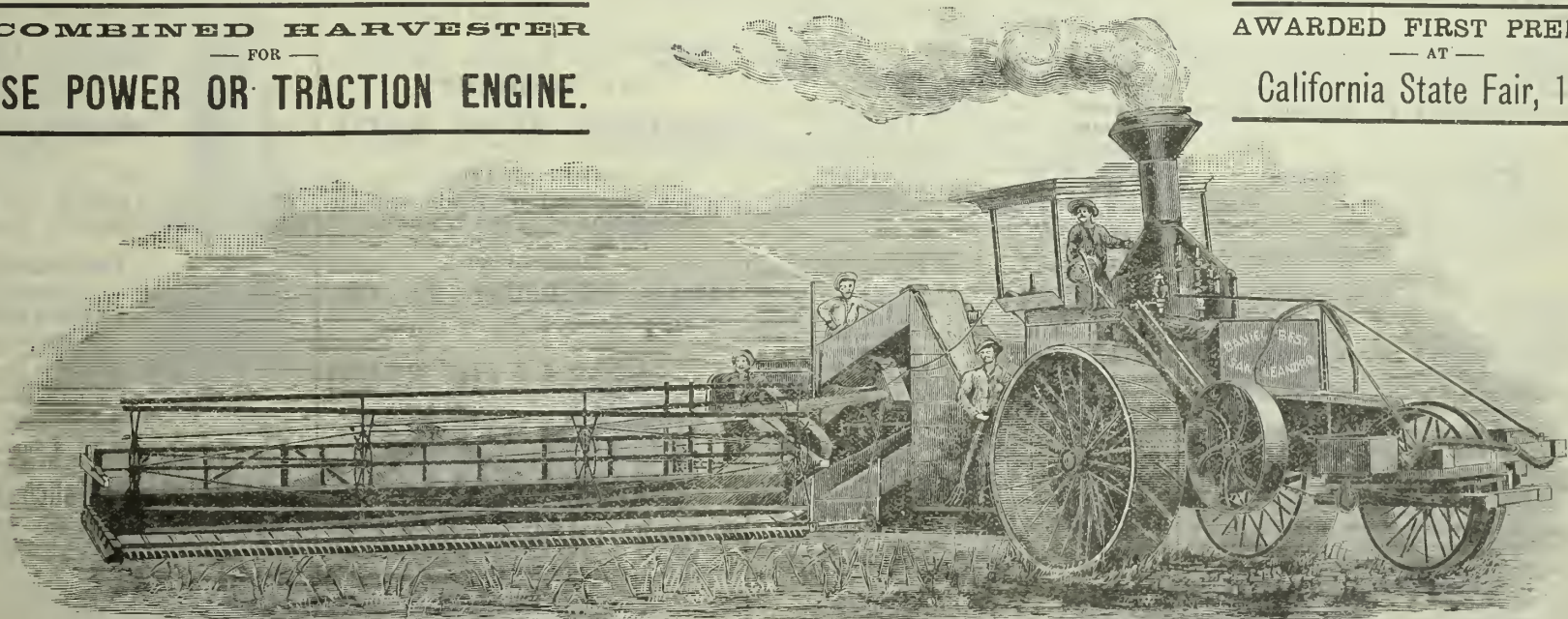


LIGHT ENCLOSED GEAR REAPER.

## CALIFORNIA'S TRIUMPH!

A COMBINED HARVESTER  
— FOR —  
HORSE POWER OR TRACTION ENGINE.

AWARDED FIRST PREMIUM  
— AT —  
California State Fair, 1890.



## Daniel Best's New Steam Harvester.

SHOWN AS AT WORK IN THE FIELD.

Improved for season of 1891 with all latest improvements,  
including Best's Peerless Grain Cleaner.

All sizes made to order, from 14 to 40 feet.

As a Steam Traction Harvester, Straw, Wood or Coal can be  
used for fuel.

These Steam and Horse Power Combined Harvesters were  
run successfully all last harvest, giving entire satisfaction in all  
ways in grain in every condition.

SEND FOR NEW CIRCULAR. For further informa-  
tion, prices, etc., address

DANIEL BEST, San Leandro, Cal.



## THE ORNITHOLOGIST.

## Song Birds from Japan.

Of the beautiful bird known as the Japanese nightingale, Eastern sun-bird, or Persian bulb, the author of the "Book on Birds" remarks that it is an inhabitant of the Oriental countries, where large flocks dart among the trees of the groves and forests. They are favorite birds even in their own countries for their delightful, mellow calls, dashing movements and flashing colors. The Eastern countries are noted for breeding gorgeously-hued birds, but no bird imported from there combines the attractive qualities of this universal little favorite.

This nightingale is about five inches and a half in length. The upper parts of the body are brownish olive; the breast and throat are a brilliant shade of orange; the wing feathers are bronzed-colored, tipped with orange; the tail feathers black barred with white feathers; the beak is long and slender and of the same brilliant color as the breast; the eyes are large, black and very expressive, and surrounded by a ring of white.

The song is a curious combination of sprightly, mellow notes, which are uttered with such precision and in such clear tones that the hearer thinks he is listening to a chorus of wild songsters, each pouring forth his best songs in his endeavors to outdo all others. The song can be described partially by saying it combines the beautiful, plaintive tone of the English nightingale and the sprightly notes of the bobolink. His joyous warble is heard at all hours of the day and never becomes monotonous.

Insectivorous in its habits and affectionate in its nature, this bird loves to build its nest near the habitations of man and can be easily tamed and become a household companion. A few days before he died John F. Swift wrote me from Tokio, Japan, expressing his delight that there was under consideration the introduction of singing birds into California, and suggesting that perhaps it might be well to import some from Japan, more especially recommending a species of nightingale said to be identical with the bulb of Persia, easily obtained and susceptible of being trained in its song.

This letter I gave to the press. It was very favorably commented on editorially by several journals, and the Japan Gazette expressed a hope that the suggestion of Mr. Swift would be adopted, and "the songs of birds serve to keep ever green his memory."

Soon after the receipt of the letter an order was sent to Japan for a supply of the birds, and the last steamer brought the news that 50 pairs have been secured and would be shipped so as to arrive here within a few days. The whole of the first importation of these useful and beautiful birds will soon after their arrival be sent to various places in the interior, there to be let loose, with the hope that the good wishes of the editor in Japan be fulfilled and that this gift to California be considered as a tribute to the memory of John F. Swift by his friend.

The writer suggests that if other Pacific Coast papers copy the above they make the request that the birds shall be unmolested for a year or two.—H. F. C., in Evening Bulletin.

## ENTOMOLOGICAL

## Summer Wash for San Jose Scale, Red Spider, Fungus, Etc.

The Sutter County Board of Horticultural Commissioners recommend the whale-oil soap and sulphide of potash wash for the summer spraying of deciduous trees infested with the San Jose scale, red spider, yellow mite, etc. The following is Prof. Hilgard's formula, and is used throughout the State, being not only cheap, but easily mixed and quite effective for summer spraying. To accomplish the best results, this wash should be applied after the scale are hatched and while they are crawling on the tree. It is impossible to state the date when this occurs, as it varies according to the season and weather, but it is usually about the first of May in this part of the State. All infected trees should be often examined, and when, with the aid of a magnifying glass, the young scale can be seen crawling on the tree, no time should be lost in applying the remedy.

WHALE-OIL SOAP AND SULPHIDE OF POTASH REMEDY.  
Whale-oil soap (80 per cent strength).....20 pounds  
Sulphur.....3 pounds  
Caustic soda (93 per cent strength).....1 pound  
Commercial potash.....1 pound  
Water to make 100 gallons.

Place the sulphur, caustic soda and potash together in about two gallons of water and boil for at least an hour, or until thoroughly dissolved. Dissolve the soap in the water by boiling; mix the two and boil them for a short time; use at 130 degrees F. in vessel.

Prof. Hilgard recommends, in bad cases of scale and in fighting red spider, an addition of kerosene in the form of an emulsion to the above wash:

KEROSENE EMULSION.  
Kerosene.....1 gallon  
Whale-oil soap.....1 pound  
Water.....1 gallon

Dissolve the soap in the water, and when

boiling hot add the kerosene. Churn the mixture for five or ten minutes with a hand spray pump until it forms an emulsion. If the emulsion is perfect, it will be of a creamy nature, no oil appearing on the surface. Add this to the 100 gallons of spraying material.

The sulphide of potash and the kerosene emulsion are often made up in large quantities and the proper amount added to the whale-oil soap, as required. Keep this wash well stirred when using.

It is very important that the whale-oil soap used should be at least of 80 per cent strength. To test the soap, spread five or ten ounces of it on a tin plate counterpoised on a pair of upright scales reading to ounces, and then dry the whole by setting it on top of a pot of boiling water. The loss in drying will indicate the amount of water in the soap. Thus, if five ounces were taken and one ounce was lost in drying, the soap would be of 80 per cent strength.

R. C. KELLS,

J. C. GRAY.

H. P. STABLER.

Horticultural Commissioners Sutter Co.

## Grasshopper Poison.

EDITORS PRESS:—I have had to give the grasshopper poison recipe quite often of late. A correspondent of the RURAL PRESS July 11, 1885 gives the following:

"Take five pounds middlings, which mix thoroughly with one pound arsenic; then dilute one-half pint molasses with one gallon water and moisten the middlings and arsenic with this, but do not make it too wet, as otherwise it is more likely to bake and harden in the sun. This mixture we drop on small pieces of boards, shingles or shakes, and deposit these along our roads and avenues, preferring this method to dropping a spoonful under each vine, in order to keep the mixture as far away from the vines as possible and as it will draw the hoppers for quite a long distance it is just as effective. We have used the above remedy for about three weeks, and have found it sure death to any hopper that has eaten of it. Wherever we have used it dead hoppers are lying around in all directions."

All of which I know to be true. I notice in the last RURAL PRESS that several neighbor-hoods are threatened with this fearful pest. In those who do not know or have forgotten the above recipe it will be worth more than one year's subscription of your paper. Bran will do nearly as well as middlings. J. W. MACKIE, Tulare, Cal.

BERKSHIRE SALES.—Phil M. Springer, Secretary American Berkshire Association, Springfield, Illinois, sends the following transfers of recorded Berkshires: Radwood Jack 25 993 and Carrie C. 25,994, Andrew Smith, Radwood City, Cal. to C. O. Pendleton, Red Bluff, Cal.; Diamond of Eden 25,770, Henry P. Mohr, Mount Eden, Cal. to A. L. Graham, Haywards, Cal.; Beauty of Eden 26,042, Henry P. Mohr to Daniel Culo, Haywards, Cal.; Captain Cattle 26,039, J. E. Pleasants, Santa Ana, Cal. to J. A. Scarritt, Orange, Cal.; Conqueror 26,047, S. W. Renfro, Collinsville, Ill. to Harry Eniton, Flagstaff, Arizona.

## GOOD BUTTER.

What is the first thing that impresses the buyer when a lot of butter is offered for sale? Its appearance. If one tub is white and lardy-looking, another red, and a third streaked, that butter will bring a low price. The best butter makers use Wells, Richardson & Co.'s Improved Butter Color, and their product is of a uniform June yellow. Give it a trial and you will never be without it.

Gen. L. F. Ross, Proprietor of Mt. Prospect farm, near Iowa City, Iowa, and breeder of Red Polled Cattle, finds Wells, Richardson & Co.'s Improved, the only satisfactory butter color. He writes: "We are using Wells, Richardson & Co.'s Improved Butter Color, and are well satisfied of its merits. After trying many different kinds, we have adopted this as our standard. Our experience goes to show that it is the only color that can always be relied upon to produce a perfectly natural shade."

YEARS ago competition in the way of swift ocean passages was between sailing vessels instead of between steamships. Then it was the "Yankee" clipper beat the world, and the recent passage of the clipper Saint Paul from Queensland to New York in 16 days shows that the making and handling of sailing vessels is not among the lost arts.

## WHY THE BUGGY BROKE.

Owing to poor material in construction, and employment of cheap labor. The "Complete Horse Book" tells where to buy the best Buggy made for the money. Sent for 10 cents, silver or stamps. Pioneer Buggy Co., Columbus, O.

\$500,000

TO LOAN IN ANY AMOUNT AT THE VERY LOWEST market rate of interest on approved security in Farming Lands. A. SCHULLER, Room 8, 420 California St., San Francisco.

\$3,250,000

TO LOAN ON MORTGAGE ON RANCHES AND CITY real estate below market rates. HOWE & KIMBALL, 508 California St., S. F.

## MANILLA ROOFING

FOR FAY'S WATER-PROOF Manilla Roofing, Siding, Ceiling, Sheathing, &c., send 2c for illustrated Catalogues and Samples. J. F. WYMAN, General Agent for Pacific Coast, 204 Market St., San Francisco.

## FOR DYSPEPSIA, Ayer's Sarsaparilla

Is an effective remedy, as numerous testimonials conclusively prove. "For two years I was a constant sufferer from dyspepsia and liver complaint. I doctored a long time and the medicines prescribed, in nearly every case, only aggravated the disease. An apothecary advised me to use Ayer's Sarsaparilla. I did so, and was cured at a cost of \$5. Since that time it has been my family medicine, and sickness has become a stranger to our household. I believe it to be the best medicine on earth." —P. F. McNulty, Hackmau, 29 Summer st., Lowell, Mass.

## FOR DEBILITY, Ayer's Sarsaparilla

Is a certain cure, when the complaint originates in impoverished blood. "I was a great sufferer from a low condition of the blood and general debility, becoming finally, so reduced that I was unfit for work. Nothing that I did for the complaint helped me so much as Ayer's Sarsaparilla, a few bottles of which restored me to health and strength. I take every opportunity to recommend this medicine in similar cases." —C. Evick, 14 E. Main st., Chillicothe, Ohio.

## FOR ERUPTIONS

And all disorders originating in impurity of the blood, such as boils, carbuncles, pimples, blotches, salt-rheum, scald-head, scrofulous sores, and the like, take only

## Ayer's Sarsaparilla

PREPARED BY

DR. J. C. AYER & CO., Lowell, Mass.  
Price \$1; six bottles, \$5. Worth \$5 a bottle.



**HIRES**  
ROOT BEER  
THE GREAT HEALTH DRINK.  
Package makes 5 gallons.  
Delicious, sparkling, and  
appetizing. Sold by all  
dealers. FREE a beautiful  
Picture Book and card  
sent to any one addressing  
C. E. HIRES & CO.,  
Philadelphia.

## How to Make Money

SURPRISING INDUCEMENTS OFFERED TO LADIES and Gentlemen to get up Clubs for our Celebrated  
**TEAS, COFFEES & SPICES.**

Special terms to consumers. Catalogue mailed free on receipt of name and address.

## Great American Importing Tea Co.

52 to 58 Market St., San Francisco.

Agents wanted everywhere.

## TRY WOODBURY'S

## IMPROVED RESIN WASH.

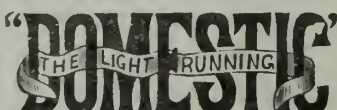
Send for Circular. ONLY 13c a Gallon.

Perfect Removal of Scale and Invigoration of Trees Without Hazard of Injuring Guaranteed.

## Address WOODBURY OIL CO.,

123 California St., San Francisco.

## IT STANDS AT THE HEAD



## DO NOT FAIL to SEE THE "DOMESTIC"

Before Buying a Sewing Machine.

It is the leader in practical progress. Send for price list

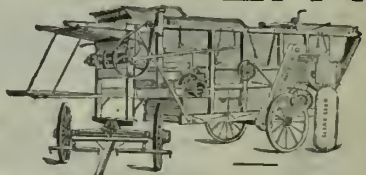
J. W. EVANS, 29 Post St., S. F.



## MAKES THE BEST BREAD.

"DEAD LOCK" GOPHER TRAPS are best. Price 25c a piece or \$3 per doz., delivered. L. F. WHITE & SON, Pomona, Cal.

## THE BIRDSELL ALFALFA



## HULLER

Thrashes, Hulls and Cleans ALFALFA Seed, and delivers it in the sack ready for market.

It gets ALL THE SEED OUT of the Straw, and SAVES IT. and is the only Machine on earth that does. Send for full description and price to

**BIRDSELL MFG. CO.**  
SOUTH BEND, IND.

## SHARPLES IMPROVED Cream Separator.

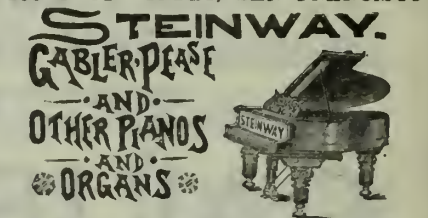


Has taken every first prize where exhibited this year. Twenty per cent cheaper than any other Separator. It is recommended by all commission houses. Hegler & Johnson, Wm. Hutton and J. Warren Tutton have adopted it this spring in preference to all rivals. I now have on hand the small-sized Sharples Improved Separator.

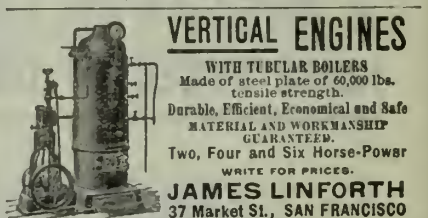
Second hand De Laval's, good as new, for sale cheap.

A. J. VAN DRAKE, Pacific Coast Agent, 203 Fremont St., San Francisco, Cal.

**MATTHIAS GRAY CO.,**  
206 POST STREET, SAN FRANCISCO

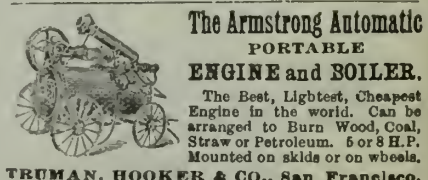


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GABLER-PEASE  
AND  
OTHER PIANOS  
AND  
ORGANS  
**PACKARD Organs.**  
Importer of American and Foreign  
Band Instruments, Accordions, Violins,  
Guitars, Sheet Music, Books, Etc.



## VERTICAL ENGINES

WITH TUBULAR BOILERS  
Made of steel plate of 60,000 lbs.  
tonnage strength.  
Durable, Efficient, Economical and Safe  
MATERIAL AND WORKMANSHIP  
GUARANTEED.  
Two, Four and Six Horse-Power  
WRITE FOR PRICES.  
**JAMES LINFORTH**  
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## The Armstrong Automatic PORTABLE ENGINE and BOILER.

The Best, Lightest, Cheapest  
Engine in the world. Can be  
arranged to Burn Wood, Coal,  
Straw or Petroleum. 5 or 8 H.P.  
Mounted on skids or on wheels.  
**TRUMAN, HOOKER & CO., San Francisco.**

J. F. HOUGHTON, President, J. L. N. SHEPARD, Vice-Pres.  
CHAS. R. STORY, Sec'y, R. H. MACILL, Gen. Ag't.

## Home Mutual Insurance Company,

216 Sansome Street, San Francisco.

INCORPORATED A. D. 1864.

Losses Paid Since Organization.....\$3,175,769 21  
Assets, January 1, 1891.....867,512 19  
Capital Paid Up in Gold.....300,000 00  
NET SURPLUS over everything.....278,901 10

## HOME INDUSTRY.

If you buy

**Mohr & York's**

**CANNED (COOKED) CORN BEEF**

You will get the best and at the same time benefit the producer.

Also manufacturers of BONE DUST.

We can save you Fifty Dollars when you Build. See?

A complete set of Plans to build from, simply state about price of dwelling desired. 25 cts. in stamps. Our book "Beautiful Homes," 25 cts. Our monthly book "The National Builder," 25 cts. Address  
**The National Builder, Adams Exp. Bldg., Chicago, Ill.**

## PARTIES DESIRING, IN GOOD FAITH,

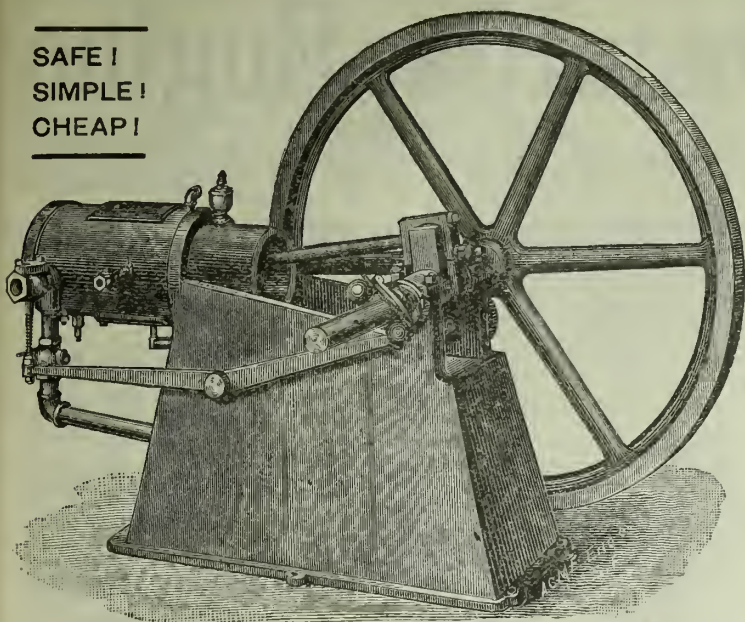
to purchase from the U. S. Quarter-Sections of Sugar Pine Timber Land, should write or apply for information to

STORY & CUTTING, Surveyors and Land Agents, Rooms 26 and 27, No. 420 California St., San Francisco

Best of references furnished.



**SAFE !  
SIMPLE !  
CHEAP !**



## REGAN VAPOR ENGINE.

**NO BOILER. FIRE, EXPLOSION, STEAM,  
ASHES OR ENGINEER.**

Started Instantly Without Even a Match. Will Run on Natural or Manufactured Gas or Gasoline. The Moment Engine Ceases to Run, all Expense Stops.

Upright and Horizontal, Stationary and Marine Engines from 3-4 Horse Power, Upward.

Our Engines are especially adapted for Pumping and Irrigating and Spraying Fruit Trees; in fact, for any use where power is required.

OVER 400 IN USE.

POPE & TALBOT, LUMBER, Office, 204 California Street }  
SAN FRANCISCO, Feb. 25th, 1890.

REGAN VAPOR ENGINE Co.—Gentlemen: The 4 H. P. Vapor Engine I bought of you last May has been in constant use ever since, and has given me entire satisfaction. I have found the engine to be all that you claimed for it, and more too. You can use my name for reference if you so desire. I am, yours truly,

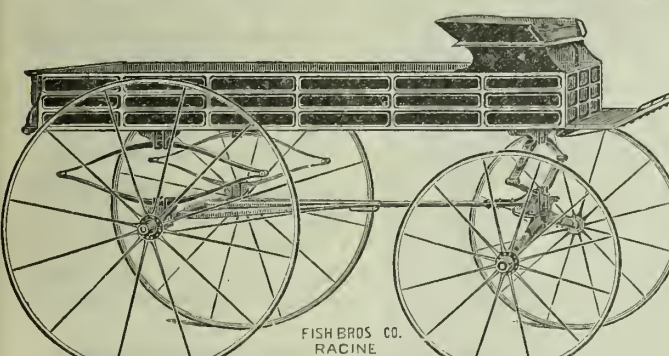
H. TALBOT.

We Carry Thos. Kane & Co's Famous Racine Launches, fitted with our New Compound Engines.

Send for Circular.

### REGAN VAPOR ENGINE CO.,

221-223 First Street San Francisco, Cal.



FISH BROS. CO.  
RACINE  
WIS.

## MISTAKES NEVER HAPPEN

IN BUYING A WAGON

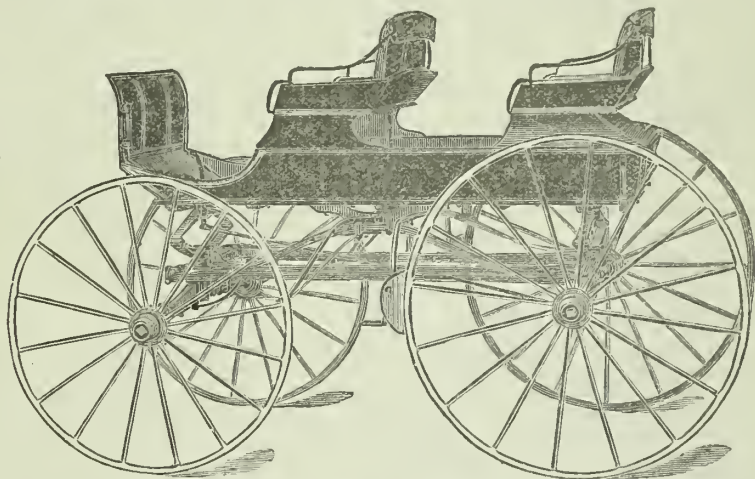
IF YOU GET A FISH BROTHERS.

**BUILT FOR WEAR.**

NOTHING BETTER.

**STEEL AXLES.**

FULLY WARRANTED.



**THREE SPRING DELIVERY WAGONS,**

Concord Steel Axles, Green Bodies, Vermillion Gears, Handsome and Serviceable.

**CALIFORNIA FOUR SPRING WAGONS.**

With wide body to hold butter box; drop end gate. Full leather trimmed. Two full backs and Roller Brake.

**STEEL AXLE FARM WAGONS.**

**FRANK BROTHERS, 33 & 35 MAIN STREET, SAN FRANCISCO, CAL.**

## STOCKTON COMBINED HARVESTER AND AGRICULTURAL WORKS,

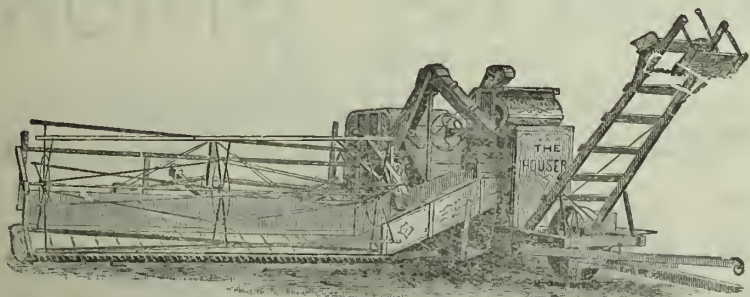
— MANUFACTURERS OF —

**COMBINED HARVESTERS—CHAIN, BELT OR GEAR. MILLER LIGHTNING HAY PRESSES.**

The Houser Belt Combined Header and Thresher  
IS OUR STANDARD MAKE.

THE BEST KNOWN AND MOST POPULAR MACHINE ON THE COAST.

It is Lighter Draft than any Other Make of Combined Harvesters.



WE USE FOR AN EXTRA CLEANER.

**THE STAR DOUBLE SHOE CLEANER.**

THE ONLY SUCCESSFUL HARVESTER CLEANER MADE.

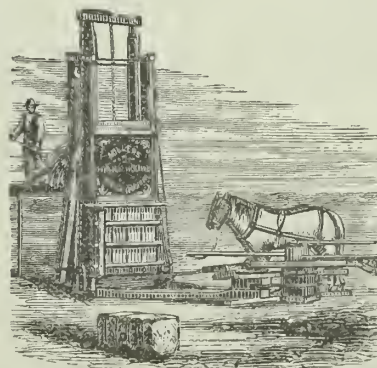
REQUIRES

BUT

**FOUR MEN**

AND

**TWO ANIMALS**



CAPACITY

**30 TONS**

PER DAY.

CAN PUT

**10 TONS**

IN A CAR.

**CARS OF EVERY DESCRIPTION.**

STEAM,  
ELECTRIC, CABLE,  
AND HORSE.

PASSENGER,  
BAGGAGE,  
AND FREIGHT  
CARS.



**THRESHING MACHINES OF GREATER CLEANING CAPACITY THAN ANY OTHER MACHINE ON THE COAST.**

STAR HEADERS, STOCKTON GANG PLOWS, MOLDS AND OTHER EXTRAS.

Boilers and Engines, Structural and Bridge Work, and Repairing of Every Description.

SEND FOR CIRCULARS, AND FOR FURTHER INFORMATION ADDRESS

**S. C. H. & A. WORKS, BOX M, STOCKTON, CAL**



## THE STOCK YARD.

### Preparations for the World's Fair.

Mr. W. I. Buchanan, Chief of the Department of Agriculture of the World's Columbian Exposition, in speaking of the arrangements being made in the way of buildings by the Local Directory for the live-stock and agricultural interests, says that the most ample facilities possible are being planned to accommodate all the various live-stock and agricultural interests in a manner that cannot fail to be pleasing and satisfactory alike to visitors and exhibitors in these departments.

Mr. Buchanan says: "One of the most desirable and interesting features of the Exposition will be the proposed Live-stock and Agricultural Assembly Hall, the erection of which is now assured. This building will probably connect Machinery Hall with the Agricultural Building, fronting on the main court of the Exposition grounds, and will be conveniently near one of the stations of the elevated railroad. It will be a very handsome building and will undoubtedly be the common meeting point for all persons interested in live-stock and agricultural pursuits.

On the first floor, near the main entrance of the building, will be located a Bureau of Information, in charge of attendants, who will furnish visitors with all necessary information in regard to the Assembly Hall and the main Agricultural Building, as well as other features of the Exposition. The first floor will also contain suitable committee and other rooms for the different live-stock associations of every character, where such associations can meet and have their secretaries in constant attendance, thus affording this important industry ample headquarters near the live-stock exhibit and the Agricultural Buildings.

On this floor there will also be large and handsomely equipped waiting-rooms, with fire-places for ladies, lounging-rooms for gentlemen and ample toilet facilities. Broad stairways will lead from the first floor into the Assembly room, which will have a seating capacity of about 15 hundred. This Assembly room will furnish facilities for lectures, which will be delivered by gentlemen eminent in their special fields of work, embracing every interest connected with live-stock, agriculture and its allied industries. When one considers that in this room almost daily there will be lectures delivered, papers read, and discussions had, conducted by eminent specialists from all parts of the world, the importance of such a building for educational purposes is apparent. Taken in connection with the exhibits, this feature will make that part of the Exposition devoted to live-stock, agriculture, and horticulture a complete gathering together of all that an advanced civilization is capable of producing. In the Assembly room the most approved theories will be advanced and explained. On the grounds and in the agricultural and horticultural buildings will be the best illustrations of what can be accomplished when these theories are put into practice. Men who have made the dairy business, for instance, a life-study, will read papers and deliver lectures on matters connected with the dairy; and close at hand, in full operation, it is hoped to have a working dairy, affording a practical object lesson of the improved methods, which have been applied to this industry. And so through all the branches of agriculture and horticulture, the Exposition as an educational means will be both theoretical and practical.

The entire second floor of the Assembly building is given up to committee-rooms and rooms for headquarters for each and all of the different farmers' organizations in existence in this country. It will furnish a definite and pleasant home for all such organizations during the entire time of the Exposition, where each may have its secretary, or other official, constantly in attendance to furnish information and transact other business, and where the members can hold such consultations as they may desire.

Such a building was never erected at any Exposition, and its construction here will show that the Board of Directors purpose affording every facility that they can furnish to aid the great live-stock and agricultural interests of the country. It is confidently believed that this building will present a very busy scene every day the Exposition is open, and that it will prove an immense benefit to the interests it is designed to serve."

The entering wedge of a complaint that may prove fatal is often a slight cold, which a dose or two of Ayer's Cherry Pectoral might have cured at the commencement. It would be well, therefore, to keep the remedy within reach at all times.

#### Don't Fail to Write.

Should this paper be received by any subscriber who does not want it, or beyond the time he intends to pay for it, let him not fail to write us direct to stop it. A postal card (costing one cent only) will suffice. We will not knowingly send the paper to any one who does not wish it, but if it is continued, through the failure of the subscriber to notify us to discontinue it, or some irresponsible party requested to stop it, we shall positively demand payment for the time it is sent. LOOK CAREFULLY AT THE LABEL ON YOUR PAPER.

## Engraving

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## THE RAISIN INDUSTRY.

### A Practical Treatise on the Raisin Grapes, Their History, Culture and Curing.

By GUSTAV EISEN.

This is a book of marked character. It is an attractive volume of more than 200 pages, printed on heavy paper, with wide margins, and is well illustrated and neatly bound. It has won the thoughtful attention of specialists, and called forth the hearty commendation of the newspaper press. Prof. E. W. Hilgard, of the University of California, says: "It is certainly a most timely work, and one that your training and experience have fitted you peculiarly to undertake. I congratulate you and the raisin industry upon the work, in which I recognize from the outset the Germanic thoroughness and a close adherence to facts that do not always characterize such publications." Prof. E. J. Wickson, of the same institution, writes: "I discern in the work a breadth of information and a faithfulness in details of practice which will constitute it the standard treatise on the raisin." Col. Forsyth says: "With your book in hand the inexperienced farmer or clerk can safely engage in raisin-growing with expectation of success from the very start." Says the Fresno Republican: "No work on a technical subject has ever been published that more thoroughly, completely and honestly discussed its specialty than does Dr. Gustav Eisen's work on 'The Raisin Industry.' This valuable book, just out, is published by the H. S. Crocker Company, San Francisco. It is just what it pretends to be, a practical treatise on the raisin grapes, their history, culture and curing." The Rural Press says: "Dr. Eisen's work is broad and scholarly, and yet compact and definite in the development of the subject. It should find a place on the book-shelves of all California horticulturists, and will no doubt go to the uttermost parts of the world." The California makes this reference to the book: "It is a clear, vigorous, free and logical treatise; learned, exhaustive, profound and yet extremely practical and useful." The Marysville Appeal says: "A very valuable contribution to the literature of horticulture is the volume on 'The Raisin Industry,' from the pen of Prof. Gustav Eisen. Among California raisin-growers Prof. Eisen has long been recognized as an authority upon everything relative to their industry." The San Francisco Chronicle says: "In this work the author has performed a much needed task, going into the details of every branch of what has become one of the foremost industries of California. No man better qualified for the enterprise could have been found." The State Horticultural Society, by its committee, reports as follows: "We find Dr. Eisen's work a most valuable treatise upon raisin production in all its branches, historically complete, broad and comprehensive in its scope, accurate in its details and a valuable guide in the practice of the growth of the raisin-grape vine and the preparation of its products for the market, and as such we earnestly commend it to the public." Price Three Dollars, postpaid. For sale by DEWEY & CO., 220 Market Street, San Francisco.

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Forty Acres of good land one mile from St. Helena, Napa County, on road to Rural Health Retreat. Sixteen acres in vines of best varieties, in full bearing, together with about 200 fruit trees; three acres of alfalfa; one acre of garden; remainder of land susceptible of cultivation; at present covered with timber. Place well fenced and cross-fenced. New two-story house of eight rooms and closets, hard finished; a good stone cellar under all, 43x23 feet, furnished with first-class cooperage, capacity 14,000 gals., and all the implements for making wine; a stone dairy; large two-story barn (new) and all necessary farming implements; two wells of good water. A FINE HOME. Price \$8000, half cash, balance on time. Address "Farmer," at this office, or G. M., Box 52, St. Helena, Napa Co., Cal.



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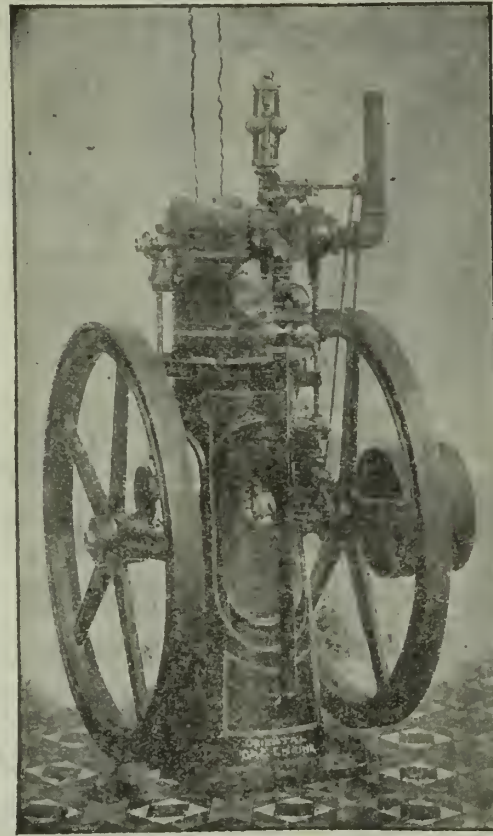
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ONE MAN AND TEAM instead of two. TWENTY ACRES A DAY instead of ten.

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has no nuts or obstructions on top; the obliquely RECESSED GUARDS bolt to finger bar with nuts on under side, leaving upper side of cutter bar perfectly smooth surface. MAIN WHEELS made interchangeable—one wheel fits either side of mower.



NO SIDE DRAFT as CUTTER BAR is carried entirely on Main Wheels.

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D. M. BALDWIN,

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### Agricultural Notes.

(Continued from page 510)

age from his 200-acre field. He has also 100 acres of club wheat on the Dowell place which is almost in as good condition. The heads are large, and are beginning to fill nicely with fine, plump grain.

#### San Bernardino.

**FRUIT CROP PROSPECTS.**—Radland *Citrograph* May 16: Interviews with the following orchardists give a fair idea of the fruit crop prospects in this county. J. B. Grover: "Both the apricot and peach crop promises to be better than last year. Seven and eight year old trees that bore heavily last year will bear equally well this year. Older trees that were broken down by the heavy crop last year will have two-thirds of a crop this year. Royal apricots promise to be unusually fine." Dr. Wm. Craig: "Apricots and peaches will give a heavy crop, with the exception of the Moorpark apricot, which will be very light. Nectarines promise well, and the plum trees are full of bloom. In a general way, I should say, the outlook for deciduous fruits is good. G. H. Crafts: "Apricots promise to be a little short; some varieties will bear well, and others will be scant. The peach apricot, that bore lightly last year, will give a heavy yield this year. The peach prospect is No. 1; there has been no onr leaf, and the season such as to insure an extraordinary crop. Prunes have bloomed well, but it is too early to say what the crop will be." J. C. Canterbury: "Apricots in the Highland section will be good, but peaches will not be so good as last year. In San Timoteo the apricot crop will be small. The seedling peaches, that did poorly last year will have a fair yield." James Bloch: "The prospect is good for both apples and cherries, although the trees were about ten days later in blossoming than usual. The first cherry blossoms this year appeared on March 18th and the first apple blossoms on April 20th. There was a two inch fall of snow on my ranch on April 18th, but the thermometer behaved itself and no damage was done. Cherries promise especially well." W. E. Shiley: "The apple and cherry crop will be fine—the prospects are good. My trees are young; in fact, I have just begun planting, but the older orchards will give a splendid crop." O. R. Paine: "Royal and peach apricots will be too good, while Moorpark apricots will be poor. Peaches promise a good crop. I can not say about prunes, as I have not noticed the trees. Orange trees were never fuller of bloom than this year." Byron O. Clark: "I can't say as to the crop in this section, but in the San Gabriel valley peaches are looking well and apricots and prunes will give a good yield. Deciduous trees blossomed nearly a month later than usual. If the weather is warm the fruit will ripen at the usual time, though if the season should be cool the crop will come into market late."

#### Tulare.

**FRUIT PEST.**—Hanford *Journal*, May 12: N. W. Motheral has returned from a trip to Bakersfield. While on the train coming back, he learned that the orchards and vineyards in the vicinity of Poso were suffering very much from an attack of bugs. A large black bug is doing great damage there to vines and trees, eating off the leaves and branches. Grasshoppers and squirrels are also very destructive, so that between the three pests the horticulturists of Poso are having a hard time of it. Mr. Motheral has requested parties to send him samples of the bug, so he can give a close investigation to his appearance and habits.

The grain crop all around Exeter is looking very well, considering the dry weather. It is filling well, and with reasonably cool weather will make from four to ten sacks per acre on all land that has been well plowed, and the farmers are putting their machinery in order and otherwise getting ready for the harvest. Most of the young orchards planted the past winter have started nicely, and are making a vigorous growth. The exception is where parties sent to other parts of the State for their trees, and from some cause (probably not properly packed and become too dry en route) only a part of them have started to grow. Orchardists should avoid that mistake in the future as much as possible, and patronize home production. —*Exeter Cor. Times*.

**SMOKED HIS APRICOTS.**—*Visalia Times*: The apricot trees in the Briggs orchard are so heavily laden with fruit that it is breaking the limbs. The Canty Bros., who have a lease on the orchard, took the trouble of smoking the orchard on frosty nights, which was done at small cost, and are now to be rewarded with a good crop of fruit that will command top prices, as apricots will be scarce this season. There will be a larger crop of all kinds of fruit in the Briggs orchard this season than was harvested last year.

#### Yolo.

**SUGAR BEET PLANTING.**—*Esparto Independent*, May 14: Half a dozen persons in this vicinity have already procured sugar beet seed and have either planted it or intend to do so in a few days. While this will probably be sufficient basis upon which to predicate an opinion (considering the lateness of the season), it would be better to have more seed planted, so that the different quarters of this valley may be tested and full justice done its various soils and conditions.

**RECLAIMING BOTTOM LAND.**—*Wheatland Four Corners*: In the years past, acres of rich bottom land were covered with trees and brush, and the farmer satisfied himself with farming

but a portion of his ranch. Even such portions as they put in crops were not attended to properly; rank grass and weeds were allowed to grow along the roadside and fences, and too much land was left uncultivated in corners and out-of-the-way places. Now everything is different; the patches of willows have been removed and the weeds by the fences and roadsides are carefully kept down; every available foot of land is planted, and as a consequence, the bottom presents an appearance of thrift and cleanliness. As the result of more careful planting and unstinted cultivation, the crops present a far thriftier appearance, and the farmer, too, seems to take more pleasure in his work. We do not hesitate to say that the crops will be greater this year than any year previous.

#### NEVADA.

**CATTLE NOTES.**—*Reno Journal*, May 12: Beef cattle seem to be in demand throughout the country. Those shipped to Chicago from Lovelocks by Sibbald and Savage netted over \$45 per head, and there is a market for all that may be shipped. Bees are scarce in Washington, too, and George Wright is here from Puget Sound, buying all the fat cattle that are for sale. Mr. Wright bought eight carloads from G. W. Mapes and ten carloads from F. J. Frey for shipment to Puget Sound, and he went to Lovelocks to buy all the fat cattle Captain Marzen has for sale. It is a relief to cattle men to know that they are no longer dependent upon the San Francisco market, and that they can ship their heaves north to Portland or Puget Sound or east to Omaha and Chicago and get better prices for them than in San Francisco. Mr. Wright is paying 6½ for good cattle delivered at Reno.

#### List of U. S. Patents for Pacific Coast Inventors.

Reported by Dewey & Co., Pioneer Patent Solicitors for Pacific Coast.

FOR WEEK ENDING MAY 12, 1891.

- 452,333.—STREET RAILWAY RAIL AND PAVEMENT.—P. Bargon, S. F.
- 452,174.—GAS ENGINE ATTACHMENT.—M. M. Barrett, S. F.
- 452,023.—DRAIN PIPE FOR BUILDINGS.—J. L. Crittenden, Oakland, Cal.
- 452,102.—FRUIT-PICKER.—Amalea Fogeli, Nevada City, Cal.
- 452,223.—HOUSE DOOR LETTER BOX.—Emma C. Hudson, Seattle, Wash.
- 452,184.—POWER STREET PAVING MACHINE.—F. A. Huntington, Oakland, Cal.
- 452,106.—WEATHER STRIP.—A. La Jeunesse, Alameda, Cal.
- 452,233.—CLOTHES DRIER.—J. McKinnin, Spokane Falls, Wash.
- 452,348.—BEDSTEAD TABLET.—C. H. Murray, Portland, Or.
- 451,949.—SAFETY GRIP BRAKE FOR CABLE CARS.—C. E. Naylor, S. F.
- 452,283.—HYDRAULIC AIR COMPRESSOR.—W. R. Phillips, Seattle, Wash.
- 452,112.—RAZOR STROP.—M. E. Reilly, Montebello, Wash.
- 452,284.—DRIVING CALK.—M. E. Reilly, Montebello, Wash.
- 452,084.—DOOR MANIPULATOR.—F. Schmitz, S. F.
- 452,091.—TREATING CONDUCTORS.—J. B. Williams, Oakland, Cal.

The following brief list, by telegraph, for May 19 will appear more complete upon receipt of mail advices: California—Ulrich Bachmann, San Francisco; apparatus for impregnating liquid with gas; Conrad Boller, San Francisco, folding bed; Charles H. Coffin, San Francisco, three-wheeled vehicle; Charles C. Davis, Los Angeles, portable burglar alarm; Henry R. Elliott and E. L. Bemis, Los Angeles, suspenders; William R. Finch, Eureka, breech-loading gun; Adam W. Gillfillan, steam boiler alarm; August Harding, Oakland, explosive engine; Charles P. Harris, San Francisco, game puzzle; Mary C. C. Hartman, Redding, steamer; Byron Jennings, San Jose, assignor of one-half to J. Brusie, Oakland, electric insulator; Byron Jennings, assignor of one-half to J. Brusie, Oakland, insulator holder for electric railways; Joseph F. Menlray, assignor of one-fourth to J. T. Delaney, San Francisco, desk and seat support; William A. McFarlane and S. A. Barrett, San Bernardino, water gauge; Austin D. Moore and A. K. Green, San Francisco, faucet; J. J. Pfister, San Francisco, athletes' supporter; George H. Tietjen, San Francisco, stenciling machine; Walter R. Webster, Pine Grove, closing device for water-closet lids; Walter R. Webster, Pine Grove, spring hinge; Joseph S. Whitcomb, San Francisco, excavating apparatus; Alfred L. White and D. L. Miller, Suisun, automatic pumping apparatus; James B. Williams, Oakland, insulated electric conductor; John J. Spelker, Sacramento, remedy for rheumatism, neuralgia and headache.

Oregon—Frank Vatter, Marshfield, apparatus for preserving pils.

Washington—Edward W. Mitchell, Spokane Falls, assignor of one-fourth to R. Parker, J. H. Stearns and B. F. Sutton, Brooklyn, N. Y., conductor for electric railways.

**ACKNOWLEDGEMENT.**—We are indebted to the Oregon Immigration Board for the view of Mount Hood presented in this number. This Board is maintained by the business men of the city of Portland. It is composed of ten commissioners chosen from among, and is supplied with funds by regular monthly contributions from the business men of the city. It has no lands for sale and does not act as agent in the purchase or sale in any kind of property, the procuring of situations or the floating of any kind of enterprises. Its sole object is the giving of reliable information as to the city of Portland and the Pacific Northwest. Information will be furnished free of charge to all applicants.

#### Unitarian Literature

Sent free by the CHANNING AUXILIARY of the First Unitarian Church, cor. Geary and Franklin Sts., San Francisco. Address Mrs. B. F. Giddings as above.

[From the Marin County Journal.]

#### Present to the President.

San Rafael did not get a visit from President Harrison, but, through one of her most prominent citizens, she got his ear. Saturday evening, May 2d, Mr. William L. Oge was introduced by Hon. W. W. Morrow, and presented the President with two elegant *satin de Luze* sections of "Picturesque California," and a portfolio of *satin duplicates* of full-page plates in the work, which were received by him with expressions of the highest appreciation. Mr. Oge happily voiced the sentiments of our people in his presentation remarks, which were as follows:

**Mr. President:**—It seems to me a grand tribute to the genius of American Government that a man may come, as I now come, simply as a citizen of this great commonwealth, with any proper message, to you, the highest dignitary of the greatest nation on the face of the globe. Though I come only in the name of one mercantile house, I'm sure I represent in spirit thousands of business men, when I say, we are glad and thankful for your visit.

Since you set out from Washington, it has been the prayer of all hearts that your tour of inspection and friendly visitation might be a great blessing, especially to the South and to this far-Western shore, and to the official and personal good of yourself. You will pardon the suggestion here, in your presence and that of your Cabinet officers and of these Congressmen, and let me venture the query: "Why should not such visitation at suitable intervals be made a part of the official duty of the Chief Executive of this great country?" How else may the head of the nation so accurately know the various parts of the vast domain, how so surely catch the spirit of the people? You have so many times been told, "We're glad you came," that, although, as you facetiously said at the banquet last night, "Californians are averse to telling the truth," I fancy you begin to believe us, at least in this one refrain.

It has occurred to my business associates and myself that selections from an art work published by us, entitled *Picturesque California*, may prove a not unwelcome souvenir of your most welcome visit among us. Its theme is California and the Pacific Slope, as portrayed by our foremost landscape artists and most effective writers, in whom and whose work I know you are deeply interested. I refer to our own part in the work only to say that from first to last it has been a labor of love. And, although a business enterprise, we beg to say it is also an expression of patriotic devotion on the part of artists and writers as well as on our part—a tribute of loyalty and love for California. In this little offering to you we have chosen such parts of the work as represent portions of the State and coast which the rapid flight of your journey has deprived you of seeing.

Permit me to say, in conclusion, that I believe in California; in the California of to-day, and in the California of the future. With such material resources as make it easy to gain ample livelihood and still have time for culture; with climate and surroundings inviting to outdoor life and tending to perfect health of body and vigor of mind; with the grandeur of mountains and the sublimity of ocean forever before the eyes of all who will see; with crystal lakes away up toward heaven, reflecting Italian skies; with flashing rivers and roaring cataracts; with glorious forests and smiling valleys; with endless profusion and variety of fruits and flowers all the year—their beauty inspiring the æsthetic sense; with such wealth of beauty and wonder and majesty—so much to quicken the mind and fire the spirit and broaden the heart and life of man—with all these influences, it seems to me that if we Californians prove in any sense worthy of our fair heritage, we should achieve a supremacy in literature and art and song like that of Greece in the days of Pericles! Why should there not be developed here as grand a civilization as theirs?—aye, better; better by so much as Christianity is better than Paganism; grander because of 19 centuries of enlightened progress!

We beg, Mr. President, that you will accept our little offering with our sincere and loyal regard.

#### Scientific and Educational Lectures.

The following is a partial list of subjects which Rev. John Dickinson, of University P. O., Los Angeles Co., is prepared to treat:

1. A Hurried Glance at Mother Earth.
2. A Closer Look at the Earth's Crust.
3. Minerals—Their Chemistry and Geometry.
4. The Moon.
5. The Geology of the Stars.
6. Evolution—What, Whence, Whither?
7. Some Readings from Nature's Great Stone Book.
8. A Winter in the West Indies.
9. Science Teaching in Schools.
10. Literature Teaching in Schools.
11. Biology. (One, two, three or four lectures.)
12. Physical Conditions of Success in Teaching.
13. Psychology as Related to Physiology.
14. Botany in the High School.
15. Zoology in the High School.

The first eight numbers are better adapted for evening public lectures, and are of general interest. The remainder are more suitable for special institute work.

Knowing Mr. Dickinson (who is a brother of the celebrated lecturer, Anna E. Dickinson,) long and well, we would recommend county or city school superintendents, lecture committees, Chautau-

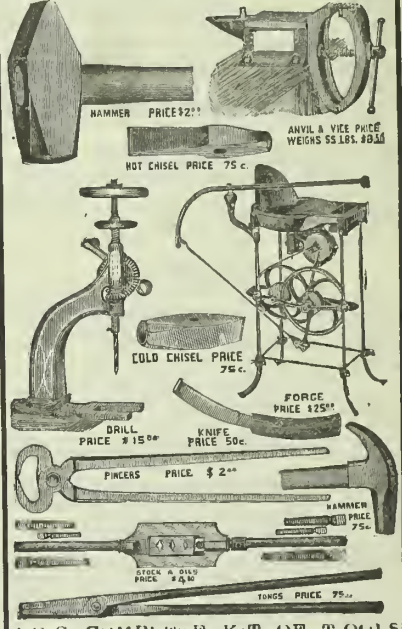
qua Circles, or other persons who may desire single lectures or courses of lectures on scientific subjects, to correspond with him for further information.

#### Remarkable Springs.

Among the most beautiful and healthful summer resorts in California, Anderson Springs stands at a high notch. They have been kept without change of proprietors or conductors probably longer than any similar establishment in Central or Northern California. We have often visited them and enjoyed their comfortable, wholesome resort, which we consider unsurpassed in California for homelike table and kind attentions. The magnificent natural park aromatic puffing steam baths, hot and pure and cool water, large and beautiful brook which rushes past the hotel, swimming baths, and other desirable connections with this charming and most desirable place, make it one of the best resorts we know of.

**CREAM-SEPARATOR AGENCY.**—Mr. A. J. Van Dyke, 203 Fremont St., this city, succeeds E. D. Sharples as agent for the Improved Sharples Cream Separator. Orders for Separators, parts, fittings, etc., will meet with prompt attention. Circulars and all information will be sent upon application.

**MARRIED.**—George L. Everett of this city, commercial editor of the *Alta*, was married, on Thursday last, to Miss Jennie C. Baldwin of Danville, Contra Costa county. The newly wedded pair will reside in their new home on Twenty-third street in this city. —*Oakland Enquirer*.



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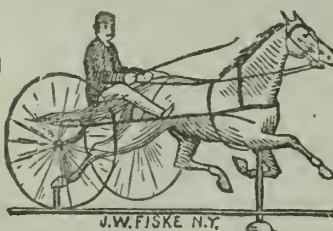
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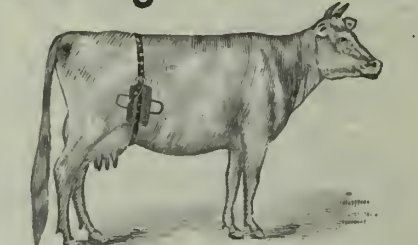
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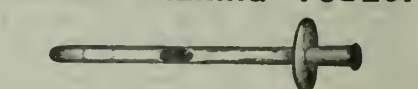
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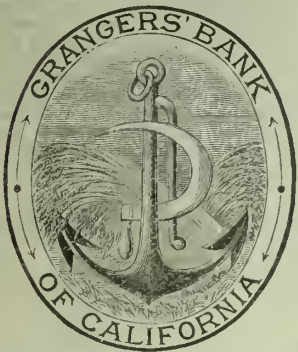
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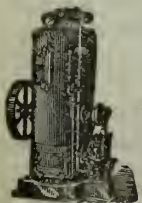
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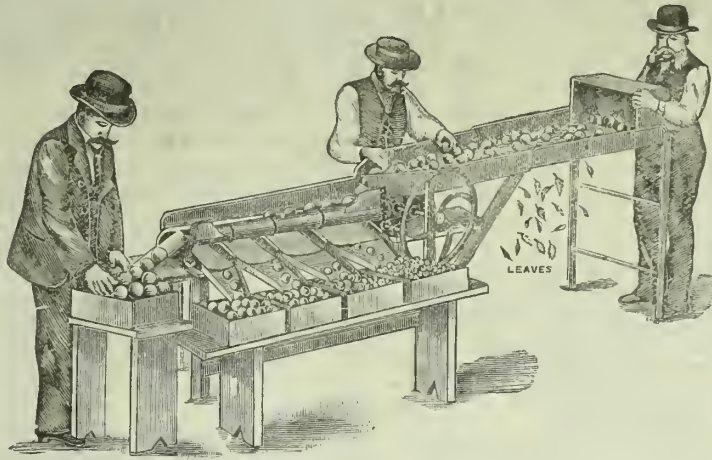
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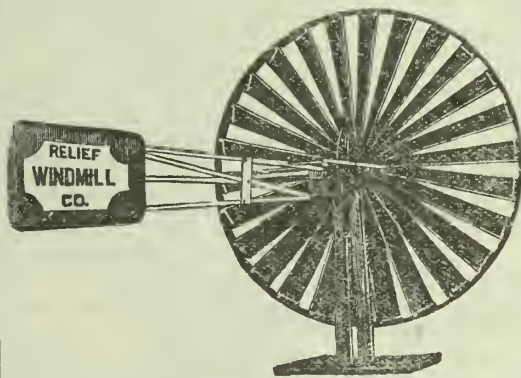
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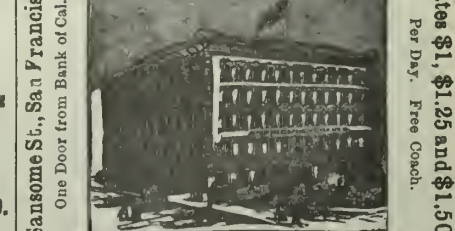
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## S. H. MARKET REPORT

## Market Review.

## DOMESTIC PRODUCE, ETC.

SAN FRANCISCO, May 20, 1891.

Cool weather the past week was in favor of maturing grain crops, and it also tended to keep fruits from ripening too rapidly. Market prices for farm products in general have been well maintained. The local money market has ruled fairly easy. In cereals trade is only restricted by light supplies. In the East and Europe the wheat markets have fluctuated, changing daily according to the weather. The following is to-day's cablegram:

LIVERPOOL, May 20.—Wheat—Steady. California spot lots, 8s 7d; off coast, 44s 3d; just shipped, 44s 6d; nearly due, 44s; cargoes off coast and on passage, turn dearer; Mark Lane wheat, firmer, weather in England, showery.

## LIVERPOOL WHEAT MARKET.

The following are the closing prices paid for wheat options per cwt. for the past week:

	May.	June.	July.	Aug.	Sept.	Oct.
Thursday.....	86 1/2	86 1/2	86 1/2	87 1/2	87 1/2	87 1/2
Friday.....	86 1/2	86 1/2	86 1/2	87 1/2	87 1/2	87 1/2
Saturday.....	86 1/2	86 1/2	86 1/2	87 1/2	87 1/2	87 1/2
Sunday.....	86 1/2	86 1/2	86 1/2	87 1/2	87 1/2	87 1/2
Tuesday.....	86 1/2	86 1/2	86 1/2	87 1/2	87 1/2	87 1/2

The following are the prices for California cargoes for off coast, nearly due and prompt shipments for the past week:

	O. C.	P. S.	N. D.	Market.
Thursday.....	44 3/4	44 3/4	44 3/4	Firmer.
Friday.....	44 3/4	44 3/4	44 3/4	Firmer.
Saturday.....	44 3/4	44 3/4	44 3/4	Firmer.
Sunday.....	44 3/4	44 3/4	44 3/4	Firmer.
Tuesday.....	44 3/4	44 3/4	44 3/4	Firmer.

## EASTERN GRAIN MARKETS.

The following shows the closing prices of wheat at New York for the past week, per cental:

	Day.	May.	June.	July.	Aug.	Sept.	Dec.
Thursday.....	190 1/2	188	181 1/2	176	176 1/2	176 1/2	176 1/2
Friday.....	190 1/2	188	181 1/2	176	176 1/2	176 1/2	176 1/2
Saturday.....	190 1/2	188	181 1/2	176	176 1/2	176 1/2	176 1/2
Sunday.....	190 1/2	188	181 1/2	176	176 1/2	176 1/2	176 1/2
Tuesday.....	190 1/2	188	181 1/2	176	176 1/2	176 1/2	176 1/2

The closing prices for wheat have been as follows at Chicago for the past week, per cental:

	Day.	June.	July.	Sept.	Dec.
Thursday.....	100 1/2	100 1/2	100 1/2	102	102
Friday.....	100 1/2	100 1/2	100 1/2	102	102
Saturday.....	100 1/2	100 1/2	100 1/2	102	102
Sunday.....	100 1/2	100 1/2	100 1/2	102	102
Tuesday.....	100 1/2	100 1/2	100 1/2	102	102

NEW YORK, May 20.—Wheat—\$1.14 for May, \$1.12 for June, \$1.09 for July, \$1.05 for August, \$1.04 for September, and \$1.05 for December.

CHICAGO, May 20.—Wheat—\$1.00 for July, 96c for September and 97 1/2c for December.

## HOPS.

NEW YORK, May 18.—Hops, choice, are held stiff at 32@33 1/2; good to prime, 27@31c. The small wants of brewers are supplied from the latter qualities; olds, 5@12c; London is using old hops freely and don't want to bend to our prices.

## DRIED FRUITS.

NEW YORK, May 8.—Plums are quoted at 10@12c, with some pie bakers' call. Peaches are slow; 10c for sacks and 11c for boxes. Apricots are losing tone, and are down to 10@11c for bags and 13@14c for boxes.

The bulk of Pacific owned Prunes is now released from the lock-up, and a more animated feeling prevails. It is unusual to see Californians quoted so near to Turkish casks. For new owners paid 7 1/2c, offering to trade at 8@9c for good to selected.

## EASTERN WOOL MARKETS.

NEW YORK, May 15.—Domestic fleece, 34@37c lb.

NEW YORK, May 15.—Bradstreet's will say: Manufacturers have bought more freely of choice wools than during the preceding week. Sales of Australian wools have been much larger. Dealers are more interested at present in the prices paid for the new clip than in the values ruling in the Eastern markets. The slow movement in woolen goods is forcing manufacturers to delay in taking stock. It is thought by some dealers that the high prices asked by growers will induce freer buying of foreign wools next fall than has prevailed during the past year. The demand for pulled wools has been very strong and stocks are well reduced. Sales of Territories are restricted on account of the light supply. Other domestic grades are quiet and values are weak. Carpet wools are selling slowly. Dealers are firm in their demands, on account of a recent decision relating to the sorting clause which makes it very uncertain as to the values at which stocks can be replaced. It is said that 900 bales were secured at the recent London sales for American account. In Boston, the wool sales for the week were larger than for the preceding week, particularly foreign wools. In the Philadelphia wool market no improvement is reported, although prices have not weakened.

NEW YORK, May 18.—With the small stock of wools here producers regard any hint of weakness as a mere "bluff" and make the most of the statistical situation in naming high home prices. Meantime buyers are rigid in the opinion that from the present outlook wools that will exceed 65 cents to clean are beyond general trading figures. There were some opening sales of California at Boston. Territorial and others will be in better order than last season. Woolen goods are fairly steady, and the omission of some auction sales this year lends some strength. The Delaine mills still use Australian stock freely.

## VISIBLE SUPPLY OF GRAIN.

NEW YORK, May 18.—The following is the statement of the visible supply of grain on Saturday, as compiled by the New York Produce Exchange: Wheat, 19,243,000 bushels, a decrease of 1,611,000; corn, 3,481,000 bushels, a decrease of 237,000; oats, 3,072,000 bushels, an increase of 482,000; barley, a decrease of 99,000 bushels.

## FOREIGN GRAIN REVIEW.

LONDON, May 18.—The Mark Lane Express, in its review of the British grain trade for the past week, says: English wheats have declined 1s. Foreign wheats are less depressed, and have shown a fractional improvement. Corn, steady. Oats and barley, dull.

## LOCAL MARKETS.

	Buyer Season.	Seller Season.	Buyer 1891.	Seller 1891.
Thursday.....	146 1/2	146 1/2	110	108 1/2
Friday.....	146 1/2	146 1/2	108 1/2	108 1/2
Saturday.....	146 1/2	146 1/2	108 1/2	108 1/2
Sunday.....	146 1/2	146 1/2	108 1/2	108 1/2
Tuesday.....	146 1/2	146 1/2	108 1/2	108 1/2

\*After July. †After August.

## WHEAT.

	Buyer	Seller	Buyer	Seller
Thursday.....	1891	1891.	1891	1891
Friday.....	1891	1891.	1891	1891
Saturday.....	1891	1891.	1891	1891
Sunday.....	1891	1891.	1891	1891
Tuesday.....	1891	1891.	1891	1891

\*After August. †After July. ‡After August.

BAGS—The market is without any particular change to note. The range is given at 7@7 1/2c.

BARLEY—The sample market is strong at an advance. In futures trading has been only fair. The following are the sales reported on to-day's call:

Morning Session: Seller 1891—100 tons, \$1.09 1/2; 100, \$1.09 1/2; 100, \$1.08 1/2. Buyer 1891, after July 1st—100 tons, \$1.18 1/2. No. 1 Brewing, hayer season—100 tons, \$1.54 1/2. Buyer season—100 tons, \$1.52. May—200 tons, \$1.52. Spot—100 tons, \$1.54. Buyer 1891, after August 1st—100 tons, \$1.16 1/2 cwt.

BUTTER.—The market is stronger with a slight advance obtainable. Packers say if higher prices rule they will stop packing until the market shades off again.

CHEESE.—The market is over-supplied, causing easy prices and some shading.

EGGS.—The market has a strong tone at a slight advance. The improvement is due to lighter receipts and a good demand.

FLOUR.—The market continues to hold to full prices.

WHEAT—The sample market is very strong with very little offering for sale. In futures dealings have been fair at slight fluctuations. The following are to-day's call board sales:

Morning Session: Buyer 1891—100 tons, \$1.73 1/2; 100, \$1.74; 1000, \$1.74 1/2. Buyer season—100 tons, \$1.74. Buyer 1891, after August 1st—200 tons, \$1.67 1/2; 100, \$1.67 1/2; 800, \$1.68 1/2 cwt. Afternoon Session: Buyer 1891—300 tons, \$1.73 1/2; 100, \$1.74. Seller 1891—100 tons, \$1.61 1/2; 500, \$1.61 1/2; 700, \$1.61 1/2 cwt.

## Market Information.

## PRODUCE RECEIPTS.

Receipts of produce at this port for the week ending May 20th, were as follows:

Flour, qr. sks.....	61,644	Middlings, sks.....	4,303
Wheat, cts.....	303,974	Alfalfa, ".....	67
Barley, ".....	31,036	Chicory, hbbs., ".....	67
Rye, ".....	1,162	Broomcorn bds., ".....	3,309
Oats, ".....	275	Hops, bls., ".....	1,699
Corn, ".....	5,126	Wool, ".....	29
*Butter, ".....	1,670	Hay, tons, ".....	327,810
do bxs.....	326	Straw, ".....	10,212
do bbs.....	11	Wine, gals, ".....	431
do kegs.....	11	Brandy, ".....	50
do tubs.....	11	Raisins, bxs., ".....	22
do hxs.....	530	Honey, cs., ".....	268
†Cheese, cts.....	1,033	Walnuts, sks., ".....	16
do hxs.....	143	Flaxseed, ".....	16
Eggs, doz.....	46,970	Mustard, ".....	268
do Eastern.....	48,000	Almonds, ".....	16
Bans, cts.....	2,576	Peanuts, ".....	16
Potatoes, sks.....	17,183	Popcorn, ".....	16
Onions, ".....	4,685	Beet sugar, bls., ".....	16
Bran, ".....	11,770	do do sks., ".....	16
Buckwheat.....	11,770	do do sks., ".....	16
*Overland 38 cts. †Overland..... cts.			

## CEREALS.

London Agricultural Gazette, May 4: At this time last year the wheats were not very forward for the season, being considerably more backward than other things, but it was remarked of them in this column, May 5th, that the stand was above an average and promising a big crop if climatic conditions continued favorable, which they did, on the whole, and a big crop was harvested. At the present time the wheats are very backward, more so than they were even in 1887, but the plant could not show better habit under the circumstances, being of perfect form and of perfect color, owing to the dryness of the land; and there is, once again, the making of a good crop of wheat in the stand for first week in May, although it has more the appearance of that of second week in March.

The local wheat market has held to strong prices, with an advance obtainable for round parcels. A decline in spot charters, better prices for wheat abroad and light supplies here, are the favorable influences. There is less wheat now held on this coast than ever before in the month of May. Cables received yesterday (Tuesday) from Liverpool report the crop prospects not so encouraging as heretofore advised. To this is undoubtedly attributed the advance in the European wheat markets and not to the McKinley high tariff bill, as the rings or monopolists would like to have persons believe. By reference to movements of tonnage, it will be seen that the tonnage on the way has increased the past week. It is now larger than at the like date for several years past. Our large crop prospects will not only require all that is on the way, but considerably more.

Advices from the growing crops are still favorable. The cool weather has been of great benefit. At this writing it looks as if we will have warmer weather which if realized will force crops to maturity.

Barley has made another step upward, under a large demand and light supplies. Orchardists are large buyers, but they always are during fruit season or when cultivating, for they use large numbers of draft horses. Oregon and Washington report the supply about exhausted.

Oats are stronger, with a slight advance obtainable. The stock here and supply to draw from is quite light not only in California, but also up north.

Corn continues to maintain the strong tone heretofore noted. The higher prices tend to restrict the demand, but the light supply favors sellers. Rye is nominally unchanged.

## FEEDSTUFF.

Ground feed is strong and slightly higher. The receipts are barely enough to meet current requirements. Shortening pastures are favorable to still higher prices.

New hay is making a better showing. Prices opened higher than for many years, and it looks as if good prices will obtain throughout the year. For new hay the following prices rule: Wheat and oats, \$16.50@17.50; wild oats \$13@16, and alfalfa, \$8.50@9.75. Old hay is selling for more money under a good demand and light supplies.

## MAY WHEAT REPORT.

Statistician J. R. Dodge, Department of Agriculture says:

The exceptionally high returns of April have been duplicated by the May return of wheat. The favorable meteorological conditions which were noted last month as having prevailed throughout the season, from preparation of seed bed to beginning of spring growth, have continued, and present condition is reported even higher than in April. The general average, from the consolidated returns of county correspondents, 97.9, approaches full condition more closely than in any other May report, with a single exception, during the history of crop reporting by this Department. The advance during the month was due to improvement in weather conditions in New York which advanced the State average by 5 points, and to a continuation of favorable conditions in the heavy districts of Western production. Quite as striking as the high general average is the uniformity of the returns for different States. No State falls as much as five points below the general average, and none exceed it by two. The variation of returns within county lines is quite as remarkable, showing that not only every State, but almost every section of each State participates in the remarkably favorable prospect for this crop. The conditions which have been so extremely favorable to growing grain and to grass lands, abundance of moisture accompanied with high temperatures, have very much retarded the ordinary spring work of the farm. The proportion of spring plowing already accomplished is reported at 68.8 per cent. The average of several previous years has been about 77 per cent done on May 1st. The Eastern and Middle States report favorable conditions for spring work, and fair progress to date. In all the Southern States it has been delayed by heavy rains, and later by drought, which has rendered plowing difficult and imperfect. In the Ohio Valley excess of moisture delayed plowing through March and intertered with its progress in some places during the first two weeks of April. The work has progressed rapidly since, and germination has generally been prompt. In the Northwest the season has been favorable, spring work is well advanced, and spring grain coming up and growing finely.

## FRUIT AND CANNED GOODS.

The shipments of fruit and canned goods to the East by rail in April were as follows:

	Canned Goods.	Dried Fruit.	Citrus Fruit.
From—			
San Francisco, lbs.....	605,080	440,530	4,311,210
Los Angeles.....	54,600	22,300	—
Sacramento.....	56,800	34,680	—
San Jose.....	194,780	131,280	—
Marysville.....	103,950	640	—
Colton.....	—	—	4,458,110
Stockton.....	30,450	300	—
Totals.....	1,109,720	630,370	8,769,320
January.....	1,564,890	2,007,410	965,610
February.....	833,380	953,510	1,778,510
March.....	1,009,450	663,650	7,421,230
Four months.....	4,568,890	4,254,940	18,935,790

The shipment of raisins from the State in the past month were as follows: San Francisco, 259,980 lbs; Sacramento, 244,010; Stockton, 832,590; Los Angeles, 45,840; Colton, 20,070; total, 1,402,490 lbs, as against 1,329,740 in January, 481,330 in February and 983,530 in March, or 4,197,090 lbs since January 1st.

## LIVE STOCK.

The selling offers are fair only, as most of the stock has been or is being driven to summer pastures. Mutton sheep are fairly firm, but they always bring good prices during summer months. Hogs are barely steady. The consumption of all kinds of meats is only fair, owing to increasing supplies of fruits and vegetables.

The market for dressed cattle is quoted as follows (to obtain the price on foot, take off from the price for stall-fed one-third to one-half, according to the nature of the feed and time fed; and for grass-fed take off the price from 40 to 60 per cent):

HOGS—On foot, light grain fed, 5@5 1/2c lb; dressed, —@—c lb; heavy, 4 1/2@5c lb; BEEF—Stall fed, 6 1/2@—c lb; grass fed, extra, 6@—c lb; first quality, 5 1/2@—c lb; second quality 5@—c lb; third quality, 4@—c lb; bulls and thin cows, 2@3c lb; VEAL—Small, 6@7 1/2c lb; large, 5@6 1/2c; MUTTON—Wethers, 7 1/2@8c lb; ewes, 7@7 1/2c lb; spring lamb, 7 1/2@9c lb.

## FRUITS.

The first consignments of this season's raspberries were received on yesterday by Wetmore Bros. H. Neilson of San Lorenzo was the shipper. They fetched 50c a basket.

Cherries are coming in very freely and sell for a shade less prices. Strawberries are unchanged. With continued warm weather all kinds of early fruits will be in oversupply for table use. Canners are taking a few strawberries that come within their views. Australian apples (over 3500 bxs.) came in the past week. Some are very choice.

Eastern fruit crop advices are conflicting. The general tenor of advices indicate that the crops will not be as large as the outlook warranted about a fortnight ago, but whether the shortage will be made good by an increase in the number of trees coming into bearing is an open question. We are still unable to obtain thoroughly reliable quotations from canners and driers further than those given last week. It is claimed that in some instances higher prices are paid than we think quoted for outside figures.

Dried fruits are about cleaned up. Raisins continue to come in sparingly. The market does not show any noticeable change in prices.

Under freer receipts, stronger selling and freer receipts of deciduous fruits, oranges are weak at lower prices. Our outside quotations are obtainable only in exceptional cases. The bulk of receipts are more

or less coarse grain or else corky, while many are insipid. It is the off fruit that weakens the market for other kinds.

Under freer imports and stronger selling, Mexican limes are unsettled and lower.

## VEGETABLES.

Garden truck is coming in quite freely and shows a steady improvement. Peas are being taken by canners. Rhubarb and asparagus are unchanged. Summer squash is tending down. Tomatoes are scarce and very high. String beans are in freer receipt. Early York Cabbage is in good supply.

New onions are not coming in quite so freely, owing to low prices. The quality is improving.

New potatoes are in free supply. Well matured, suitable for shipping, are in fair demand. Old potatoes, except choice to extra choice Burbank seedlings, are in oversupply and demoralized.

## MISCELLANEOUS.

From reliable advices up to May 13th the following summary of tonnage movement is compiled:

On the way to	1891.	1890.
San Francisco.....	310,123	195,183
San Diego.....	16,470	14,652
San Pedro.....	11,110	11,259
Oregon.....	34,383	24,712
Puget Sound.....	38,305	21,432
Totals.....	410,391	267,240

In port at

San Francisco, disengaged.....	15,741	8,384
" engaged for wheat.....	43,085	33,165
San Diego.....	2,581	—
San Pedro.....	2,009	14,997
Columbia River.....	11,151	—
Puget Sound.....	—	—

Totals..... 74,577 56,468

Under increasing supplies and a falling off in the demand, poultry is a shade lower.

Beans are steady. The demand is in a small way, but then the supply is light.

Honey is unchanged. Choice desirable consignments are readily placed. The crop is larger than estimated.

In hops there is nothing new to report. Both buyers and growers appear disposed to await crop developments in the United States and also abroad.

Wool has a stronger tone. Buyers are doing all they can to keep prices down. At the East, manufacturers appear to be buying in a hand to mouth way.

The Southern Pacific railroad reports the following shipments, in pounds, in last month: Beans, 1,890,590; brandy, 447,850; mustard, 31,480; nuts, 22,330; potatoes, 6,784,790; vegetables, 2,160,440; wine, 6,625,580; Honey; 2680; hops, 75,370; wool, grease, 2,010,380. pulled, 109,320, scoured, 233,270.

## DOMESTIC PRODUCE.

Extra choice in good packages fetch an advance on top quotations, while very poor grades sell less than the lower quotations. WEDNESDAY, May 20, 1891.

BEANS AND PEAS.	NUTS—JOHNSON.
Bayo, cts.....	3 40 @ 3 65
Butter.....	3 70 @ 3 05
Peas.....	3 00 @ 3 35
Red.....	2 50 @ 2 75
Pink.....	2 20 @ 2 45
Small White.....	3 00 @ 3 30
Lima.....	3 00 @ 3 40
Field Peas, hys.....	1 65 @ 1 95
do green.....	50 @ 1 80
do Eastern do.....	2 50 @ 3 00
do Niles.....	1 70 @ 1 85
Split.....	44 @ 6



PACIFIC COAST WEATHER FOR THE WEEK.

[Furnished for publication in this paper by officer in charge of branch Signal office, Division of the Pacific.]

DATE. May 13-19.	Olympia.				Portland.				Eureka.				Red Bluff.				Sacramento.				S. Francisco.				Fresno.				Keeler.				Los Angeles.				San Diego.											
	W.	.02	60	N	P	C	.00	54	NE	Cy.	.00	52	N	Cy.	.04	68	S	E	P	C	.00	62	S	P	C	.00	56	W	Cy.	.00	70	S	E	P	C	.02	62	S	Cy.	.00	60	W	P	C	.01	58	Nw	Cy.
T.	.02	68	N	Cl.	.00	68	NE	Cl.	.....	.....	.....	.....	.....	.....	.00	66	S	E	P	C	.00	64	SW	Cl.	.T	54	SW	Cy.	.00	72	Nw	Cl.	.04	58	SW	Cl.	.00	62	W	Cy.	.00	64	W	Cl.				
F.	.T	74	Nw	Cl.	.00	76	NE	P	C	.00	54	Nw	Cl.	.00	74	E	Cl.	.00	68	SW	Cl.	.00	54	SW	Cy.	.00	78	Nw	Cl.	.00	74	W	Cy.	.00	62	W	Cl.	.00	62	W	Cl.							
S.	.00	66	Nw	Cl.	.00	70	N	Cl.	.00	54	Nw	Cy.	.00	80	S	E	Cl.	.00	68	SW	Cy.	.00	56	SW	Cy.	.00	80	Nw	P	C	.00	74	SW	Cl.	.00	60	W	Cl.	.00	64	Nw	P	C					
S.	.00	68	W	Cl.	.00	70	N	Cl.	.00	52	Nw	P	C	.00	90	SW	P	C	.00	78	SW	Cy.	.00	54	Nw	Cy.	.00	86	Nw	P	C	.00	74	SW	Cy.	.00	62	W	Cy.	.00	64	Nw	Cl.					
M.	.00	60	W	P	C	.00	68	N	Cl.	.00	54	Nw	Cl.	.00	90	Nw	Cl.	.00	86	Nw	Cl.	.00	56	W	P	C	.00	86	Nw	Cy.	.00	78	Nw	P	C	.T	62	W	Cl.	.00	62	W	Cl.					
T.	.00	62	W	Cl.	.00	68	Nw	Cl.	.00	56	Nw	Cl.	.00	88	N	Cl.	.00	86	Nw	P	C	.00	56	SW	P	C	.00	86	Nw	Cl.	.T	78	W	Cy.	.T	60	W	Cy.	.00	62	SW	P	C					
..	.04	.....	.....	.....	.00	.....	.....	.....	.....	.00	.....	.....	.....	.04	.....	.....	.....	.00	.....	.....	.....	.00	.....	.....	.....	.T	.....	.....	.....	.00	.....	.....	.....	.06	.....	.....	.....	.T	.....	.....	.....	.00	.....	.....	.....			

EXPLANATION. Cl, for clear; Cy, cloudy; Fr., fair; Crn., calm; — indicates too small to measure. Temperature wind and weather at 5 P. M. (Pacific Standard time) with amount of rainfall in the preceding 24 hours. T indicates trace of rainfall. P C, partly cloudy. Rn., rain.

Fruits and Vegetables.

Choice selected, in good packages, fetch an advance on quotations, while very poor grades sell less than the low quotations.

VEGETABLES.	
Bananas, bunch 1 50 @ 3 00	Okra, dry, lb. 20 @ 30
Limes, Mex. 3 00 @ 4 00	Parsnips, chl. 1 25 @ 20
do California. — @ —	Peppers, dry, lb 12 @ 20
do do sm'l bxs — @ —	do green. 20 @ 22 1/2
Lemons, box. 2 00 @ 3 50	Turnips, chl. 75 @ 90
do Riverside. 1 00 @ 2 00	Beets, sk. 50 @ 1 00
do Los Angeles 1 00 @ 2 00	Cabbage, 100 lbs 40 @ 55
do Sicily, bx. 5 50 @ 7 00	Carrots, sk. 50 @ —
Seedling Oranges*	Garlic, lb Italian 1 @ 15
do Riverside. 1 50 @ 2 25	do California 10 @ 15
do Los Angeles 1 25 @ 1 75	Asparagus, bx. 50 @ 1 00
Navel Oranges.	do ex. choice 1 25 @ 1 75
do Riverside. 4 50 @ 5 25	Mushrooms. — @ —
do Los Angeles — @ —	Common, lb 15 @ 25
do do sealy. — @ —	Choice. 25 @ 40
do Duarte. — @ —	Celery, per doz. 40 @ 50
Pineapples, doz 4 00 @ 5 00	Cauliflower, doz 35 @ 50
Strawberries, Chest.	Tomatoes, box. 2 00 @ 3 00
Choice to extra 7 00 @ 10 00	S'm'squash bx 75 @ 1 00
do fair to good. 3 50 @ 6 30	Cucumbers, doz 50 @ 90
Cherries, light bx 40 @ 75	Rhubarb, bx. 60 @ 1 00
do do dark 50 @ 1 25	Peas gr'n com sk 45 @ 75
Gooseberries. 2 @ 3	do do sweet. 75 @ 1 50
Blackberries. — @ 1 00	String Beans, lb 3 @ 6
do English. 7 @ 8	do do wax. 5 @ 6

\*In quoting oranges, regular sizes are given, viz., from 2 to 176 for Navel, and 126 to 226 for seedlings; odd sizes cents to \$1 @ box less.

Rope.

Baling, Duplex, lb. 8	
Mailla, lb. 12	
Twine, for hops, balls, tarred, lb. 13	
grape vine, balls, lb. 13 1/2	
coils, lb. 13 1/2	
spring, lb. 13	
blinder (650 ft. to lb), lb. 15	
Duplex twine 3c per lb less.	

Price, Berlin Company.

The card of the above firm will be found on the last page of this paper, and we think it would well pay all Farmers, Fruit Growers and other Producers to cut it out and paste it up in some prominent place, so your neighbors can see what kind of a house the above firm is.

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Their Mr. Robertson, who devotes his entire time to the Grain and Bran business of the firm, is a gentleman who is well known on the floor of the Produce Exchange and who has had years of solid and practical experience in handling the above articles.

Their large capital enables them to be ready at all times to make liberal advances on consignments of any size.

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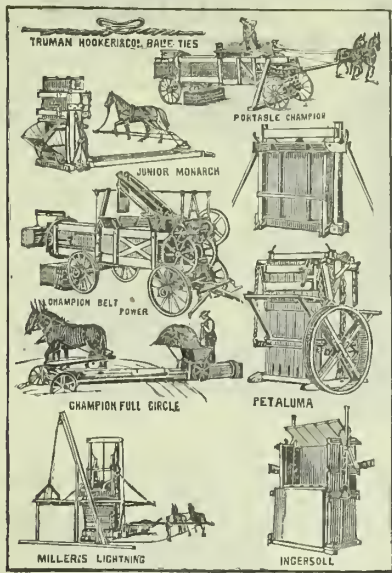
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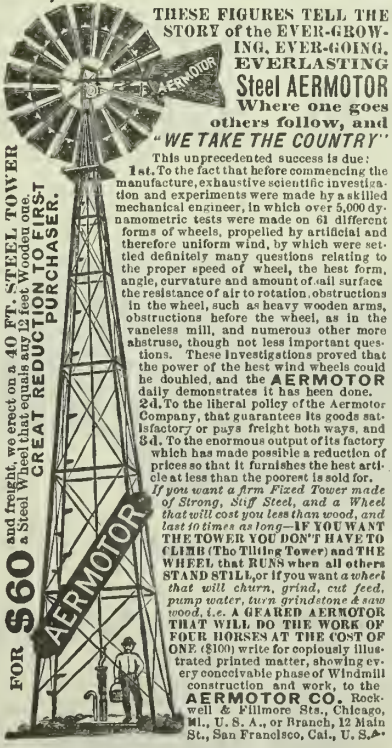
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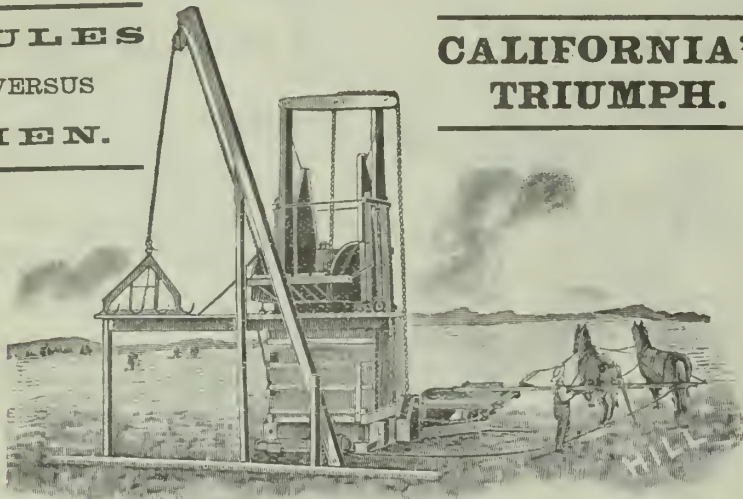
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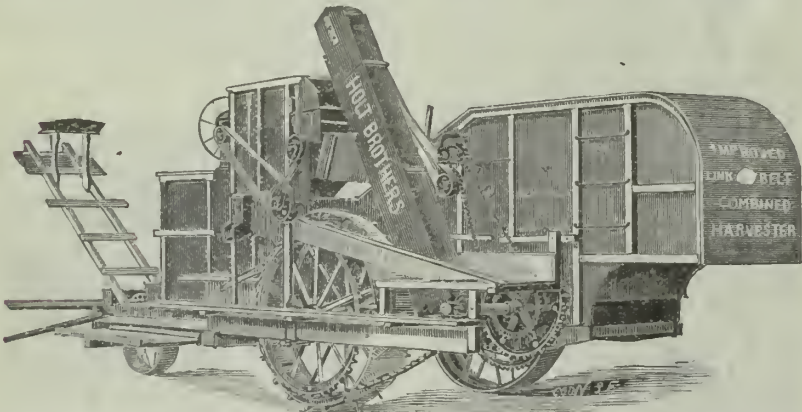
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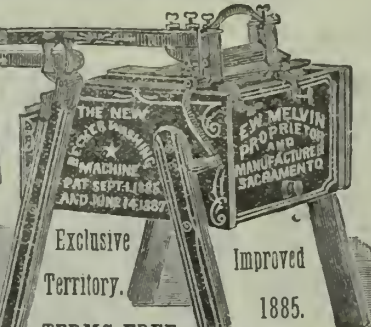
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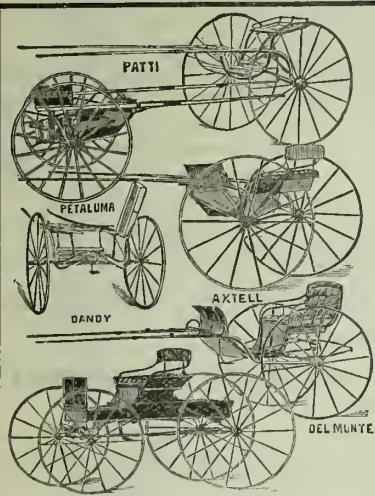
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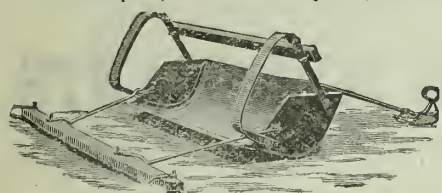
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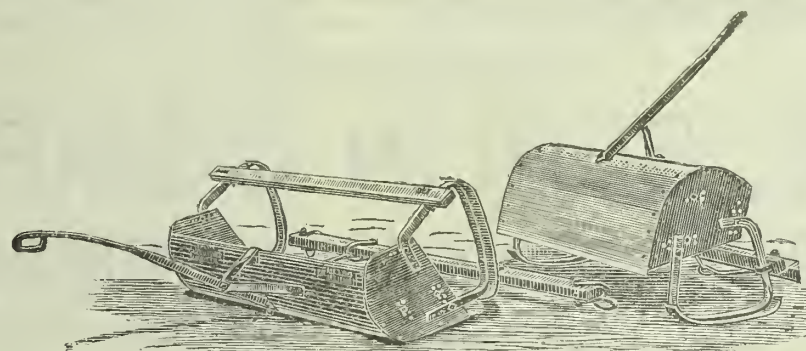
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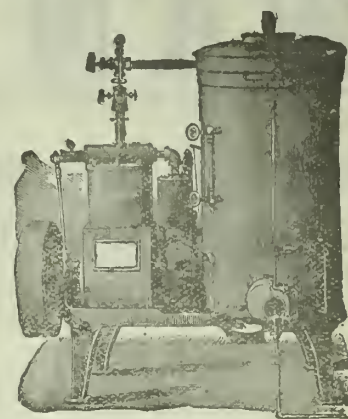


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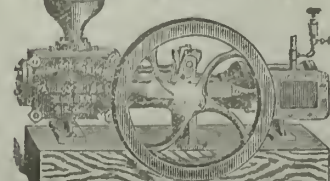


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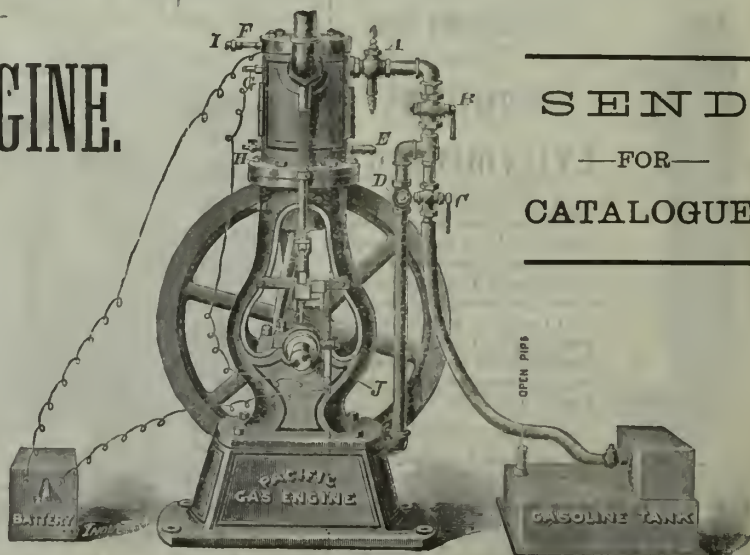
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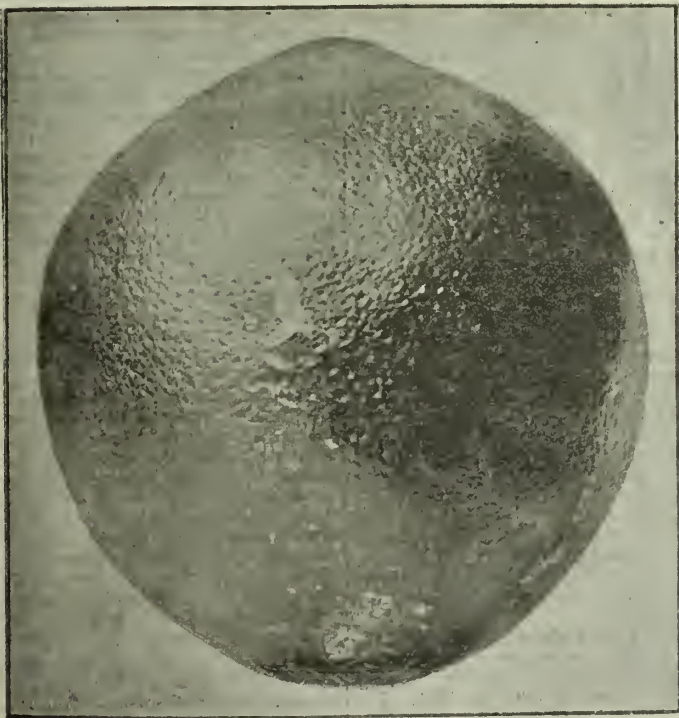
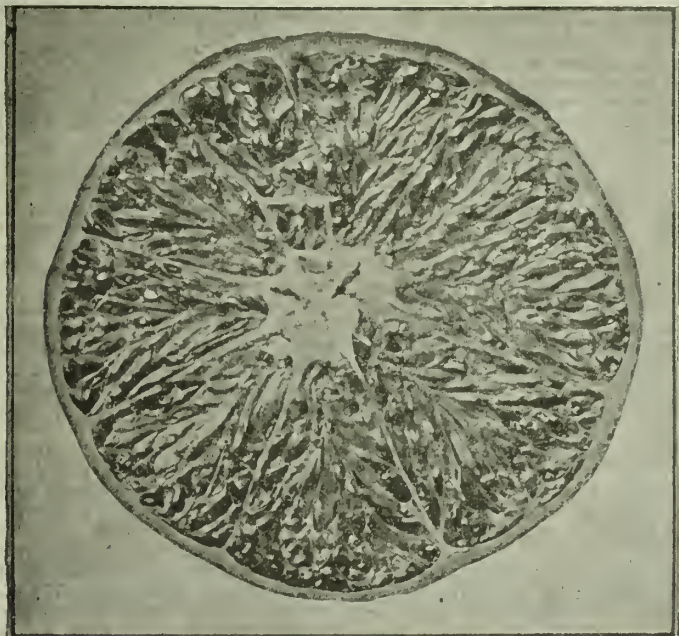


# PACIFIC RURAL PRESS

Vol. XLI.—No. 22.

SAN FRANCISCO, SATURDAY, MAY 30, 1891.

DEWEY & CO., Publishers,  
Office, 220 Market St.



THOMSON'S IMPROVED NAVEL ORANGE.

## An Improved Navel.

We give on this page an exterior and sectional view of a Navel orange which has recently occasioned much discussion in Southern California. It was brought out by A. C. Thomson of Duarte, Los Angeles County, as the result of a method of propagation of which he does not desire to give a full account, but which, so far as we can learn, proceeds upon the claim of influence of stock upon scion. Such claim is still a matter of controversy among pomologists; but with the orange-growers of California, there is perhaps more reason for belief in the formative influence of the stock upon the fruit of the scion than in other lines of fruit. The influence of the China lemon and of all lemon stock upon the fruit of orange varieties budded into it is perhaps the

most significant evidence of change. The influence of different kinds of orange stock is not so well established, but it has been firmly maintained by some, though others just as firmly hold that no such change occurs. Mr. Thomson seems to rest his case largely at least upon such influence, for in an account in the *Azusa Pomotrophic*, which we understand he does not repudiate, the following genealogy is given of the fruit which our engravings show:

Mr. Thomson does not claim to have originated a new variety. He does, however, claim to have perfected the Navel orange beyond anything that has been seen, and in this way: He put a Washington Navel into a St. Michael stock. After this grew and matured, a bud was taken from it and put into a Mediterranean Sweet stock. Following up the plan, a bud was taken from the product of this and inserted into a seedling root and the fruit exhibited is the result. It is not a hybrid in the ordinary

sense. Thompson claims that the St. Michael and Mediterranean parents modified whatever grosser propensities the original Navel possessed and brought forth the perfect fruit.

In a letter to us, Mr. Thomson says he regrets that he "even partially gave away the process by which this wonderful orange came about;" so we infer that he holds some secret in the process not disclosed above. What it is is of interest, but it does not out much of a figure in the present estimation of the fruit. Of its character, including some points of which the photo-engraving clearly speaks for itself, the judgment of the *Pomotrophic* is as follows: "In an experience of several years at citrus fairs, the writer has never seen anything to approach the external perfection of this new orange. For thinness of skin, compactness of fiber, smoothness, color, size, shape and all the outside qualities that mark the perfect orange, it exceeds all specimens examined so far, that there is no comparison whatever. There is no difference of opinion on the beauty and perfection of this new orange."

The questions involved in this fruit are of interest, and will probably be fully discussed in the future. Mr. Thomson says he has no trees

for sale at present, in fact he has orders which will cover all he can propagate this year. The future must determine whether Mr. Thomson has secured a variety which is acknowledged to have distinctive excellence by his method of propagation, or whether it has been produced by other influences, also whether the characters which are now admired will be permanent in all favorable situations. Time will prove these things.

A UNIQUE EXHIBIT.—Mrs. Wearman had a striking exhibit at the Marysville Fair. It was a plane of oranges, ten feet wide, with citrus buttresses at either end, and "Wearman" in crimson apples across its face, slanted from the floor back and upward to a shelf, waist high, where a gigantic swan seemed resting on a lake of lemons. The breast of the great bird was of oranges and lemons imbedded in cotton; its wings and back of figs, black and white in alternate bands, and shaded with dried fruit; and the snow-white neck and head of rice and sugar. The whole figure was set off by a green hacking of cedar sprigs, in a frame of arborescent oranges.



AN ORANGE EXHIBIT AT MARYSVILLE.



## CORRESPONDENCE.

Correspondents are alone responsible for their opinions.

## New Englanders on the Pacific Coast.

EDITORS PRESS:—I see my friend Dr. Matteson wishes me to discuss the causes of those "abandoned New England farms." I beg to be excused. The paper which I commended in the short communication which drew the doctor's attention was, I think, plain enough, in giving what I believe true causes of many of those farms being left vacant, to satisfy any mind open to conviction, and a repetition would be largely thrashing over old straw, to which operation the name of the writer would add no importance.

I do not wish a controversy with my friend Dr. Matteson, but in order to illustrate the causes which I alluded to, as leading New England energy to seek better fields for the application of its labor than to continue on the rocky hillsides of its birthplaces, I will mention a few names.

Right here at Salem we have one of the soundest hanks on the Pacific Coast. The joint owners are of New England birth, sons of farmers. They are both rich men. The richest one, reputed to be worth more than twenty millions, started his business life by renting 17 acres of the paternal farm, took a younger brother into partnership with him, and the two youths nearly killed themselves gathering the stone off the lot in preparation for plowing. After one season's trial, this Yankee boy set out for the Pacific Coast, and we next hear of him at Portland as a merchant's clerk. By close attention to business and natural evolution, so to say, he grew to a merchant and a banker, and for many years has been owner of more farms of richer land than he ever could have attained by the profits of New England farming; and these farms are so conducted, under his direction, and chiefly because "he loves the land," that they furnish good homes to men who have heretofore not been able to profitably direct their own labors upon their own lands, as there is ample opportunity under our homestead law to do.

The movement of New England youth toward the wide and wealthy West has been going on with accelerated momentum since "the days of forty-nine," without regard to tariff laws; and if Dr. Matteson will make candid examination into the personal history of many men of wealth and influence in Oregon, he will find they left their New England homes with hope, since realized, that their share of the general development of the almost boundless resources of the Pacific Slope would be greater than they could reasonably hope to attain by cultivating the sterile New England hillsides. To write of men like W. S. Ladd, Asahel Bush, R. P. Beale, E. M. Waite and others I might mention as "moneyed aristocrats," savors of envy more than of reason. If Dr. M. and my poor self have failed to be members of the aristocracy camp, the cause is probably more in ourselves than in tariff laws or "McKinley prices." It was, to my mind, a blemish on Mr. Matteson's paper on "Strawberries" for him to throw into it his allusion to "McKinley prices." It is a kind of clap-trap which I think is often indulged in to the detriment of sober reason, and my allusion to it in connection with Dr. M.'s article was intended simply to indicate that view. Wishing it understood that I take the affirmative on all the points in regard to which my friend wants to be enlightened, and that the McKinley law is in direct line with the purposes of the Grange, and is operating to the advantage of the farmer's interest in more ways than any similar law has ever before done, I close this paper by asking Dr. Matteson what he means by McKinley prices?

I notice free-trade advocates always seem to find their illustrations away from home. They of New England are mourning over the deplorable condition of the Western farmer, snowed under mortgages. They of the West mourn over the abandonment of New England farms. I have never seen any allusion to the extensive abandonment of worn-out tobacco lands which took place between 1846 and 1860, under the free-trade tariff. No allusions are made to condition of old English farmers under free trade.

Salem, Oregon.

O. O.

## Santa Barbara County Notes.

Bean-planting is being vigorously prosecuted. Many beans are already up. The present foggy weather occasions some fear lest a rain may come which would be injurious to beans in the ground and would also make many weeds to kill with cultivator and hoe. The hay crop is being cut. It will be of good quality and generally abundant in quantity. Foxtail is injuring the alfalfa fields, rendering the fruit crops of little value. Some fields have been plowed up, and beans and corn planted instead on account of the foxtail.

Fruit promises to be plentiful except that apricots and peaches are a failure in some instances. Apricots are being contracted for at one cent per pound, contracts to run three years. Grapes look as if they will do well. Sulphuring has to be resorted to here to get grapes, as the closeness to the ocean makes the air too damp and foggy for the vines. Many walnut trees have been set out this winter and spring. Mr. Higgins has set out 1500 lemon trees on

his place in Carpinteria. He irrigates them with artesian water, having bored several wells on his place.

Prospecting for oil still goes on. Preparations for boring on Mr. Rhodes' place, north of Carpinteria, are being made. The oil runs out of several springs on that place, and indications are very good for the success of the enterprise. The Occidental well continues to flow about 25 gallons per day, which is conveyed to Smith's wharf in pipes. Matters are quiet at the Summerland gas wells, but the town continues to grow.

## Hogs and Foxtail.

To those who are raising hogs and have any pasture for them containing the grass called foxtail, I will warn not to let the hogs run in the grass after the foxtail heads out, as it will get in the hogs' eyes, and cause blindness, if not soon removed. Myself and neighbors having had trouble of this kind leads me to give this warning in the hopes of benefiting others.

A fishing company is engaged in catching crawfish in the ocean off Carpinteria, which they ship to San Francisco by steamer.

Carpinteria May 11 '91. L. B. CADWELL.

## THE PUBLIC LANDS.

## The New Land Laws.

General Land Agent Sheehan has received an important communication from the Department of the Interior in the shape of an interpretation of the recently enacted Timber Culture Act.

Attention is first called to the section of the new law prohibiting the further entry of public lands for timber culture unless the right to make such entry had accrued or was accruing at the date of this Act, March 3, 1891.

In dealing with existing entries the right is extended to persons having the following qualifications to commute their entries in certain cases at the rate of \$1.25 an acre: The person shall have in good faith complied with the provisions of the Timber Culture laws for four years; he shall be an actual bona fide resident of the State or Territory in which said land is located.

Final proof for the commutation of timber culture entries shall be made as other final timber-culture proof is made, and shall satisfactorily exhibit the facts necessary to make purchase. Returns will be made as in commuted homestead entries under existing practice, but with proper annotations to indicate the transaction as a commutation of timber culture entry under this Act.

The new Act amends the Desert Land law of March 3, 1877, in the following particulars: At the time of filing declaration a map of the land exhibiting a plan showing the mode of contemplated irrigation, which shall be sufficient to thoroughly irrigate and reclaim the land and prepare it to raise ordinary agricultural crops, and the source of the water to be used must also be filed.

Entrymen shall expend, for purposes stated, at least \$3 an acre—\$1 an acre each year for three years—and shall file proof thereof each year, the proof to consist of the affidavit of two or more witnesses, showing that the full sum has been expended and the manner in which expended, and at the expiration of the third year a map or plan showing the character and extent of improvements. Failure to file proof during any year shall cause the land to revert to the United States, the money to be forfeited and the entry canceled.

The limit for making proof is four years from date of filing declaration. The proof must show the citizenship of the party offering it, and the cultivation of one-eighth of the land in addition to the reclamation. Final entry may be made and patent received at any time prior to expiration of four years, when all required proofs, as stated, have been made.

Entries made under the old law may be perfected under either the old or new law, at the option of the claimant.

Assignments are recognized, but the amount of land that may be thus held, prior to issue of patent, is restricted to 320 acres. Assignees must prove their assignments by filing in the local Land Office an affidavit and certified copy of the instrument under which they claim, and make affidavit of the amount of land held. The provisions of the original Act and the amendments are extended to Colorado.

The right to make desert-land entry is restricted to resident citizens of the State or Territory in which the land is located.

The new Act extends its provisions to settlers under other settlement laws, in addition to the pre-emption and homestead laws, and admits of transfers for right of way for canals or ditches for irrigation or drainage, church, cemetery or school purposes, or for the right of way of railroads.

The new Act repeals all laws allowing pre-emption of public lands by individuals, but provides for perfecting claims previously initiated, according to the laws under which they were initiated.

A person already the proprietor of more than 160 acres of land in any State or Territory cannot acquire a right under the homestead law.

Those proposing to commute their homestead entries to cash must make proof of settlement and of residence and cultivation of the land for 14 months from the date of entry.

## THE FIELD.

## California Products and the Census.

The Census Office has been quite freely criticized for some of its statements concerning California. Gen. R. P. Porter, Superintendent of the Census has addressed the following letter to the *Chronicle* stating the criticisms and the answers he makes to them. We republish the letter as follows:

In the *Chronicle* of April 9th appeared an article criticizing the work of the Census Office in California, especially in connection with the collection of statistics on viticulture and truck farming, the preliminary reports on which are contained in Census Bulletins 38 and 41.

As the statements made in the article referred to might mislead persons not conversant with the methods adopted by the Census Office in the collection of these statistics or the scope of the inquiries, I desire to correct some of the errors into which the writer has fallen.

In the first place, the bulletin on truck farming contains, as stated in it, no statistics of vegetables grown as farm crops or in market gardens, but is strictly confined to the products of what is known as truck farming, which is thus defined in the bulletin itself.

Truck farming, although it also consists in the production of green vegetables for market, is distinguished from market gardening by the fact that, while the market gardener lives near a market and delivers his products with his own teams, usually producing a general variety of vegetables, the truck farmer lives remote from market, is dependent upon transportation companies and commission men for the delivery and sale of his products, and usually devotes himself to such specialties as are best suited to his soil and climate.

When this is borne in mind it will be seen that great injustice is done to the Census Office by attacking the figures of the bulletin giving acreage, product, etc., of truck farms on the assumption that they give the total acreage and product of each of the vegetables named. For example, the writer of the article in question quotes the figures giving the acreage of potatoes and characterizes them as far below the truth. He, however, fails to quote the note at the foot of the page, which fully explains why the table does not show the total acreage in potatoes, which figures will be given in a later bulletin or in the final report on agriculture. The note says:

The fact must not be lost sight of that in making up this report no account has been taken of sweet or Irish potatoes or onions grown as great staple farm crops, or of any vegetables growing in market gardens.

If the farmers of California gave the proper figures to the census enumerators last June, they may rest assured that every acre of potato growth in the State in the census year will be accounted for in the final reports.

The article professes to give the table of the bulletin showing acreage of leading vegetables on the Pacific Coast, but leaves out entirely the column headed miscellaneous, thus making it appear that the total truck farming acreage shown by the bulletin is 5903, whereas it is really, as plainly printed in the table, 14,357, there being 8454 acres entered under the head of miscellaneous. This was made necessary for the reason that the growers failed to respond on the special schedules sent to them to the questions as to what varieties of vegetables these truck farms produced. The fact that considerably more than half the truck farm acreage had to be entered as miscellaneous accounts for the apparently small showing of each particular variety. If the farmers of California had only answered the schedule questions, the acreage now given as miscellaneous would without doubt have shown the extra acreage of asparagus, celery, beets, etc., claimed. At the same time it should be noted that the aggregate truck farming acreage of the Pacific Coast is correctly given, although it was impossible to distribute it exactly among the different varieties of vegetables.

It is important also to bear in mind that the crop figures of all farm crops of the United States are those of the crops grown in the year 1889, and not those of 1890 or 1891. The 11th census does not deal with the largely increased acreage of 1890 and 1891, as reported on many farm crops.

The statement is made that 3000 carloads of vegetables went out of California last year (1890), but as these consisted largely of potatoes grown as "staple farm crops" in Los Angeles, Orange and San Bernardino counties, and of dried Lima beans from Ventura and other coast counties, they were not considered in this bulletin, but will be duly accounted for in the regular agricultural statistics when California, as well as every other State, will get due credit for all products of 1889.

The criticisms made on the viticulture bulletin are equally unjustified by the facts. In speaking of the vineyard acreage, as shown by the bulletin, the following statement is made in the article:

California, for instance, is credited with a total area of 155,000 acres of vineyards in bearing. These are the same figures that have done duty for some seven or eight years in every article that has been written about our viticultural industry.

I need simply say, in reply to this, that according to the record of the California State Board of Viticulture—which must certainly be considered competent authority—the number

of acres of vineyards in the State in 1888, not seven or eight years ago, is 144,281. The Census Office figures for 1889, the uncensused year, give 155,277 acres, or an increase of 10,996 acres in one year over the official return of the State Board of Viticulture.

Special reference is made in the article to the vineyard acreage of Fresno county, as given in the bulletin, 19,750 acres, and it is stated that, according to a newspaper published at Fresno, there are over 50,000 acres of vineyards in this county. And yet, according to the State Viticultural Commission, this county had, in 1888, but one year before, only 15,000 acres in vines. It should be remembered that the Census Office figures are for the year 1889, and do not pretend to show the present acreage in vineyards. Fresno county now has a greatly increased acreage, stimulated by the profits of her raisin industry, and this fact is mentioned on page 10 of the bulletin as follows:

Fresno county has, at this time (July, 1890) some 25,000 acres of bearing vines and 15,000 acres of new plantings, the larger portion of which is grown for raisins.

The bulletin gives the average yield of grapes per acre in California, for the year 1889, as 1.77 tons. In characterizing these figures as far below the actual yield, the writer of the article has again lost sight of the fact that these statistics were collected for 1889, and not for any other year. This low average is explained in a foot note (c), on page 4, which reads as follows:

The average yield of grapes per acre for California was, in the year 1889 (the Census crop), considerably reduced by the heavy rains in October, coming a month sooner than usual, and destroying a large percentage of the crop. The usual yield of grapes per acre in California is from 1½ to 10 tons, the latter figure being for raisin grapes, of which two and sometimes three crops are harvested from the same vines in one season.

In reference to the statements concerning the values of grapes and wines, as given in the bulletin, it is only necessary to state that the figures were furnished by the growers themselves, and do not, as the writer supposes, refer to retail prices, but to the prices received by the producer at home. This is distinctly stated in the bulletin, note a, page 4, as follows:

The price of wine, as given for the various divisions and States in the tables of this bulletin, is that of the producer, being the home or farm value, and not the export or commercial price, after it may have passed through several hands.

The comparison made in the article between the prices given for California and those of Georgia is very misleading. While Georgia is making rapid progress in the production of grapes, she makes little, if any claim, as a wine-producing State. The prices of her wines, as given by those who produce them, the same as in California, average \$1.15 per gallon. She only produced in the Census year a little over 100,000 gallons, as compared with California's nearly 15,000,000 gallons. It is well known that any product grown in a small way and retailed out, even by the producer, always brings a larger price than when grown in very large quantities. The grapes raised in Georgia are largely sold for table purposes, reaching the Northern markets very early in the season, and, therefore, bringing the larger price as compared with the grapes of California, by far the greater proportion of which are made into wine.

This answers all the statements based upon actual figures from the bulletin, which is the only feature of the article referred to which the Census Office can properly deal with.

The facts and figures used in the preparation of both these bulletins were obtained primarily from the producers themselves, supplemented, in case of failure to respond to the census inquiries, by special agents who were carefully selected for their expert knowledge concerning these industries, and it is believed by the Census Office that the results published are as accurate as it is possible to make them.

ROBERT P. PORTER,  
Superintendent of Census.

Washington May 2 1891.

## TACK AND HARM.

## The Trotting Horse as an Agricultural Factor.

In some localities (and may they ever grow less) there is an erroneous idea that the "American Trotter" is a horse wholly unfitted and unsuited for the average farmer to breed or use, and this class of breeders, while they are continually crying down the "trotter," are striving to breed something possessing his good qualities which shall be known by some other name; hence they are ever parading some foreign importation and attempting to show his superiority over the American trotting horse for the average farmer to use.

The foreign breeds don't suit the average farmer, and the American trotter he thinks beyond him and unsuited for him to breed profitably or for his use—a specialty with which he has no business. To show that this is an erroneous and mistaken idea is one object of this article. Americans are credited with a great amount of patriotism and love of everything American, hence their great appreciation and love of the American trotter, the youngest of all the roadster breeds and de-



oidedly the best and most profitable for the average farmer to raise. The growth and development of this young and superior breed is one of the wonders of the century, and the strides forward made by this young giant are nothing short of the marvelous; and yet the breed is in its infancy only, and the farmer, generally wide-awake on most subjects, who allows this breed to grow and develop beyond him without availing himself of the opportunity which he now has, soon will find himself of the Rip Van Winkle style of breeder, and when he wakes up he will find that the procession has passed by. If every agricultural factor were treated in the same indifferent, careless manner, and with the same lack of knowledge and information by the average farmer that he displays in the breeding of horses, it would be a wonder indeed to find one possessed of earning capacity sufficient to keep himself in shoes alone. It is an admitted fact beyond oavil that scrub stock is unprofitable and a waste of time in raising, and no farmer is rich enough to afford to keep poor and inferior stock of any kind. The best, the very best, is the only profitable kind. No farmer denies this in the breeding of cattle, sheep and hogs. Then why for a moment continue to breed scrub horses? It won't pay, it don't pay, and every farmer knows it, and yet for the few dollars saved in the amount of service fee a great many who are awake and alive to the needs and demands of the time in farming generally, pass this greatest of all agricultural factors by with neglect, apparently satisfied with the lowest-priced sire within reach, the horse and his blood lines being a secondary matter. It is claimed, and not disputed, that no industry to-day in America has the amount of capital invested in it that the breeding of the American trotter has, and yet a large part of the capital so invested is by wealthy men, who hire and employ every part and detail of it. They are informed and well read on every theoretical part connected with the enterprise; everything that money can buy is added to the venture. That such enterprises and ventures are conducted on anything but an economical plan goes almost without saying, and yet, with the exception of rare instances, they have proven unsuccessful and good paying investments for their owners. Most of their establishments are engaged in breeding the trotter solely for the greatest flight of speed possible to be attained, bending all their thoughts and energies in that one direction, and toward the accomplishment of that end or object only, and to them the same will have been reached when that result alone can be accomplished.

I can see no place where a breeder has any per cent over the average farmer of good sound horse sense in breeding the American roadster, nor where he has any more than an even chance with him. The farmer has time and opportunity for being as well posted in blood lines, and is possessed of as good sound sense as the average breeder for applying them, with the additional advantage of being on the ground and having the practical knowledge which every day oversight, care and inspection gives him over the theorist who trusts almost entirely to others. That the average farmer can compete successfully in breeding the trotter as a racing machine only, and in educating him for the track, is very doubtful indeed, and it would be better judgment not to try it; but in breeding the trotter for practical use, he is situated so as to compete successfully with all competitors, and to no breed can be turned with the same assurance of success attending his efforts as to the trotting bred horse. In addition to being the superior of all the breeds asking him for patronage to-day, there is the factor of speed, which is not possessed by any others, and which is by no means to be overlooked, because not made a specialty. To find out which are the promising ones, with very little outlay and expense, and without sending the youngsters away from home, can be easily done. There are very few farms indeed, upon which a miniature track cannot be constructed at a nominal cost, and during the least busy season the colts educated and developed sufficiently to give an idea of what their quality is. Experienced trainers—not theorists, but men with years of every-day life and experience with colts—have written books giving general rules for breaking and handling the colts. These publications are within the reach of every farmer, and possessed of this knowledge, and with ordinary common sense and a good command over yourself, the average farmer can succeed in educating the colt enough to convince himself of the fact whether he is also breeding some speed with the other qualities aimed at. There is no danger of flooding the market with good ones. The trotting-bred horse of good size and style, smooth in conformation, sound and gentle, will always command a good market, and bring better prices than any other breed, because he is more generally useful, and the demand will always be for the best. For general farm use, for road use, and for the market, no breed can compare with the trotter.

It is a mistaken idea to suppose that beauty of form and elegance of style and finish are incompatible with the trotter. Some of the very fastest performers are horses that even the average farmer would call handsome, extremely so, showing conclusively that there is no inconsistency in a horse being possessed of beauty of form, fine size and style, and also of extreme trotting speed.

The trotting horse is capable of possessing something more than mere speed, of being

something more than a fast trotter, booted and weighted, and so balanced that he can, perhaps, on a smooth track show a wonderful burst of speed. He possesses all the qualities required by the farmer breeder, a good solid color, 16 hands high—not less than 15.3 hands—good mane and tail, a bold and trappy gait, free from boots and weights, round, smooth and symmetrical form, a type of horse that will always command a large price.

I know of no better, nor can I think or believe there is any better factor in agriculture than the breeding of the trotting-bred horse of good size, style, conformation and action. What factor of equal value will compare in earning capacity with that of a given number of brood mares, richly bred in trotting lines all of uniform color, style, conformation and action, descended from carefully selected ancestors for generations enough to have fixed the type. There is nothing improbable nor impossible in fixing the type, so that the produce will be uniform in horses more than in the breeding of other animals. While the farmer carefully selects and crosses time and again in the breeding of cattle, hogs and other stock, yet in the breeding of horses, he generally expects to reach the acme in the first cross, and in the event of failure to realize all he expected, he very often is so disappointed that he neglects to follow the object he sought to attain any further. If "like begets like, or the likeness of some ancestor," and we want the perfect roadster, then we must be sure and properly use the law of selection, use a little of the same judgment that you use in other breeding ventures; see that the mare possesses form, size, style and good action.

Then select a stallion possessing all the qualities that you desire to breed for, as it is within your power to do. See that his ancestors were possessed of all the qualities that you desire to obtain. The writer has been so situated for the past seven years that he has yearly been brought in contact with from 75 to 100 farmers who were looking for stallions for breeding purposes, and in no one instance do I now recall that one ever asked regarding the conformation, size, etc., of the ancestors of the stallion examined. Remember that there is no distinct breed of horses in existence to-day formed by accidental mixture, but only by continued cultivation; that while men frequently allow themselves to indorse mistakes, nature never does.

The standard registered lines are decidedly the more desirable to use and follow; in fact, the only ones that can successfully and profitably be used. There is no doubt or question regarding the breeding of a standard registered animal, his ancestry can be traced readily and surely. It shows that he springs from ancestry possessing breeding sufficient to transmit to him standard rank, and that they were possessed of certain qualities requisite, which enabled them to be registered.

The breeding and raising of the grandest breed of roadsters ever known, combining uniformity of size, style and finish, is within the reach of the average farmer, and promising a momentary return far in excess of that of any other known agricultural factor. The handwriting on the wall is plain.—"Auburn" in *Wallace's Monthly*.

## METEOROLOGICAL.

### Additional Information from the Signal Service.

EDITORS PRESS:—It has been ascertained by careful study and investigation that the storms which enter the Pacific Coast near Vancouver's Island pass directly eastward into the interior of the country, and thence to the Atlantic Ocean. The weather on the Pacific Coast is not only dependent on these storms during their passage over that region, but it is also influenced by them during their movement eastward to and beyond the Rocky Mountains. It is therefore necessary that this office should be in possession of information concerning the weather conditions which prevail over the entire country west of the Mississippi Valley. Efforts which have been made for some time to secure the necessary telegraphic reports have finally been partially successful, and this office is now in daily receipt of the general weather conditions which prevail west of the 90th meridian. It is desired that the public generally, in California, and especially those engaged in the great fruit industry of the State, shall benefit by the additional information now collected at this office. It may be made useful as follows: (1) To shippers of perishable goods between San Francisco and eastern cities. (2) To tourists and others who may be desirous of obtaining information as to probable weather changes between San Francisco and the Mississippi Valley. (3) To those interested in the occurrence of early rains in Southern California. More reports however, are needed for this purpose which it is hoped may be obtained before the appearance of these rains.

Application may be made to this office for the desired information in any way most convenient to those making the inquiry. The office is connected by telephone and telegraph with all parts of California. Please give the information contained in this communication publicity.

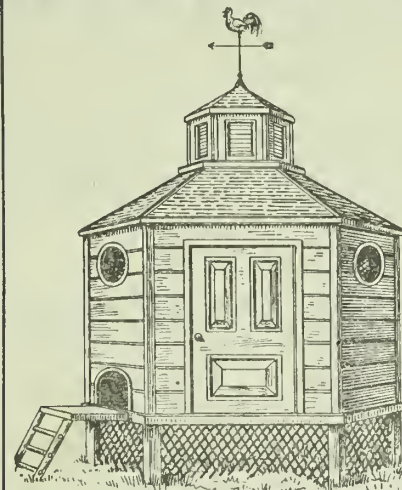
JNO. P. FINLEY.

2nd. Lieut. 19th Inf'ty A. S. O. In charge, San Francisco, May 15.

## POULTRY YARD.

### Poultry Literature.

EDITORS PRESS:—In the matter of poultry literature as in that of cows, horses, etc., or in that of any other kind of stock which one treats of separately and alone, there would seem to be very little margin for variety or for matters in any great or diversified quantity, and of a nature to interest and at the same time to instruct the world be poultry breeder. In fact to do this, one has to almost confine himself (or herself as the case may be) to the relation of certain facts, or rather the laying down of certain rules, precautions and modes of procedure in cases that sooner or later present themselves to any one engaged in the raising of poultry and the keeping of hens for profit in eggs, or meat, or both. As in commercial practice, or in the practice of any of the professions, one needs to continually refresh his memory to be enabled to keep up in the knowledge necessary to conduct his business successfully and make it pleasant as well as profitable. In the



A Handsome Poultry House.

keeping of fowls there is constant necessity for this refreshing of the memory, the renewing or recalling of the knowledge once had, but lost because not called into practice, as the keeping of poultry seems to be subject to more and more varied conditions than the keeping of any other one kind of stock. It pays one abundantly to take a reliable poultry journal, or a thorough going agricultural paper which treats of matters of interest and value to one in his business in a clear and practical way, and one such matter of interest may alone be worth to a person many times the subscription price of his paper, as it happens to convey first the information he needs to extricate him from a dilemma in which he has found himself, and enables him to at once put in practice the necessary means to overcome his difficulty and save himself from, it may be, severe loss.

As so much has been said of the keeping of poultry from a purely utilitarian standpoint, it would perhaps not be amiss to consider it in the light of an ornamentation and a recreation as well as for profit. I have been led to this consideration of the matter by having seen that they may be combined to very good purpose. Passing not long since by a fine, well appointed and expensive residence with beautiful grounds and an extensive and well kept lawn, my attention was called to the presence of a score or so of fowls of brilliant plumage dotting the lawn here and there, and adding by their presence a still further and finished charm to the beauty of the whole. Indeed it seemed to me that had the birds been taken away, it would have been shorn of half its charming effect. The fowls were of the kind known as the Silver Spangled Poland than which no variety is more beautiful both in its plumage and general presence, and there are many beautiful varieties as the Gold or Silver Spangled Hamburg, White Crested Black Poland, Gold Laced Poland, Gold Spangled Wyandotte—a large fine looking owl of rich plumage and majestic carriage.

Of these varieties the Hamburg is the smallest, but bright and animated in its ways and of brilliant plumage. The ground color of the plumage of the Silver Spangled Poland should be of silver white with well-defined, horseshoe-shaped black spangles. In the cock the hackle feathers are white, edged and tipped with black. In the hen each hackle feather has a spangle on the end, tail feathers clear white with spangles on the end. The spangles on the wing coverts are large and regular in both sexes so as to form two well-defined bars across each wing. The proper spangle on the breast is all important. The crest should be full and regular; feathers black at the base and tip with white between. A few white feathers frequently appear after the second molt in the very best hens. Ear lobes small and white; no wattles, they being usually replaced by a black or spangled beard. The weight of the cock is from six to seven pounds; that of the hen from four to five pounds. Besides the moon-shaped spangles many of the birds are shown with laced feathers, that is, with an edging of black on the outline of the feathers, but thicker on the end. This marking when perfect is very beautiful, and they cer-

tainly rank among the very choicest and most beautiful of fowls whether considered for their beauty or their variety. The newly hatched chicks of this variety are pretty, creamy-white little fellows interspersed with slaty dim on the back, head and neck marked with longitudinal stripes down the back, black eyes, light lead colored legs, and a swelling of the down on the crown of the head indicative of the future top-knot which is exactly the color of a powdered wig. At a very early age they acquire their peculiar distinctive features, and are then the most elegant little miniature fowls it is possible to imagine. The distinction of sex is not very manifest till they are nearly full grown, and as I have said, although there are many beautiful varieties desirable as ornaments to a lawn, there are none in my view superior to the Silver Spangled Poland, and the dotting of the velvety surface of the well-kept lawn was pleasing and beautiful in the extreme, pleasing and beautiful to the eye, and satisfying one's sense of what constitutes a proper combination of the beautiful with the useful, useful because forming a pleasant source of recreation, and because also of the undoubtedly fresh laid eggs they give, and which are always fresher and nicer because one's own fowls lay them.

While looking at this picture and wondering how I could make the acquaintance of the fowls and learn more about them, a gentleman passed along the walk and entered the gate, and to my intense gratification I recognized in him an old time friend whom I had not seen for some years, and who at the time of my losing sight of him, was engaged in prospecting extensively and persistently for quartz leads, and who as he afterwards informed me had finally "struck it rich" and sold out for a good figure and was now enjoying life as he had always wished and intended to, should fortune favor him. I congratulated him on his good fortune and could not forbear commending his taste in the "building up of his home."

Passing with him into the house, I renewed my acquaintance with his "good lady," and after a few minutes spent in recalling of old times and pleasant chat, I took my leave, promising myself many future visits.

Passing out into the grounds and telling him how beautiful I thought them and how much of beauty the birds added, he replied: "Yes, I would not take any money for my beauties. I think everything of them and spend lots of time petting them and talking to them, and they know me and as soon as they see me they huddle around me to see what I've got for them"—and in fact as soon as we got where they were they all flocked around us, at first somewhat timidly and with many suspicious inquiring glances at me, but finally concluded that it was all right and pressed around singing, and even perching on his shoulder and head with perfect confidence while he talked to them and stroked their glossy feathers.

"Why," he said, "my wife is just a little bit jealous of them and says she believes I think more of them than I do of her; and now, as you have seen the fowls, if you have time, come and see where they live," pointing as he spoke to a neat, tasty structure flanking the lawn and forming with the trees and vines in which it nestled a very pretty background. The building was octagonal in shape, placed on piles in order to prevent the encroachment of rats and other animals destructive to eggs and fowls. It was about 10 feet in diameter and 6 or 7 feet high at the eaves, the sills of four by four joists; the plates of three by four halved and nailed together at the joints and the standing of two by four joists and covered with rustic; the floor and roofing of tongued and grooved spruce. An eight-square frame supported the tops of the rafters, leaving an opening of about ten inches in diameter on which was placed an octagon chimney for a ventilator and which made a very pretty finish. The piles or piers on which the building was placed were about two feet high and placed on flat stones or cement. Besides the door, there were four oval windows latticed and an entrance hole at the bottom of the house with a landing and a ladder leading to it from the ground. A portion of the interior was occupied by roosts extending from an upright in the center to the side of the house spirally, the first one about two feet from the floor and the others rising gradually to six feet from the floor and 18 inches apart, having under them a platform or floor at an angle of about 45 degrees to catch and carry down the droppings of the fowls, rendering it easy and more convenient to clean out the manure.

The space beneath this platform or floor was appropriated to nests 15 inches square and one foot high, the front of the platform being latticed in order to give an appearance of secretiveness and admit of a free circulation of air to the nests, and the whole thing struck me as being very neat, very practical and very tasty. The building was painted in two colors on the outside and the inside neatly white-washed. The chimney or ventilator was not sided up solidly but with slats placed at an angle to admit of free passage of air.

"And now you have seen it all," he said, "and I want you to come some morning and breakfast with us and taste some fresh-laid eggs that are fresh-laid and as nice as they have them. Why," said he, "they give us all we can possibly use, and we are great egg-eaters, besides lots to sell, paying all expenses of feed, giving us our own eggs free and a handsome profit besides, almost equal to a 'quartz lead.'"

L. B. GEFFROY.

Lodi, May 10th.



## PATRONS OF HUSBANDRY.

## Our Grange Edition.

The Grange news of most general interest is given through all editions of our paper on this page. Several supplemental pages, devoted to Grange interests, are added in our Grange edition, which any subscriber can receive in lieu of the regular edition WITHOUT EXTRA COST, by addressing the publishers.

## The Master's Desk.

R. W. DAVIS, W. M. S. G. OF CALIFORNIA.

An important matter, one on which each subordinate Grange ought to take action, is the one which requests the Government to furnish daily telegraphic bulletins of the agricultural outlook. For the amount of money to be expended, there is no investment in which Uncle Sam could do more good to a great number of people than by furnishing such data as will enable the producers of grains, fruits, vegetables and meats to know something reliable and recent of the outlook for their business. Nor will the benefit be confined to the producers alone. The consumers will thus be informed of the condition of growing crops, and will the better know what to buy and in what quantities to buy. Let each subordinate Grange consider this subject, and if favorably inclined, let them pass resolutions calling on the Government to furnish the desired information. Send these resolutions, *under seal*, properly attested, to Hon. J. M. Rusk, Secretary of Agriculture, Washington, D. C.

Santa Rosa Grange is making an effort to buy a piano.

The harvest will soon be over, and then Worthy Ceres will ask you to join with her in celebrating the event. Keep an open eye for the date, and begin to prepare your program. Ceres, in each subordinate, should assume the leadership, and make the occasion a joyful one.

Let your boy whistle; it don't hurt you, and it does him much good.

If mothers want to keep sons out of saloons, let them make home the most cheerful place on earth.

Let your heart overflow now and then. If with joy the better, but if filled with sorrow, let some one know it. Go to the Grange and speak from the fullness of the heart.

How many persons have you made happy during the year, now half gone? Be happy, and be sure to share that happiness.

This is the season of Memorial Days. Next Saturday the people of this Union will join in decorating graves, in singing loyal songs and in listening to orators tell of patriotism and valor. Next to the love of God and family comes the love of native land. Let us, one and all, without regard to sex, age, color or geographic section, join with those who wore the blue and those who wore the gray in commemorating the valor, loyalty and manhood of men who have been faithful to the Land of the Stars and Stripes. Our Order, too, has its Memorial Days. We should not forget those of our fraternity who have fought the good fight, who have kept the faith and who have gone before. Let their last resting-place be decorated with flowers! Let those of our sturdy band who yet remain see to it, that once in each year the graves of departed Patrons be appropriately covered with bouquets of ferns, grasses and sweetest flowers; and to this work of love and remembrance the attention of each subordinate Grange is hereby most respectfully directed. In many sections the Grange might join with the Grand Army of the Republic in this most beautiful and loyal ceremony of decorating graves of departed comrades.

Farmers' Institutes in California seem to be growing very fast, both in numbers as well as in popularity and good results. This is as it should be. Let those who till the soil know not only more of their business, but also of one another. Mutual understanding will bring mutual profit. There is no danger in knowing too much, provided that knowledge is honestly and fairly acquired and used.

The first wheat of the crop of 1891 is reported from Kern county, which reminds us that we ought to have several Granges in that fertile county. Won't some of Kern's thrifty farmers who read these lines take the matter in hand? Surely, the Grange-seed will grow in soil that produces and matures wheat as early as the 18th of May. But the Grange sheaves ought to be found in Kern! Who will see that they are? Farmers of Kern, call for a Deputy or for any desired information concerning the Grange, and let the Order of Patrons of Husbandry have a home in your blessed and fruitful county!

The political "whoop-up" is already to be heard in the distance, but there is one thing very apparent to a person almost blind. It is this feeling of great unrest among the professional men about the situation in 1892. They seem to want the office, but dread the chances which the coming campaign appears to be offering. One thing is now pretty well settled, to wit: Both of the old parties will have more bona fide farmers on their tickets than they

have had for many years past. Farmers must not forget, however, that this may be merely policy play, done to entrap them, and not done with good intent. Look well to the situation, fellow-farmers! Don't be in too big a hurry. Time is a great pulverizer. Even in politics wonders are sometimes unexpectedly wrought. Stand by your guns!

Don't forget that the next Legislature will be called upon to give the farmers a Mutual Insurance law. Vote for no man who is not in favor of such a law. We need it and need it badly enough.

A well prepared copy of the printed proceedings of the Eighteenth Annual Session of the New York State Grange is just at hand. It is replete with good thoughts, well said. Truly, it is remarkable how much the Grange has added to the literature of the day. If you think there are no elegant writers or attractive speakers connected with the Order of Patrons of Husbandry, the mistake is yours.

No words can fully express the regret which the writer feels at not being able to attend the sessions of the Oregon and Washington State Granges, to both of which, very polite and fraternal invitations had been received. But the long season of Grange work in California, together with a business much in need of personal supervision, and an aged father in need of care and companionship, render it impossible for the trip to be made. The hope is indulged that another year may offer the expected opportunity. In the mean time, brothers and sisters, know we are in full accord and working with you.

## New Grange at Glen Ellen.

EDITORS PRESS:—As per agreement with the farmers of Glen Ellen, I went there on Saturday, May 23d, and succeeded in organizing a Grange at that place with a charter list of fourteen. Owing to sickness, some of those whose names I had previously secured were not present, hence the small charter list.

The following is a list of their officers: Master, J. M. Zane; O., J. V. Miner; L., W. I. Williams; S., John M. Hendley; Ass't S., Martin Peter; Chap., L. Knight; Treas., C. H. W. Brunning; Sec'y, Robt. P. Hill; G. K., O. A. Kennedy; Pomona, Mrs. M. A. Miner; Flora, Mrs. M. A. Zane; Ceres, Mrs. Anna M. Williams; L. A. S., Miss Minnie Brunning; Trustees—Robt. P. Hill, 3 years; Mrs. Anna M. Williams, 2 years; John M. Hendley, 1 year.

Assisted by Bro. J. P. Whitaker, W. M., Bennett Valley Grange, I duly installed their officers. Bro. Whitaker also instructed them in the unwritten work in a clear and concise manner. Much interest was taken in the election of officers, and all seemed pleased with the bright prospects for a prosperous Grange.

On the second Saturday of June as many as possible from this new Grange will visit Bennett Valley Grange, at which time the third and fourth degrees will be conferred upon a class of five, with the usual harvest feast. On account of the lateness of the hour, I did not have time to carry out the full initiatory work, consequently their meeting with Bennett Valley Grange will be of much interest to them.

Bros. J. P. Whitaker, G. N. Whitaker, Holman Talbot, Sisters G. N. and J. P. Whitaker of Bennett Valley Grange, and Sister E. M. Hudson of Santa Rosa Grange kindly assisted in the work of organizing the new Grange.

Don Mills.  
Santa Rosa, May 24.

## What the Grange Has Done

We acknowledge receipt of the proceedings of the 18th annual session of the West Virginia Grange. From its well filled pages of useful information we excerpt the following:

Through the influence of the Grange upon the National Legislature the extension of the patents on sewing machines was prevented, saving to the people fully 50 per cent in the prices, amounting to millions of dollars annually. Through what is known as Grange legislation transportation companies have been brought under the control of law, bringing out the decision of the Supreme Court of the United States that the creature cannot be greater than the creator; that transportation companies are subject to the control of the Government.

Through the influence of the Grange the national oleomargarine law was passed, controlling and restricting the sale of adulterated butter; requiring oleomargarine, butterine and suine to be branded and sold as such, thus protecting the consumer as well as producer. Also the State oleomargarine law which prohibits the manufacture and sale of oleomargarine in this commonwealth.

Through the influence of the Grange, legislation has been secured, driving out from this country alien landlords; reserving American lands for actual settlers, and preserving our public domain for American homes.

Through the influence of the Grange the Inter-State commerce law was passed, which will, in due time, bring the entire transportation facilities under national control, protecting the people as well as the transportation companies.

Through the influence of the Grange the Agricultural Department was created, presided over by a Secretary of Agriculture in the

President's Cabinet, thus giving the farmers a voice in the policy of the National Government as it affects the agricultural interests.

It was through the influence of the Grange that a direct, co-operative trade system has been established, through which the farmers can purchase direct from the manufacturers and importers.

It was through the Grange that the farmer's social and political influence has been enlarged, and his knowledge of public affairs advanced, and it will be through the Grange that the tariff and currency questions will finally be settled on a just and equitable basis.

## Reforms Breed Opposition.

[Read by SISTER M. F. MERRILL at Lockeford Grange Picnic.]

There is nothing that strikes the student as more significant than the opposition which has always been encountered by great reforms. From the beginning of historical record there has been no effort aiming at the advancement of the human race; there has been no scheme of progress, however pure in its conception and strong in its ultimate aim, but has met bitter opponents, not only among those whom passion, interest or prejudice might naturally array against it, but also among those to whom we might reasonably look to support whatever is for the best interests of the human race; therefore, in considering the history of any reform, we must make our observations from more than one standpoint. We must imagine ourselves looking at it from the darkness of its past with the clouds of ignorance and prejudice obscuring the clear light of justice and reason. Then what a mighty difference when we consider it an established fact with the fogs and mists of selfish passion swept away. How weak and childish and easily answered seem all the arguments against an accomplished reform. We wonder how any mind, however weak, could have been deceived by them, and yet with what assurance and bitterness they were once advanced.

When the clear light of the future is thrown upon the opinions of the present, it will bring out in strong relief the difference between the opponents and the supporters of any of the great progressive movements of to-day. Then how selfish and culpably blind will appear the one—how noble and far-seeing the other!

## Legitimate Reforms Never Go Backward.

Any man who places himself in opposition to a reform should look well to the situation. Such movements never go backward, and the time will come when his error will be brought home to him.

I see a man looking over a united land, freed from the black curse of slavery. He gazes upon a new South rising into a grander life from the rivers of a hideous system which he would have perpetuated; he listens to his descendant singing songs of thanksgiving for their deliverance from a usage which he would have fastened upon them forever; he turns away from the beautiful picture, and reads through blinding tears the history of his country, one page of which he has helped to redder with fraternal blood, and upon which his name can never be written with honor; he gazes upon the enduring monument of his country's fame, one grand stone of which he never helped to put in place, and he turns away, murmuring sadly, I was mistaken.

Yes, you were mistaken, and hundreds of thousands of brave men perished upon the battle-field! You were mistaken, and widows' tears bedewed the land. You were mistaken, and orphans' walls sounded like a mighty minor strain from shore to shore! You were mistaken, and your mistake goes echoing down the corridors of time forever! Any man who places himself

## A Bar in the Way of Human Progress.

Should read history carefully, and profit by the reading. He should reflect calmly and dispassionately upon his responsibility in the matter, and he should remember that such responsibility is to be measured only by the extent of his influence; and he may be certain that whatever good that influence has prevented, that whatever evil that influence has, perhaps unconsciously nurtured, he may be certain that however blind he now is, he will one day see, and gazing at the mighty onward sweep of the great world he has so punily endeavored to retard, shut out forever from the honor and glory of having helped to attain the grand result, he, too, will sadly turn and say: "I was mistaken."

May we, as Patrons of Husbandry, be ever endowed with the clear foresight which will enable us to look at the questions of to-day from the standpoint of to-morrow. May we be able to cast aside all the selfish passions and stubborn prejudices of the hour, and when we are called upon to make a decision upon any point at issue, may we make it as though the question were one already definitely settled in a way calculated to advance the best interests of humanity. May we be pure, unselfish, far-seeing patriots, as well as Patrons, ever ready to assist our nation and our race in the upward and onward struggle. May we be broad-minded and liberal enough to claim "the world for our country, and so good as our religion." Then could we, with the hero of Bellamy's "Looking Backward," project ourselves into futurity, we would find our names inscribed on the mighty records of the past as being ever on the side of justice and of progress.

## The Grange and Partisan Politics.

Bro. Mortimer Whitehead, National Grange Lecturer, writes: From my point of view, Grange work is moving on solidly, safely and surely on the good, progressive and yet conservative lines of our Order. While we are carefully avoiding mixing up in third party, or taking any other partisan action, I know that we never had so many independent voters in our Order as at this time, and the influence of this Grange education is being felt outside of the Grange in all parties, and never so much as right now. The following clipping from Washington Post of yesterday (May 19th) places our Order properly before the public:

EDITOR POST:—We notice in your account of the convention about to be held in Cincinnati, as found in your issue of to-day, that you again make the mistake of confusing the National organization of farmers, known as the Patrons of Husbandry, or the Grange, with other farmers' associations, and by so doing place it in a wrong position before the public. In the article alluded to, it states: "A great many of the Southern Grangers are kicking," etc. Now, the facts are, that the Grange will not be represented as such at the Cincinnati convention. However much it may sympathize with any movement looking to the betterment of the agricultural interests of our country, as an organization, it cannot take part in political contentions of any kind; and, as quoted in our communication of January 24th last, which you favored us by printing, the National Grange has kindly but firmly declined to take part in conventions or conferences looking to direct partisan action. We desire to reaffirm our statements then made, in order that our organization may be properly understood, and that it may neither receive credit nor blame when either is not justly due. Very respectfully, JOHN TRIMBLE, Secretary of the National Grange, P. of H.

MORTIMER WHITEHEAD, Lecturer of the National Grange, P. of H.

## Death of Sister Wilcox.

Many readers will hear with sadness of the death of Sister Wilcox of San Jose Grange, wife of Hon. I. A. Wilcox, a well-known pioneer Patron and Past Master of the same Grange. Sister Wilcox was a lady of exceptional refinement of mind and heart qualities, which won esteem and endeared her to those who came within the circle of her acquaintance.

She was very bright, active and energetic in good words and works, and her death at the early age of 53 plunges her family in deep bereavement, and finds many sincere mourners beyond this privileged circle.

Mrs. Wilcox was born in Buffalo, N. Y., and came to this State with her family at an early day, locating at Fruitvale in Alameda county, where her father had a nursery for a number of years. It was here that she met and married her future husband. About 24 years ago Mr. and Mrs. Wilcox removed to their fine property near Santa Clara, and developed it in fruit lines until it became one of the best known places in the fine valley in which it is located. She was the faithful helpmeet of her husband, and has always been a potent factor in the many successes which he has attained in horticulture and public affairs. Here, too, they reared their family of five children, the youngest now in his eleventh year.

Mrs. Wilcox died, after a very short illness, on May 13. The funeral services were conducted both at the home in Santa Clara and in the cemetery at Oakland by Rev. Mr. Newell, Presbyterian minister at Santa Clara. The bearers included near friends from Santa Clara and Oakland. She was laid to rest in the beautiful Mountain View burial place where only a few months ago Mrs. Abbott, her mother, sought her final resting-place, after a long and useful life of 80 years.

## Bro. Mortimer Whitehead in Census Work.

BRO. DEWEY:—So little work has been done in the past for horticulture in a U. S. Census, that I made it one of my specialties, and we are getting together many valuable facts and figures. Agriculture always does have a rough time of it, and the Census is no exception. I sent you a bulletin on "Floriculture," some days ago, and we are now nearly ready to give out the official figures on horses, mules, and (for the first time separate from mule) asses, or "burros," etc. "Live Stock on Ranges" is nearly ready, and I am now giving special attention to "Live Stock Not on Farms," horses, cattle, etc., in cities, villages, etc., (never taken in Census before). Yours fraternally, MORTIMER WHITEHEAD.

Washington, D. C., May 20.

[A full abstract of the valuable bulletin on "Floriculture," to which Bro. Whitehead alludes was given on page 486 of the RURAL of May 16. We shall be glad to see the results of the live-stock work, and to give our readers the benefit thereof.—EDS. PRESS.]

WATSONVILLE GRANGE PICNIC.—The annual basket picnic of the Watsonville Grange will be held at Aptos on June 6th. Singing, dancing and various other amusements will render the occasion pleasurable. A select literary program, including addresses on the leading questions of the day, will also be given. Everybody is invited to bring their baskets, their families, their sisters, their cousins and their aunts, and meet their neighbors and friends in one day of recreation at least, in the year. All farmers are especially invited.—Rustler.



## FARMERS' ALLIANCE.

## Alliance Edition.

Subscribers can receive our FARMERS' ALLIANCE EDITION WITHOUT EXTRA COST, by applying for the same. That edition contains several supplemental pages of Alliance matter, in addition to that which appears on this page through all editions.

## President Cannon on the Sub-Treasury or Land-Loan Bills.

Mr. Edward Berwick—DEAR SIR: I received letter and clipping, and while I do not feel called upon to explain the workings of the Sub-Treasury or Land-Loan bills demanded by the Alliance; still, there are many who are honestly seeking after light on this subject, like Mr. Berwick, and a few points may be of interest to them. Mr. Berwick evidently has not learned his A B C's yet in Alliance principles. He says, "I don't see how a Government can borrow money at 3 per cent and loan it to the farmers at 2 per cent." My dear sir, no sensible man can see how that can be done. Putting the Alliance demands in that light is to make it ridiculous, and no well-informed person in the United States will put it so. The time is past when such statements will pass current.

Farmers demand that more money be put in circulation by the Government. This demand is admitted to be a necessity by the best men in the nation. The machinery to get this increased volume into the hands of the people is the question to be decided. Stanford has a scheme, Featherstone has a scheme, the Alliance has one; none of this machinery is yet perfected, but it will be before long.

Mr. Berwick says, "It would be nice for me to mortgage my farm for \$10,000 at 2 per cent, and loan it to the other fellow at 7 per cent." But would not the "other fellow" be a fool to pay you 7 per cent when he could borrow also for 2 per cent? One of the greatest benefits the people will derive from this Government loan will be the fixing of the rate of interest by such loans in all the business of the country, and

## Will Break Down the Great Money Syndicates

In the country, which are sapping the lifeblood of all industries by the enormous rates of interest they demand of the wealth-producers. There are some who seem to think that such a scheme would destroy the value of money; there would be such a demand for it that the country would be flooded. This, I think, is a mistake. It would force the money now in the banks, or under the control of the great corporations and syndicates and trusts, to go to the people at the Government rate of interest, or lay idle in their vaults. When money can be borrowed at home for the rate of interest the Government charges, the business of the country will use the home money, and will cease to borrow from the Government. In this respect, it is flexible and will adjust itself to the demands of business. When your business will not justify your holding the loan, you will return the money to the Government and cancel your mortgage.

This scheme will not only fix the rate of interest, but will create an immense revenue to the Government, paid by the borrowers to it, instead of to the Shylocks as at present. This interest money will help to pay the expenses of the Government, and to that extent will relieve the people of taxation.

It is now claimed that we have two thousand millions of money in the United States. If that be so, we should have ten thousand million to do the business of the country, and should the Government loan that amount at 2 per cent, it would have an income from that source of \$200,000,000 per year, which, while it would save that amount of taxes to the people, would also save to the people the difference in interest between 2 per cent and 10 per cent, which would be about \$800,000,000 per annum. Don't you think such a saving to the hardy sons of toil worth a struggle?

Who opposes this great reform of the money system? The great money power of England and Germany, as well as that of the United States; and the Alliance expects to meet them all and determine once for all whether the almighty dollar or the almighty man rules the United States, and in that struggle we expect and will receive the support of all true lovers of liberty, justice, and the brotherhood of man. Yours respectfully, MARION CANNON, Ventura, May 21. State President.

PRESIDENT MARION CANNON of the Farmers' Alliance and Industrial Union, California, is winning golden opinions by his superb work for the Order. He is carrying on the work with a master hand. Thoughtful, industrious, independent, fearless and absolutely honest, he will make his administration long be remembered by the farmers of the State. When California is represented by Alliance members at Washington, and when every county in the State has been redeemed, President Cannon's leadership will be still more warmly appreciated.—Alliance Farmer.

PRES. CANNON'S ruling on questions submitted to him, are published in the Alliance edition of the RURAL PRESS. Any subscriber to the PRESS can have his name changed to the Alliance edition without extra cost, by sending us word to that effect. They get all there is in the regular edition besides four pages of Alliance news.

## Timely Words and Hints.

[By a State Organizer]

Various things affect the course of an organization, and make it successful or unsuccessful; but its methods are one of the most important of these things. Other things being equal, that society—that business organization—will succeed best which has the best methods.

The problems before us are how to get goods at the lowest possible prices without reducing the wages of the laborers engaged in their production; to economize in the matter of freight rates, and to reach the best markets. All these advantages can be secured more successfully by union, and, in fact, cannot be secured to any degree only by some sort of organization.

I trust it shall not be deemed improper for me to say here, parenthetically, that I am not one of those who believe that any great advance in prices can be secured by a union of farmers, to hold products off the market in the sense of the ordinary trust, or for any great length of time, but I think much can be done by an organization at once complete, accurate and secret, which shall gather and transmit to members of the Alliance only, statistics regarding acreage, prospects, product, the state of various markets, and prices, by which system, and the knowledge which it brings of what is being done in other sections and markets, (now, not "planting and marketing might be regulated," that is what I don't want to say, but by which) individuals could, should they choose each one for himself, voluntarily regulate his planting and marketing, and by which voluntary local or county co-operation to the same end might be guided. Such a system would never reach in practice the perfection which it does in imagination, but it would be an advance on the present state of things and would, naturally, grow in perfection with the increasing knowledge of those engaged in it. It is possible that it might be

## Desirable to Form Organizations

Within the Alliance for greater business security, making departments of information as the entirely different but excellently managed W. C. T. U. does. The California Fruit Union and the Unions of Orange Growers at Riverside and elsewhere are partial efforts in the direction I have indicated, confining their attention mostly to marketing, however.

But to resume. We desire to secure lower purchasing prices, better freight rates, and higher selling prices. We desire to do this by the simplest method and yet effective, one that requires the least capital and the most easily understood, and involves only a small, known, and fixed liability instead of the expensive and often large and ruinous assessments. Now let us look at the

## F. A. &amp; I. U. System in this State

For each State system of business co-operation is independent. The State Alliance selects a Business Agent. He is paid a fixed salary. He gives bonds, approved by the State Alliance or Executive Committee, fixed now in this State at \$25,000, but the amount of which may be raised by the Executive Committee whenever, in their judgment, they think it the interest of the Order. The agent is able to secure goods for members of the Order at wholesale prices, because the aggregate of the purchases made by him from the wholesale dealers and manufacturers entitles him to such prices. He stands, so far as volume of trade is concerned, to the wholesaler and manufacturer as any retail dealer. It is no matter what his (the State Business Agent's) relations to members of the Order may be. That is his personal lookout. It does not touch the principle upon which prices (wholesale prices) are given, unless retail merchants make it a pretext upon which to demand that the wholesalers shall discriminate against the Alliance. The State Business Agent sends to members of the Order lists of the goods he can furnish and the prices at which they may be had. These lists, self-interest requires, shall be kept secret.

The State agent does not buy goods in advance. He buys only upon orders from members, accompanied by the cash. These orders are usually placed in the hands of the Secretary, at subordinate Alliance meetings, to be sent together under seal. The expenses of the State business agent's office may be met in three ways. In some States, they are met entirely by a commission, varying from five per cent to say one per cent, figured upon the list prices and paid by the member when he sends in his order, which is in addition to the list prices. In other States, the expenses are paid out of the State Alliance treasury, out of the portion of the fees and dues remitted to it; in still other States, by a combination of both methods. In this State, the commission feature was adopted for this year from necessity, and was justified by the limited finances of new organization. There is some disposition to continue it, to some degree, permanently; but the membership of the Order is divided on the question of the wisdom of such a course. A decision, for at least the year then to ensue, will be given by the State Alliance, which is to meet at Los Angeles in next November. Those in favor of continuing the commission feature say that those who reap the direct benefit of the business co-operation should bear all the expense of it, while those opposed to the commission feature point out that the business co-operation, by bringing down prices generally, indirectly benefits many who do not get direct benefits; that therefore they should help to

hear its expenses (which should come entirely out of the fees and dues by warrant on the State Alliance treasury), and that this policy would have a tendency to solidify the Order. It is a subject which may be profitably discussed in a spirit of courtesy. Improved methods, sometimes new in their nature, are always possible.

## The Simplicity of the System

Of business co-operation herein outlined challenges admiration. The system requires no capital save the dues and the commission, which is regulated by the character and amount of the purchase. When a man has paid his dues, his financial responsibility in the absence of any "commission" is done, save possibly on local expenses of an unusual nature. There is no stock; there can be no assessments. The trouble, risk and capital necessary to store-keeping is left in the hands of men brought up to such business, and willing to shoulder its responsibilities. The benefits of the co-operation are not confined or monopolized mainly by a few stockholders or directors. Stock juggling is impossible; each member keeps his own accounts. The system is capable of indefinitely wide extension. It brings its benefits to the masses; it offers them on equal terms to all.

FRANK P. COOK.

## Alliance County Notes.

## Humboldt.

A large number of members of the Grizzly Bluff and Port Kenyon Alliances visited Centerville Alliance at their meeting on May 16th. A very good time was had and important subjects thoroughly discussed, visiting members taking part and introducing subjects for discussion and consideration. Meeting closed with a general good feeling of being benefited by the exchange of ideas and that such joint meetings cannot be held too frequently. They are both interesting and beneficial.—Western Watchman.

## San Luis Obispo.

The Grange and Alliance have appointed a joint committee to get up a dramatic entertainment for the purpose of raising funds to buy an organ. The entertainment is set for the 23d of next month at the big hall. The committee has decided upon the "District School," to be followed by a short farce and a fine musical program.—Arroyo Grande Herald.

## Santa Cruz.

The Farmers' Alliance of San Juan has appointed a committee to confer with the Pajaro Valley Railway Co., in regard to extending the railway to San Juan from Moss Landing. It will require but 12 miles of track, with the road already built. The line will run up the Carrero valley. The road will be easily built, the route offering no engineering difficulties. It is claimed that the transportation of this year's bountiful harvest will repay them for the construction of the line.—Surf.

At the last regular semi-monthly meeting of Scotts Valley Sub. Alliance, No. 314, a set of by-laws was adopted, and it was decided also to initiate only on the last meeting of each month. Five members were initiated, three were elected, and three applications for membership were received. The Committee on Entertainment reported that arrangements had been made for a public meeting to be held at the schoolhouse next Friday evening, May 22d. J. W. Hines of San Jose, State Organizer at Large of the Order, will address the meeting. The principles of reform advocated by the Alliance will then be open for free discussion to all. The floor will then be cleared for dancing. Admission to the speaking, free.

## Sutter.

W. W. Stewart, Sutter Co. Organizer, writes from Yuba City, May 24: I have just returned from a visit to Brittain Alliance of Sutter city, where I was royally treated by those wide awake, progressive brothers and sisters who are initiating new members at each meeting. Live Oak, Orange and other Alliances in this county are not to be forgotten in their steady and gallant advance, and although the hay season is at hand, there is no decline in the Alliance movement in old Sutter. May "God speed the light."—Alliance Light.

At the regular meeting of Orange Alliance, Yuba City, there was quite a large attendance, several being present from Live Oak Alliance. Two persons were initiated members of the Alliance and five others accepted who will become members at the next meeting. W. W. Stewart, the local Organizer, stated that the membership is increasing gradually throughout the county and members received at each meeting.—Marysville Democrat.

The Alliances in this county are gaining membership steadily and holding interesting meetings. Citrus Alliance held a meeting at the Barry schoolhouse, at which time a number of applicants joined the Order.—Farmer.

## Tulare.

The Armona Alliance was not behindhand at the Union Alliance picnic in the Hanford Grove last Friday. They were well represented in the procession from Creasy's corner, a good majority of the 80 members falling in line at the right time, ably conducted by their marshal, A. F. Jewett. Their banner is well worthy the general praise it received. It is made of white satin 18 by 22 inches, trimmed with gold fringe and hline silk cord and tassels. The Committee on Design were Myrtle Shay and Lizzie Smalley. Through their efforts Mrs. Irwin, of the Alliance, embroidered in

blue silk, "Armona Alliance, No. 4," on the reverse side. Miss Jennie Doyle beautifully reproduced in gold paint the badge inscription "F. A. & I. U." with the plow shield above.—Cor. Hanford Journal.

## Keep the Pot Boiling.

[From the State Lecturer.]

We are highly gratified with the interest and untiring energy Bro. Dawey is expending with the Alliance columns of the RURAL PRESS.

Personally, our time has been so occupied with correspondence, on the farm and in the lecture field, that we have been unable to even devote as much time to the official organ as should be devoted by the average member. Until recently, our brothers and sisters have contributed but little; but as time passes, and the smoke of the great battle can be seen in the distance, we are proud to see members taking a greater interest.

Contributions are being sent in more freely, public and private meetings are being "written up," the subscription list is swelling, and as a natural result, the Fraternal Edition has become more interesting and more satisfactory to the Order, and is exerting a far greater influence on the minds of those who are without our folds. But the end is not yet. Duty and a love of our great work both

## Demand that We Press Forward.

A public journal to be well conducted and really worth having must be well patronized. No person with ordinary financial ability can long afford to expend money to champion our cause without receiving a reasonable return. The least we can reasonably do is to see that the Fraternal Edition of the RURAL PRESS is in every Alliance and Grange household in the State; that an abundant supply of interesting material is furnished for publication; and last, but not least, that these subscriptions are paid for.

A large part of the public press seems to be waiting to see which way the "oat is going to jump," a small part is acting in support of the righteous demands of the great industrial classes, and another small part may be said to be acting in opposition.

How many of us are lending our support to the opposition press to defeat the ends of justice and the welfare of the masses? and by so doing we put a club in the hands of our common foe.

Of course to patronize that part of the public press that maintains the right is well and good, but particular attention is called to the fact that

## Our Official Organ

Should receive our hearty and abundant patronage. Its success and usefulness rests with us and it depends almost entirely on the liberal spirit with which we endorse and maintain it.

The National Economist is probably the best and ablest reform journal in the land, yet if the official organ of our own State was equally well patronized it would be equally as good.

To furnish an able and spirited journal without ample support and to slight a journal that is well supported are propositions equally unreasonable.

Value received is, or should be, the rule in all branches of business. This is the principle for which we so loudly clamor.

Brothers and sisters, let us support our official organ. This appeal is entirely devoid of selfish interest, as we have no personal aspiration and no financial concern to be subserved; and while we are endeavoring to do our duty to our State organ, let us not forget our national organ and our several faithful county organs. G.

## Conference with Interstate R. R. Commission.

Oakland Alliance, May 23d, proposed a conference with the Interstate R. R. Commissioners (now about to visit California) by resolution substantially as follows:

Resolved, That President Marion Cannon or the Executive Committee of California State Farmers' Alliance, if feasible, arrange for a meeting of conference and exchange of information (on behalf of the people on this coast interested in the regulation of transcontinental rates of freights and fares) with the U. S. Interstate R. R. Commissioners while they are visiting our State.

GIVE US THE RAILROADS.—The Chicago Sentinel thinks that one item like the following is sufficient answer to whole libraries of books by the Atkinsons, Sumners, Denbows, Guntons and other sakers who carry favor with rich monopolists by deriding all the efforts of the people to free themselves: "In Australia the Government owns the railroads. It only costs a person \$6.50 to ride 1000 miles there. Commutation rates for local service are still lower. A workman can ride to and from his work, a distance of six miles, for two cents a trip; 12 miles for 4 cents; 18 miles for 6 cents; 24 miles for 8 cents; 30 miles for 10 cents. Yearly tickets, good for 30-mile trips, are sold for \$17.40. This is the kind of centralization we need in this country. It centralizes bread and meat into the mouths of the workman's children and clothes on their backs." And yet, low as these rates seem to be, we are fully assured that there is a fair profit in the business. Statistics prove this beyond dispute.—Garden City Alliance.





### The Opening of the California Poppies.

To west and below where the snow summit looms,  
Stood an army of pike-pointed lances of green,  
So slenderly fashioned they scarce could be seen;  
How could they—such lilliput lances of green—  
The plains and the foothills were spotted all over  
With pinks of blue cammas and "purple-top"  
plumes,  
And blushes of bloom of the clover,  
And smelled sweet as bee bread;  
But the meadow lark laughed in his ripple of tune,  
For the meadow lark guessed what would happen at  
noon.

There were stamens of gold and petals of flame,  
Rolled up in each cute little conical cap,  
That slowly slipped up, and slipped up till it came  
Off chuck at the top with a snap;  
And its petals unrolled, flame, orange and gold,  
And airy, fairly swung on the stem,  
Till the land was afire with the color of them.

—Madge Morris in *Golden Era*.

### George McCarden's Back Channel.

George McCarden was a Virginia Scotchman, who migrated to California with thousands of other men from all parts of the world, in 1849. He traveled northward, and in 1852-53 became a successful miner on Indian creek, in Siskiyou county. In miners' phrase, he was "lucky," while the great majority of his associates were decidedly "unlucky" as miners. At one time he commanded at least \$40,000. This he lost in unsuccessful mining, and then poor George had nothing left but the golden memory of his more prosperous days.

If this was all there is to say, I might stop here and have recorded nothing but what befell many besides George McCarden. But a strangeness connected with his fate calls for the rest of the story.

Sometimes a heavy landslide on the side of the mountain completely fills up all the small water-courses in its track. These buried water-courses are called channels. A stream soon makes its way through and around the obstruction, and forms its channel anew. In streams where there is gold, the slides will of course cover it all up. If a miner comes to such a place, where he thinks there is gold, he is compelled to drift from the newer channel or some more convenient point to where he supposes the covered channel to be. This is called drifting to a back channel.

When George McCarden lost his fortune he was of middle age. He was a bachelor, and lived with his brother Peter, who had several children. It now became the dream of his life to make another fortune for Peter's children. He prospected the rich quartz ledges of the various branches of the Klamath river. After half a dozen years of hard work, in which he scarcely earned enough to pay his board, he fixed, as it turned out, his whole soul upon the belief that by drifting to a back channel at a certain place he would find much gold.

At some distance below this point, gold had been taken out, but never so high up. He asked no advice, and took none; but set himself to work with a faith as sublime and an endurance as great as were shown by Columbus.

The exact location that had so strange an attraction for him is about five or six miles from Oro Fino, on the Shackleford creek, which flows into Scott river. He built a cabin not far from the spot he had selected for the month of his tunnel, and began to dig. In about a week, he left the cabin one morning to visit his brother's family. When he met his brother he exclaimed:

"Well, Pete, the ground is broken. There is a fortune in that hill, and your children are going to get it, you know."

"I care very little whether they get it or not," his brother answered; "but I don't like to see you throw your time away in that mountain. It seems to me and to every one that speaks of it that every blow you strike is a hopeless waste of energy."

"Brother Pete," returned George, "if anybody knows where to find gold, that fellow is old George McCarden."

His little four-year-old niece Mary, who came up just then, took his attention. Lifting her on his knee, he stroked her flaxen curls tenderly, saying, "How would Mary like to ride in a fine carriage, drive gay horses, and live in grand style?"

"It would be very, very nice, Uncle George," replied the child. "But papa is too poor."

"What if he is poor?" said her uncle. "I am poor, too; but haven't I been rich? Well, I shall be rich again, pet."

"But, Uncle George," insisted the little girl, "papa and lots of folks say there is no gold in that mountain."

"Don't you listen to what any one says about my back channel but myself," said the miner. "Uncle George knows that there is gold in that mountain, and he's going to find it, too. Then my pet shall be a fine lady."

"Wouldn't that be lovely!" exclaimed the

charmed child, clasping her hands in ecstasy.

Thus did the old miner feed the minds of his brother's children with expectation, while he toiled patiently away in his tunnel. Slowly the work proceeded, for he was alone, and was not so strong as he had been. Foot by foot he burrowed into the ground, bending round and under innumerable huge, smooth-washed boulders.

Week after week and month after month sped away, and still the patient man worked away alone in the silent earth. The time of his labor extended to years. The boy's smile of its beginning had settled into the sedateness of a fixed purpose.

The early inquiries concerning his success had given place to pitying glances of toleration; for could a man work for years as George had done—never finding a speck of gold, still persisting in the labor—without being wrong in his mind? People began to fear the worst. They shook their heads and said, "Poor George!"

It must not be thought that McCarden was daunt. His mind was as clear and unshaken as ever, and it continued to be so till the day of his death. He believed where others doubted. That was all.

Six years of futile burrowing had passed. It was Sunday morning. The family had just finished their breakfast of ham and eggs. The brothers had lighted their pipes and gone out under a locust tree.

"George," said Peter, as they sat down on the ground, "are you going to move up to Yreka with us this week?"

"Why, I'll go up with you, but I can't stay," responded George.

"That is exactly what I'd like to have you do."

"Couldn't leave the tunnel, Pete."

The back channel had been the cause of many disputes between the brothers; but it had not been mentioned by either for a long time. Peter McCarden had kept a miners' boarding house for years, being no miner himself. He had just received some office requiring his residence at the county seat—whether by appointment or election I cannot say.

His utmost persuasion could not induce George to leave the mine. For several years the miner visited his brother occasionally, and frequently at such times carried flour or bacon on his back on his return to his tunnel, a distance of thirty miles or thereabout; but Peter sent over most of his provisions.

About five years passed in this way. At last, out of employment and nearly at the point of starvation himself, Peter refused to help his brother at the tunnel any longer. He might stay with him, he said, as long as he had a roof over his head and a bite to eat.

Eleven years after the fatal tunnel was begun, Peter moved his family to Linkville, Oregon. George accompanied him and stayed all winter; however, as soon as spring came, he stole away and returned to Shackleford.

He appeared there one evening, at a farmhouse a few miles from his old cabin, tired, hungry, ragged. Tom Jones, the farmer, took him in and learned his situation. Early next morning, Jones left the house, saying to his wife, "Poor George mustn't starve."

He saw several of his neighbors, went to Oro Fino, and returning, took George to his cabin and gave him a good stock of food.

This generous farmer succeeded so well in making others also feel that "Poor George mustn't starve," that he was supported at his labor for five more weary years.

Some time after the kind-hearted farmers had reinstated the old miner, the news was brought to one of them that little Mary McCarden was dead, and that Peter and his wife implored George to come and live with them again. Upon this mission, several farmers and an old miner or two went up to see McCarden.

They were obliged to leave their horses some distance below, and go up across the Shackleford, to the cabin, afoot. It was a bright Sunday morning in autumn, and they took with them a letter to George from his brother. They found the old man sitting in the sunlight, smoking.

After shaking hands and arranging themselves about, Jones, the spokesman, began, "Well, George, we've come to take you home."

The old miner, taking his pipe in his hand, gazed in affright from one to the other of the party.

"Oh, not without your consent, of course," explained Jones.

"Thank you! Thank you!" said McCarden, smiling faintly and replacing his pipe.

"We have brought you a letter from Pete," added Jones, handing it to him.

The lonely old man put on his spectacles, eyed the letter over, slowly broke it open, and began to read. The letter had lain in the office several days, and every one of the party knew the important news that it contained.

A painful stillness reigned among them, all eyes being upon old McCarden as he slowly followed the lines. He was oblivious of all but that which the letter contained. He turned to the inside. His hand began to shake. His eyes were widely strained. He could scarcely read. The letter was not long, and he was near the end; but it dropped upon the ground, and the old man's face was buried in his hands.

After a pause of some moments, Jones and the others rose and stood around him. They told him that his brother wanted him to come home, and that they had come to take him.

He started and looked up. The same soared

look came over his face that was there when he was told that before.

"To take me where?" he asked.

"To take you nowhere," replied Jones, "unless you want to go. But it will be so much better for you to go to your brother."

McCarden straightened himself up, looked each man in the face, and remarked:

"Gentlemen, you have all been kind to me—very kind. But you don't know what you ask me to do. Brother Peter has all he can do to live, without me. I am a miner; I cannot live out of the ground. I suppose this very tunnel of mine will be my grave. It is pleasanter to think of dying here alone, than of seeing Peter's family again. How can I ever go back there, boys? You know that little Mary was my heart's core. There's nothing left on earth for me."

At this point, his utterance entirely failed him. As he held both hands up and cast an appealing look heavenward, his hearers all broke completely down. Jones went off to the rear of the cabin, where he was soon joined by his coadjutors. A brief council resulted in the determination to keep George in his cabin as long as he wanted to stay. One farmer said he would keep him a year at his own expense. Another declared he would rather keep him two years than to have his feelings hurt so again.

So it came about that old George McCarden was the special charge of the farmers of Shackleford Creek, and the charge was well kept. He went in and out among them for nearly five years, and not a mother but spoke to him kindly, nor a child but greeted him familiarly. When the cold, raw weather of fall and winter came on, some one was sure to send him some dainty, or induce him to come out of the cabin for a few weeks.

Rheumatism had troubled him for years. It grew worse. He spent nearly the whole of the fourth winter among his farmer friends.

With the warm weather, he returned to his cabin; but his digging went on much more slowly than usual. He was old and weak, yet his faith in that back channel was not abated one jot.

Instead of clearing the dirt from the tunnel as before, he now left it midway. This slowly filled up the inner part of it. Obligated to crawl back and forth through this choked and narrow passage, animal-like, he still burrowed away. It became a question of a short time when he should dig no more. Strength and space failing at the same time, would he not then give up? Was he not conscious that both were to end at the same time?

Coming down from the cabin one day to get a little provision, he returned after dark with a lantern. Friends offered to go up with him. In his stubborn old way he refused help, with evident marks of resentment. On he plodded, cane in one hand, lantern in the other, and a few pounds of food upon his back.

He proceeded without more difficulty than was due to age, rheumatism and the ascent of the hill, until he came to the narrow plank across the creek. It seemed much narrower than usual, much harder to cross. The snow was melting on the mountains, and the water ran nearly to the plank. He started out upon it. "Pshaw!" he thought, "I have crossed here hundreds of times. But what ails my head?"

He edged slowly along till he was half-way over. Did he get across? Yes; but not on the plank. He fell into the water, and became so chilled that it was with great difficulty that he crawled to the cabin.

Two or three days later, some of his friends found him in his bunk, in a very low, feverish condition. He was removed to the county hospital, but died before his brother and wife, who were off camping, could get to him.

Sixteen tedious years he had toiled in his tunnel, without finding a speck of gold. The hole he made, no man would enter except from curiosity. Did he succeed?

"Succeed!" you say. "Why, he was after gold, and never found the color of it, poor, crazy fellow!"

I begin to reply that every one who seeks after gold merely is crazy, or worse; that there are things to be sought after that are infinitely better than gold. But that is not preaching the reader cares to accept. Let me go on, and say that poor George McCarden was not altogether a failure. He gave us a touching picture of rustic charity in the Shackleford. And he is to me a type and a lesson—a type of humanity's ages of burrowing and contriving to get back to simple truth and purity through false creeds and false practices; a lesson of dogged patience, that we might use in working back to our better selves through the landslide of our lower nature that has overwhelmed it. If we longed as much for right thinking, right living, pure hope, honor, as George McCarden did for the fortune he believed lay behind that slide. It is not valueless to have seen demonstrated the possibility of such fidelity and undiminished persistence in human nature, sublime in bent to its best end.—S. C. Garrison in *Overland Monthly*.

"GRACIOUS, Miss Bickton," exclaimed young Spriggins, who is a lingerer. "I hope you won't cough again in that way. You made me start." "Perhaps," she murmured, "I may be convinced that even coughs were not made in vain!"

It is the blackest ingratitude to accept the best of any one's endeavors to please you and repay it with indifference.

### Libraries in County Towns.

On this interesting subject Hugh Baker Sec'y Oakdale Alliance writes the *Oakdale Graphic* a good article. It is too lengthy for our space and we quote the closing paragraphs, viz:

I think any one can see the practical working of the proposed plan. The public school library thrown open to all furnishes the foundation. It is an idea in which all citizens are equally interested without regard to special motives, which have usually in small towns acted as a hindrance. It establishes this, one of the best of public institutions, upon the ground that it is a natural right. Nevertheless its benefits would soon be appreciated. Talk as we like about books being cheap, there are but a limited number of homes in which libraries of sufficient variety and extent are found to meet the wants of parents and children; however cheap books may be, they cannot be purchased by those who do not have even the small amount necessary for their purchase to spare. The State has undertaken to

### Educate the Prospective Citizen

depending upon the knowledge and training the child gains for its loyalty and usefulness in its mature years, but has forgotten the man and woman who exert such an important influence upon its character and destiny, at least so far as State educational endeavors are concerned. When the child is grown he becomes the property of society in its heterogeneous make up to educate and influence. To what extent the State should and is able to interfere in this matter is a grave question. But one thing is certain the State should have its hand upon every citizen and should aid in providing educational influences for those who from their circumstances cannot or will not provide them for themselves.

In America we glory in our public institutions. The free library is a characteristic, but it is confined to the cities, which furnish it by municipal government usually, while people living in the country are deprived of this great blessing. Now I maintain that if the State can aid in spreading the free library idea it is its duty to do so.

Should the plan meet with acceptance, the citizen in town or country can provide just such literature for himself and family and others as he may deem necessary or important. If our wealthy citizens desire, this would furnish the best opportunity for public benefaction.

The reading-room should be a feature in every such library. We get in the magazines the highest class of literary productions; in the agricultural, political and secular papers we get information which should be in the possession of all. The farmer depends upon the scientific methods for his success, but he must gain that knowledge through the various periodicals published in his interest.

### Money Required.

Perhaps it would be of interest to know how much money it would be necessary to raise. The expense of opening and maintaining a library and reading-room is a matter governed largely by circumstances. While this might prove the greatest expense, it need not be a very great hindrance, for it is expected that citizens in general would contribute. Nor would such expense be confined to those living in town, for the union of town and country districts would be a distinguishing feature. If we take as an example Oakdale and vicinity, the districts united would cover a large territory and represent a class of people who would be glad of an opportunity to contribute the funds necessary for all expenses; but the running expenses need not be large. Suppose Oakdale should desire such a library. There might be built Oakdale, Booth, Hor's Ranch, Langworth and Robinson school districts. To these were appropriated for the library fund the sum of \$108.65 at the last apportionment. Say that the law required an equal amount to be raised by the citizens. Certainly these expenses would not be too large to deprive any community from the benefits of the law, while \$200 would go a long way toward providing a number and variety of books which would satisfy any reasonable demands for yearly expenditures. Even if nothing further were provided, this would be appreciated by any farming community; but above this there is the important item of placing Government reports in the hands of the public. These are very valuable and the Government would gladly supply them to its citizens; but as it is now they reach the hands of but a limited number. These reports are so numerous that they would amount to quite a library in themselves. They should include the printed speeches made in Congress on proposed laws.

WARMTH IN AMERICAN HOUSES.—Mrs. Rlder Haggard has been heard to complain that American women kept their houses too warm. This complaint cannot be made of English women. If there is an uncomfortable spot in all Christendom it is the average English home in cold weather. The average English house is ill-constructed; it is damp and draughty; it is provided with very few comforts. This may account for that domestic infelicity which jeopardizes the family in England. English husbands are notoriously bad husbands; they might be much better if their homes were comfortable. When a man shivers he pines for warmth, and he will get it. If he doesn't find it at home he will find it at the groggeries or at other in-



famous resorts. The home instinct has been pretty nearly all chilled out of the Englishman. He is a famous wanderer; but mark you, he never wanders northward! He heads southward; he is cold; he has been frozen all his life. As soon as he can get away from his damp, draughty and cheerless home he makes his way where he is assured of the warmth which his shivering body demands. The American women know, fortunately, that the surest way to keep their husbands at home and to attach their children to home is to make the home comfortable, bright, cheerful. It is the pursuance of these tactics that has insured to American women the most loyal husbands and children, who regard no human sentiment more tenderly sacred than that which attaches to home, with its myriad of sweet, persuasive, holy influences. *Chicago News.*

### Dare to Do.

What he dares to dream of, dare to do.

There is philosophy teaching by example. "Dare to do." That is the ultimatum in all theoretical calculation involving the possibility of a valuable consideration. The *National View* says that it is something practical, expedient and conclusive. It is sniting the action to the word, and thereby results follow which can be realized in no other way.

"Dare to do." Act up to the requirements of the situation. Do not stop to whistle away the time in vain and aimless speculation, but shoulder the responsibility at once and march up to the line of action with fixed determination to secure the prize, whatever it may be. Away with that sniveling, whiffling sort of policy which hodes no good when "bread and butter are at stake." Remember that any good, honest business in any contingency, is noble and praiseworthy far nobler than to sit down and whine and snarl at fate. While fortune may favor, it does not control events or direct the men of mind, who break down obstacles and plant the flag of victory.

The consciousness of strength lies in the trial of the arm that lays low the obstructions that crowd the path over which we travel. Once need, we know its power. We measure its full strength and confidently march on to repeat its strokes. We become satisfied that there is something to achieve. We believe in its possibility and put our hand to the wheel, well assured of its accomplishment.

Genius is a very good thing to work on, but it must be directed by intelligence and good sense in order to advance and master the situation. Alone and unhelped it would waste its sweetness on the desert air, but harnessed to the latter it may give hope to destiny and become the savior of the world.

### Chaff.

A FLIRT is the girl who takes desperate chances of becoming an old maid.

GIVE work rather than alms to the poor. The former drives out indolence, the latter industry.

TEACHER:—Don't you know it's wrong to fight? Small Boy:—Yes'm, when I'm getting licked.

ECONOMY is wealth, but it is a kind of wealth that the rich man finds it hard to transfer to his son.

TIMELY ADVICE—He:—I feel completely prostrated. I wish I were dead. She:—Well, why don't you let me send for a doctor!

If people could only do things themselves as well as they can tell other people how they should be done how blissful everything would be.

TEACHER:—Tommy, can you give me a sentence in which but is a conjunction? Tommy:—See the goat butt the boy. But is a conjunction and connects the boy with the goat.—*Brooklyn Eagle.*

THE Arabs have no "Hello!" in their language. The nearest they come to it is to throw a stone and hit a man in the back, and then ask him as he turns around—"Does it please Heaven to give you good health this morning?"

MOTHER:—When the new minister calls, Tommy, you mustn't make any remarks about his clothes. Tommy (after the minister is seated):—Ma told me not to say anything about your clothes. I don't see anything the matter with them.

"WHERE have you been, Rex?" remarked Miss Flossie to her mastiff; and as the noble animal winked cheerfully and laid a portion of Charles Henry's Sunday trousers at her feet she continued "You had doggie, I'm afraid you've been off on another tear!"

JONES had a bad habit of snoring on the slightest provocation. "Where is your papa?" asked a visitor one day of Jones' youthful son and heir. "He's in his study asleep." "How do you know that he's asleep, my little man?" "I heard him; my papa sleeps out loud."

"WHY am I like a pin?" asked Mr. Jones, triumphantly, of his wife. He expected she was going to say, "Because you are so sharp," and he was simply paralyzed when she responded, "Because if you should get lost I wouldn't be worth while to spend time looking for you."

EDITOR (to Miss Oldgirl, aged about 40)—Your work shows promise, madam; but do you know that good literary work is seldom done by a woman until she is 30 or 35? Several years hence you will be able to write available articles. Miss Oldgirl (as she leaves)—That was the most delightful man I ever met.

## YOUNG FOLKS' COLUMN.

### The Parson's Daughter and Her Ride After the Colt Gypsy.

[Written for the RURAL PRESS by KATHERINA BRYANT NOLAN.]

Ethel Henderson was not the minister's "truly" daughter, as the children expressed it, but they were truly fond of her, and her advent in Milbury was hailed with joy by the rollicking sons and daughters of the Granite State, for they quickly recognized a kindred spirit.

Now Parson Henderson was the soul of dignity. He recognized the sacredness of his calling and was greatly given to the expounding of scripture and the ansterely good deacons never failed to congratulate each other on their choice of Parson Henderson whenever they met, somewhat as the children rejoiced in Ethel as a good play-fellow.

Sunday after Sunday the people, big and little, staid and gay, assembled in the old-fashioned, squarely-huilt, meeting-house and listened to doctrines wise and doctrines grave with becoming patience. It was a hard day for Ethel. She sat at the head of the parson's pew, for Mrs. Henderson was dead, and her small figure was thus directly in line with the deacon's eyes, and if she moved or "witched" some one was sure to speak about it, which always made her very angry, especially at the word "witched."

However the good dames of the parish were not to be restrained especially when they found the deacons did not understand the gravity of the situation. They "held" that the minister's daughter should in all good faith, be a paragon of virtue and an example for the guidance of youth who lacked her privileges, and at times they disturbed the serenity of Ethel's father by proposing that she be reminded of her responsibilities. These estimable plotters had many methods to propose and no two agreed, so it came to pass that Parson Henderson never knew exactly what to do about Ethel, and consequently did nothing at all unless it was to expound the Gospel with greater vehemence. He had a lively affection for the little one whom his wife had adopted when she was a mere baby done up in flannel, and perhaps he thought there were not many little girls who were even as good as she was.

When Ethel was twelve years old, the young people rejoiced more than ever for that summer was a brilliant one and rich with gayety. Harry Goodnow, the minister's nephew, refreshed himself after a tedious illness with the life-giving breath of the mountains of Milbury, and all sorts of expeditions were planned and carried out to entertain this visitor in a suitable style. Hardly a day passed but a troop of youngsters appeared with tin pails and red cheeks and laughing eyes whose destination was a mystery. The ringleaders knew where they were going, and the rest followed obediently over hill and hollow, across green fields and through rustling woods. The pails held luncheon and sometimes returned full of luscious berries and sometimes they came back quite empty, but there was one frolic that Ethel and Harry had to themselves at home, that neither of them ever forgot or told.

One cloudy and sultry Saturday afternoon, the parson sat in his study among his books and papers writing his Sunday sermon. His hair stood on end, for he frequently ran his fingers through it in a vain effort to recall some vague idea to the tip of his pen for the pleasure and enlightenment of the good deacons, and one wisp of hair stood up very prominently, as if it held the idea and was challenging the minister to a personal encounter. Ethel and Harry were on their way to the pasture behind the barn. Gypsy, the two-year-old colt, was impatiently calling for apples and put her nose over the bars in a beseeching way.

"Oh, Harry, just look at pa's hair," said Ethel softly as they passed the study window. She sat down then and began to laugh under her breath as if afraid of disturbing her father's meditation.

"I don't see anything to laugh at," he answered stolidly as he stalked on toward Gypsy. This made Ethel laugh harder than ever, and she ran after him saying as she flew by:

"Boys are stupid creatures."

"Girls are silly things," he retorted.

Ethel assumed a dignified manner at this speech and gave all her attention to Gypsy; but she was concocting a plan to prove that all girls were not silly.

"It is high time that this colt was harnessed and broken in," she said at length. "You let down the harness and go shut the big barn doors and I will lead Gypsy in."

"Uncle will be very angry if you fool with the colt. He thinks a lot of her and he won't want her spoiled with fooling," answered Harry.

"Nonsense," said Ethel, "I'm not going to hurt her. I know a thing or two about colts. Don't you be afraid."

Harry subsided at this. He lived in the city, and his knowledge of colts was really limited to the frolicsome Gypsy, and so he took down the bars. Ethel followed after, clinging to the colt's short mane with desperation until Harry had the doors shut fast, and then she began to prepare her for her initiation into the duties of a well-regulated horse that obeys the lightest

touch of the rein and hears the word of his master quickly.

"She always comes to me when I call her, why won't she go when I tell her to?" asked Ethel.

Harry could not answer this conundrum, so he put his hands into his pockets and said nothing. Ethel's harness was an ingenious arrangement of numerous hits of leather, long and short pieces of rope and Gypsy seemed to enjoy it, and acted just as if she knew all about that sort of fun herself and wanted Ethel to understand it.

She rolled her eyes until the whites shone as she looked backward, first on one side of herself and then on the other. Every other minute the dancing Ethel received a sly nip and Gypsy lifted her feet daintily from time to time.

"See there! Oh, she'll go!" said Ethel, "I tell you, but this Gypsy is no common colt!"

At last everything was ready and Ethel took her seat on the rough sled she had fastened behind, holding the reins of rope jauntily, as became a good horsewoman, and Harry opened the big barn doors, and away went Gypsy.

The parson heard a clatter of hoofs as the harness creaked on their hinges, and he came out of the house on to the back steps and looked over the top of his glasses in a bewildered way. The colt was flying down the village street, and the old sled danced and swayed at her heels. Faster and faster she flew with Harry in hot pursuit. The parson pushed up his specs and gazed down the road in amazement. Suddenly he seemed to realize what had occurred; and he cried:

"The colt! The colt! She will be ruined! I wouldn't have taken a hundred dollars for that colt." Ethel knew that one hundred dollars meant a great deal to Parson Henderson, and she ducked her head a little so as to look between the rails of the fence, in the hope that Harry was catching up with the runaway.

She sat among the chips of the woodyard, where Gypsy had landed her, just as if she had been shot there. Little chips and big chips clung to her stockings and stuck in her hair; but she had no mind for chips.

"It's that boy," declared her father with increasing wrath. "I might have known as much. The colt will be ruined—utterly ruined!"

"But, papa—"

"I'll send that boy straight home."

"But, papa—"

"One hundred dollars? No; I wouldn't have taken two hundred," declared the parson, the value of the colt increasing in his mental eye as her heels disappeared in the distance down the crooked village street.

"But, papa—" Ethel choked down a sob that arose in her throat as her father turned and went into the house.

This was dreadful. Perhaps Gypsy was ruined, and it was her fault, although she could not make her father listen to her. She poked the chips from off her stockings and ran after Harry. There were numerous inquiries from the neighbors in the doorways, the children standing on the fences and riding on the gates, but she only shook her head and ran the faster. She waited at the cross-road quite a long time, until Harry came back with the wild Gypsy, who seemed not one whit the worse for her escapade, and then she fell silently into the calvacade, which gathered numbers as it advanced, and the minister's colt retired like a hero from the wars.

The parson met them, looked Gypsy over carefully, and then turned her out to pasture without one word of comment.

The children scampered back to their homes without understanding who had harnessed Gypsy, and Ethel ate her supper silently, which was an unusual performance.

After tea, she sat down on the stoop and looked at the mountains until the crimson clouds above them lost all their glory, and the stars began to grow brighter and brighter.

"I guess girls are foolish sometimes," she whispered with a sigh, as she toiled upstairs to her little room under the eaves. Before she went to sleep, she laughed to herself at the recollection of Gypsy's heels tearing down the street. When she awoke, the sun was shining, so she dressed herself hastily and ran down to the study. Her father sat at his desk, and she said softly:

"Papa, I want to speak to you." He opened his arms and she ran to him and said:

"I did it, papa. It was not Harry. He told me not to. I am sorry, papa."

Parson Henderson held his daughter off at arm's length, and looked at her over his glasses quite severely.

"You harnessed the colt? How came you to think of doing such a thing as that, Ethel?"

"I thought she ought to be broken, papa. She comes when I call her, and I thought she'd go when I told her to."

Parson Henderson took off his glasses and wiped them carefully. When he began to rub, he began to smile, and as he put them on and took up his book again, he shook with laughter.

"You were quite right, Ethel. She certainly went at a very good gait."

Ethel ran out of the room so as not to be laughed at, but her father considered the joke so good a one, that he often made it allusions to it, and in fact he has not forgotten it yet.

Ethel became a model young lady, a good wife and mother, and even to this day the deacons wives take great pride in her and point

her out to the rising generation as a pattern of excellence. They have forgotten that she ever "witched" and Ethel thanks her lucky stars and Harry Goodnow and Parson Henderson that they never found out about her ride after Gypsy the colt.

## DOMESTIC ECONOMY

### Cake Making.

"Cake makers are born, not educated," was one of grandmother's pet sayings.

And there seems to be some truth in it, judging from the small number of first-class cake makers we find among intelligent women.

To make cake successfully something more than a mere rule is required. Rules mean that all ingredients shall be in the same condition and of uniform quantity, else there is no absolute certainty of uniform results. This is practically impossible. Flour and sugar will be more or less damp, and fruit varies in a thousand ways. "Eggs are eggs," it is said, but there is such a difference in their size that one might dispute at least one sense of the statement. The successful cake baker must have an instinct for conditions, must know by the feel of the batter when it is just right. Until this branch of education is fully mastered, and only practice and close observation will assure it, the best rules must be followed, and the varying qualities and conditions of the ingredients must be carefully studied.

To secure success, only the best materials must be used. Better go without cake than make it with a strong or rank-flavored butter or eggs which are unfit for table use. Either will detract from the flavor of the cake, and although heat is a great purifier, it does not always remove the objectionable taste of inferior materials. This is a point on which inexperienced cooks go wrong. So-called cooking butter is unfit for a fastidious taste.

If the yolks of the eggs are used, they should be beaten to a cream with the butter and the sugar. The whites of the eggs, the flour and the milk may be put in at the same time, and the whole must then be thoroughly mixed. Add baking powder just before the batter is ready for the tins, and heat vigorously for half a minute; then put in tins lined with buttered paper, and bake in a moderately quick oven.—*N. Y. Ledger.*

VANILLA ICE CREAM.—One quart milk, one cup sugar, two tablespoons flour one saltspoon salt, three eggs (whites), one pint cream, two tablespoons vanilla. Boil the milk. Mix the sugar, flour and salt, add the boiling milk, and cook 20 minutes in a double boiler. Stir as it thickens and until it is smooth. Beat the whites to a foam, but not stiff, and stir the hot mixture into them. When cool, add the cream, using more if you have it, and sugar to taste. Strain, and add the flavoring.

BREAD OMELET.—Line a buttered scallop dish with thin slices of cold lamb or veal. Soak one cup of soft bread crumbs in one cup of hot milk. Add one tablespoon of butter, one teaspoon of chopped parsley, and one teaspoon of fine chopped onion, a little salt and pepper and two eggs well beaten. Pour this over the meat and bake about 15 minutes or until brown. Serve at once in the dish in which it is baked.

BOILED ONIONS.—Peel them, and boil them in equal parts of milk and water. When they are tender, take them up, drain them, and add salt, pepper and butter to the taste. Do not put salt in the water they are boiled in, as that will curdle the milk, and cause a scum to settle on the onions.

CHEESE WAFERS.—Rub a tablespoonful of butter to a cream, and stir in two tablespoonfuls of grated English cheese. Spread this mixture on thin water crackers or plain wafers, or, if you cannot get thin crackers, split the thicker ones. Keep them in a hot oven till they are a delicate brown.

HERMIT CAKES.—One-half cup butter, 1½ cups sugar, one cup currants, three eggs, one teaspoon of all kinds of spices, one-half teaspoon soda dissolved in a tablespoon of water, flour enough to roll. Roll thin and out with a cookie cutter. Keep in a well covered jar.

STUFFED EGGS.—Halve ten hard-boiled eggs; taking out the yolks and season, adding minced meat of any kind preferred; fill the eggs, join and put in a dish. Use bread crumbs and milk with the remainder of the mixture; pour over all and bake.

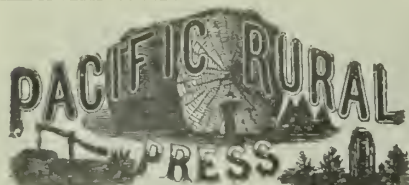
APPLE CUSTARD PIE.—Two raw apples, one cup sugar, one saltspoon cinnamon, two eggs, one cup sweet milk. Choose ripe, mild apples, sorape to a pulp with a silver knife. Mix with the sugar and spices, add the beaten egg and milk. Bake in one crust.

POTATO YEAST.—Boil some potatoes, mash them, and to six potatoes add one gill of flour. Stir in as much water as will make the whole into a thick batter; add some yeast and a wineglassful of salt. When it is light, put in your jar and cover it.

PRESERVED FRESH FIGS.—Select the fruit when fully ripe, though not soft, pick them carefully that they may not be broken. Pour boiling water over them, and let them simmer for five minutes. Preserve them as other fruits.

SUGAR COOKIES.—Two and one-half cupfuls of sugar, one cupful of butter, one onful of sour milk, one teaspoonful of soda. Flavor with nutmeg. Mix soft.





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[NEW THIS ISSUE.]

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Horse Sale—Kilip & Co.  
Flea and Lice Killer—Petaluma Incubator Co.  
Removal Notice—Dr. E. A. Buzard.  
Codlin Moth Trap—G. W. Thissell, Winters.  
See Advertising Columns.

## The Week.

May rains are unusually heavy this year all over the State. At the close of last week, the southern part of the State was drenched. Nevada and the Sierra highlands enjoyed a sandwich of snow and rain. This week, most of the upper half of the State was given showers, which were in some localities almost as heavy as a short winter downpour. Vast quantities of hay have been caught, and the damage will be determined by the following hours. As we write on Wednesday evening the skies have cleared, though the signal office does not consider the danger over. Though this late rain will freshen gardens, and perhaps keep some late crops, its damage to hay and possibly to some small fruits as well as the labor imposed in reworking orchard and vineyard make it an unwelcome visitation on the whole.

PARIS GREEN AND SOAP SOLUTION.—It may sometimes be desirable to use soap suds to hold the Paris green in suspension rather better than clear water will, but it must be borne in mind that soap renders Paris green more dangerous to the foliage of the tree or vine, and if it is used at all it should be in small amounts and with due caution.

## The Grasshoppers.

These pests are upon their periodical raid upon portions of the lower country of the Sierra Nevada foothills. Such visitations are fortunately not frequent but occasional, and somewhat more rarely the pests invade the valleys and plains below. Unfavorable seasons and the spread of parasites reduce the hoppers after they have a flush season, and the country has a long respite from them until a winter favorable for the full hatching of their earth-deposited eggs comes, and then the devouring multitude again invades the country. Grasshoppers are always present in some districts in fair numbers, and in nearly all regions in small numbers, but it is only at intervals that they do damage enough to arouse the natives to fight them. Just now, the supply seems unnecessarily large and distributed over quite an extent of country. Standing grain is being out for hay, to save it from the hoppers, and as the fields are thus cleared, the pests will have gained their wings, and will be able to fly to the vineyards and orchards of the adjacent regions of the foothills or to descend like a scourge upon the valley below.

Many methods of fighting the grasshopper are in vogue. Mr. E. W. Maslin, Secretary of the State Board of Trade, has issued a timely circular in which the following methods are mentioned:

At the present time, when the hopper is on the plains and the grass just shading into yellow and easily fired, the pest is easily subdued, though at some cost, when the neighbors will co-operate in burning over the fields to protect the vineyards and orchards. The wings have not yet formed, and as they only skip and do not fly they are comparatively easily reached. One plan proposed for destroying the hoppers in open fields has already been stated by a southern paper, to-wit: Take the axes and wheels of a hay rake. Attach to the axle a piece of sheet-iron bent near the ground so as to make a table, the edge being near the ground. Upon this table put rags or rubbish saturated with coal oil. Set fire to the oil, and with a horse push the machine along ahead of the animal. In the vineyard this plan would be difficult to apply, but in the orchard it is practicable. After the wings have formed the work is less effective.

A close fence will prevent the progress of the insect until the wings are formed. One person succeeded in averting disaster several years ago when his vineyard was invaded, by having half a dozen men begin at the south fence and walking to the north, with the wind, and whipping the hopper out of the inclosure with bushes. As there was no orchard or vineyard within several miles, no damage was done to any other person's property.

There are many such ways by which the grasshoppers may be partially reduced, but they have all been superseded to a great degree at least by the poisoning method, which proved of vast importance during the great grasshopper year of 1885. The outline of this method was recalled by Mr. Mackie, in his letter in last week's *RURAL*; but in view of the prevalence of the pest and the possibility of its much wider extension, we shall give in full a memorandum, prepared by Dr. Coquillette, while he was studying the phenomena of 1885 as Riley's agent. It should be preserved so that its instructions will be available if the grasshopper should appear at valley points not yet invaded:

Among the numerous remedies for the destruction of grasshoppers which I have tried, or seen tried, only one gives promise of accomplishing anything like satisfactory results. It consists of a mash composed of bran, arsenic, sugar and water, the proportions being one part of sugar, 1½ parts of arsenic and four parts of bran, to which is added a sufficient quantity of water to make a wet mash. A common washtubful of this mash is sufficient for about five acres of grapevines. Fill the washtub about three-fourths full of bran, add six pounds of arsenic, and mix it thoroughly with the bran; put about four pounds of coarse brown sugar in a pail, fill the pail with water and stir until the greater part of the sugar is dissolved. Then pour this sugar-water into the bran and arsenic, and again fill the pail with water, and proceed as before until all of the sugar in the pail has been dissolved and added to the bran. Now stir the latter thoroughly, and add as much water as is necessary to thoroughly saturate the mixture, and it is ready for use.

Throw about a tablespoonful of this mixture upon the ground beneath each vine infested with grasshoppers; and in a short time the latter will leave the vine and collect upon the bran and soon commence feeding upon it. Those which are upon the ground six or eight feet from the bran will soon find their way to it, apparently guided by the sense of smell, as those to the leeward of the bran have been ob-

served to come to it from a greater distance than those which were upon the side of the bran from which the wind was blowing. After eating as much of the bran as they desire, the grasshoppers usually crawl off, and many hide themselves beneath weeds, clods of earth, etc., and in a few hours will be found to be dead.

The mixture costs from 35 to 40 cents per acre of vineyard, including labor of mixing and applying it. In orchards the cost will be considerably less than this. One man can apply it to eight or ten acres of vineyard in a day.

I have seen this remedy tried on an extensive scale at the vineyard and orchard of Messrs. Kohler, West & Minturn, at Minturn station, Fresno county. In that part of the vineyard which was the most thickly infested by grasshoppers, from 30 to 50 dead grasshoppers were found beneath almost every vine, while beneath the adjacent weeds were hundreds of others, the greater part dead. It was also very effectual when placed beneath small fruit trees, the grasshoppers leaving the trees to feed upon this mixture.

The addition of sugar to this mixture is merely to cause the arsenic to adhere to the particles of bran, and not for the purpose of increasing its attractiveness, since it was found that the grasshoppers were not attracted to pure sugar. Middlings or shorts have been used in the place of bran, but are not so desirable, since in drying they assume a solid mass, which the grasshoppers cannot eat, whereas bran in drying never assumes a solid form.

There is some little difference of opinion as to the proportion of arsenic which is best; also as to the advisability of using a little middlings to make the mixture more compact. One prescription is as follows:

Forty pounds of bran, 15 pounds of middlings, 2 gallons cheap syrup, 20 pounds arsenic, mixed soft with water.

Others reduce the arsenic to 15 pounds and others to 10 pounds, with the same weights of other ingredients.

To enable one to gather up the remnants of the poison after its work is done, the practice is adopted of placing the poison on shingles or other thin pieces of wood which can be easily seen and emptied. All such surplus poison should be deeply buried in the ground.

Naturally there was much apprehension of evil from such free use of arsenic when the remedy was first put into practice. Very careful analyses were made at the university laboratory, of the washings of vine leaves, grapes, and of the soil beneath the vines, and no dangerous amounts of arsenic were found, nor did there appear any danger of contaminating wells or other sources of water. Of course domestic animals and fowls must be faithfully looked to while the poison is exposed, and it is chiefly for their protection that the use of shingles, in putting out the poison, instead of throwing it on the ground, is advocated.

We hope there may not many grasshoppers appear, but if they do, this is the best way to meet them in orchard or vineyard.

## Buried Trees in Gravel Mines.

In the gravel deposits of the ancient riverbeds of the Forest Hill Divide in this State, trunks of trees similar in appearance to our present cedars and oaks are found imbedded in the upper layers, either petrified or somewhat lignitized. Mr. Ross E. Browne, in a chapter of the Mineralogist's report on ancient riverbeds, calls attention to an interesting occurrence in the Weske channel. The cement filling the bed to a depth of 100 feet is a more uniformly fine-grained sediment than is commonly encountered. It incloses a number of oak and cedar trees, standing on the banks of the channel, with the roots intact in the gravelly soil and bedrock. One of these is a cedar nearly 100 feet in height and 4 feet in diameter at the base, and stands perfectly upright, and, considering its age, is in a surprising state of preservation.

Similar standing trees are also found in the Bowen mine, in the same channel. These trees are immediately on the shore line of the shallow deposit of gravel and show that for a few centuries at least before the depositing of the volcanic material was a small one.

These standing trees show also that the first flow of the auriferous cement was not torrential, though moving with a certain velocity. The existence of a current, and its direction, are plainly indicated by the structure of the deposit immediately surrounding the trunks of the trees. The deposit where these standing trees are found is entirely covered with an extensive and deep cap of lava.

## Farmers' Institutes.

The Farmers' Institute at Auburn, Placer county, under the auspices of the Auburn Horticultural Society, was duly held on May 22d and 23d. Five sessions were held, including the evening session of the first day, which was largely musical and social in its character. Several excellent essays were read, and the discussions were bright and interesting. We shall present, in other issues of the *PRESS*, many of the leading features of the meetings. The Institute was conducted by Mr. Wickson of the State University.

The vicinity of Auburn is enjoying its share of the incoming of bright, progressive people from all parts of the world, who are now doing so much to advance California industrially and socially. There, as elsewhere, the accession readily assimilates with the more progressive element of the older population, and infuses new spirit throughout the community. The result is that Auburn is progressing fast in spite of its large resources in over-conservative people. The Institute seemed to strike the sympathies and meet the needs of the people, and probably another series of meetings will be held before long.

As a rule the Institutes have not been preceded by a sufficient breadth of plan and preparation. This will be speedily overcome. The Fresno meeting at Malaga on July 2d will probably have its program out soon after June 1st, and an effort will be made to stir up and bring together a multitude.

An instance of a proper way to arrange an Institute and to insure adequate scope and detail of preparation may be seen in the way in which an Institute is being arranged for in Alameda county. Previous mention has been made in these columns, but an article on page 537 of this issue gives fuller information. If all communities or counties desiring to participate in this work will proceed thus carefully from an early beginning, the results will be a surprise and the benefit beyond anticipation.

## New Fruit Varieties.

Probably even our best varieties of fruits are susceptible of improvement. This would seem to be the teaching of experience, and certainly every honest effort in the direction of improvement is worthy of encouragement. Some manifestations held to be improvements are not permanent, others endure and become the basis for new lines of propagation and increased profit. If not permanent, they do little harm, usually, for wise planters do not invest heavily in new varieties until their value is pretty well established. Though planters often deplore their disappointment and loss in trying new varieties in the hope of securing something valuable, they generally continue their patronage of such things, so their wounds cannot be deep. If, however, the claimed improvement proves permanent and marked, the gain to the whole horticultural interest is great. For these reasons the *RURAL* is disposed to give early notice of varieties claimed to have exceptional value, and to regard the whole effort to seek improvement in this way as worthy of encouragement.

We are always pleased to have new seedlings for examination, with accounts of their origin. We also like to hear the facts about such new varieties, even when it is impossible to submit specimens.

MR. WANAMAKER ON THE PACIFIC COAST.—It is telegraphed from Washington that Postmaster-General Wanamaker is always anxious to talk about his San Francisco trip. In an interview he said: "I thought I knew something of growing countries before I set my face toward the setting sun, but I found, before I got to San Diego, that the West was doing more than I conceived. Before we got on the Union Pacific railroad to return, and after we had spun around Washington State, I was amazed. The West must have better mail facilities, faster mails, more of them and better postoffice facilities. How quickly they make a big city in the West, with fine buildings, large factories and beautiful streets, and all that pertains to a metropolis. There are no signs of hard times out there. Everything is progress, enterprise. What nerve the people show! What profit their real estate yields!" Mr. Wanamaker has been "booming" the West and Pacific Coast in this manner every day since his return.



# FLORIST AND GARDENER.

## California Annuals.

EDITORS PRESS:—It is to the many beautiful annuals that in springtime cover the hills and mesas and valleys that California owes her just fame as a land of flowers. With the first rains of autumn her dry, barren hills take on a shade of vivid green and California emerges from her summer lethargy to a state of vegetating activity. Early in October or November, according as the first rains may fall, and immediately after these, a little tuberous plant, *Saxifraga Parryi*, dots mesa and canyon side with its little umbels of white flowers, delicately veined with purple. This beautiful perennial, modest like the genial man in whose honor it is named, the late Dr. C. C. Parry, lies dormant from the earlier part of April until the earliest autumn rains, when it comes forth like an advance messenger of Flora's fair train of spring beauties.

Closely following the modest *Saxifraga* comes a steady stream of lovely annuals. Perhaps in no country do the early spring annuals so change the face of the earth from a desolate waste to a beautiful garden, as on the Pacific Coast, hills, mesas, mountains and valleys and the arid plains of the desert alike all quickly responding to the vivifying rain in our winter months.

Not only are these annuals each individually beautiful, but they have a way of arranging themselves in groups and masses naturally, that greatly increases the charm which they possess, for the stranger especially. Bleeding heart moniously together are beds of purple, white

caught and forms miniature lakes during the winter rains.

It flowers late in May, producing numerous whorl-like flower clusters, with flowers half an inch long. The rich purplish flowers are very effective when scattered out over the little depressions on the mesas, like a rich carpet of dark green and royal purple tastefully combined. It is one of the flowers which Dr. Parry unhesitatingly recommended for cultivation, but as yet no one I believe has attempted to introduce it. All the species of this genus are Californian; one, with much less showy flowers, being abundant on the, at times overflowed lands near San Quintin, Lower California.

Another mint like plant is *Acanthomintha ilicifolia*, equally abundant in places on our mesas or among the foothills, usually growing on adobe soil where it seems to thrive best. It grows from three inches or less to a foot in height. The rigid, coriaceous, coarsely-toothed leaves render this disagreeable to handle and ill adapted for the use of florists; it is, however, a desirable plant for cultivation, as yet, I believe, unknown in either American or European gardens, and well suited for beds or borders, where it can be massed together as it is found in its native fields, where its delicate white flowers tinged with a lovely shade of purple are displayed to advantage.

Many of our annuals are known wherever the art of cultivating flowers is studied, *Eschscholzia*, *Phacelia* and *Gilia* being among the familiar flowers of Eastern and European gardens that California has contributed to floriculture. Among others, *Collinsia bicolor* is one of the best known of these annuals of early introduction. It abounds through all the western portions of the State and southward to San Quintin, Lower California. It loves moist hill-sides,

to-day as any other similar resort in the State.

As soon as it was assured that the Southern Pacific Railroad was to be built through the Salinas valley it became apparent that this place was destined to a permanent and rapid growth. Before the advent of the railroad the little cluster of buildings here was surrounded by a vast stock range, and there was little enough promise for the immediate future in the eyes of many. But enterprising men were behind the place, and the result was that late in 1886 a town site was laid out and offered to the public at auction. Fortunately the right sort of men were enlisted at the start. From the day of the auction the future was assured. Substantial business buildings were at once erected, life and energy were seen on every hand, and from that day to this there has been no halt in the growth of this youthful city.

## Notes on San Luis Obispo County.

[A Brief Statement of Its Resources, by HON. J. V. WEBSTER.]

EDITORS PRESS:—Your favor of April 29th, requesting some notes from me relative to the present and prospective resources of San Luis Obispo county, is just received. In reply I will state that, while our people are anxious that the resources of this county shall be generally known, there is no disposition among us to create a boom.

Conscious that the possibilities of our county are great, and of certain development and appreciation when the missing link in the chain of railroad communication has been

and friable soil of our mountain slopes. The scale and the fungus, which are the greatest enemies to their growth, are not known here.

The pear and the peach grow to perfection. They appear not to suffer from any cause whatever, save neglect of proper culture. Finer flavored fruit cannot be imagined.

An astonishing feature of the pear growth is that the fruit ripens the latest in the State, the Bartlett maturing in October, when there appears to be none others of this kind in the State; which gives us a wide field for this product, and at handsome prices, averaging \$3 per box in San Francisco and \$6 in New York from the 1st to the 15th of October.

For peaches, pears and figs, in addition to their table use, there is a large future for canning and drying purposes, in consequence of their superiority. Prunes are a success, and their product is of the finest quality. While almost any other kind of fruit does fairly well, those especially named are, in my judgment, the coming and staying kinds, and on which the wealth of this region will largely depend in the near future. Garden truck and vegetables of every kind do very well, in which maturity occurs on or before the 1st of July; but after that month, some irrigation is required in most instances.

## The Climate

Cannot be excelled. The nights in winter are frequently sharp and frosty; in the spring, summer and autumn, just delightfully cool. The days in winter are usually bright and moderately warm, and in summer they are sometimes hot, with the thermometer at noon ranging all the way from 70 to 100 degrees; but, owing to the elevation, from 800 to 1200 feet above sea level, there is little oppressiveness in the heat.

I cannot imagine how the mornings and evenings even in Paradise can excel ours in the spring and summer months. They are bright and free from all insects.

In the late census enumeration, it was shown that we had for the preceding year the lowest death rate in the United States, being as 4 to 13 in the general average. Mr. Samuel Cliff, our enumerator, is in receipt of a letter from Chief Commissioner Porter to this effect.

Land values range from \$10 to \$60 per acre, according to soil and location. On the

## West of the Santa Lucia Range.

And bordering the Pacific ocean, we have from the city of San Luis Obispo to San Simeon bay, on the north, a country something over 40 miles in length, and from five to eight miles in width, valleyed and rolling hills extending from the high Santa Lucia range to the sea, chiefly devoted to dairying and stock raising.

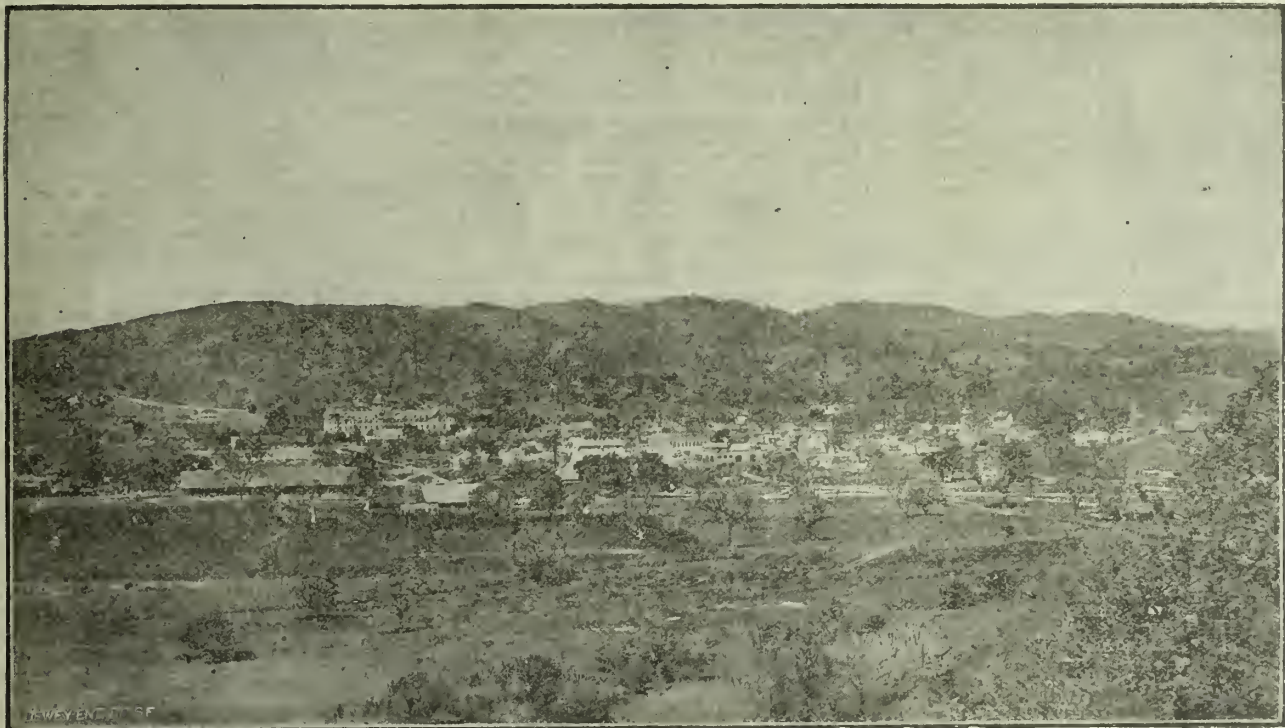
Fruit—principally apples, which are remarkably fine—is raised to a considerable extent. From San Luis Obispo, the county seat (containing 3000 inhabitants), and Butte Guardia, at the foot of the Santa Lucia range, to Arroyo Grande, extending southerly some 12 miles, are valleys and hills, from 7 to 10 miles wide from the sea to the summit. Here, farming, dairying and fruit-raising are intermingled. Land ranges from \$20 to \$100 per acre.

Arroyo Grande valley proper is from half to a mile and a half wide, and from five to six miles long, reaching out toward the ocean. This valley is a horticultural wonder within itself. An output of 150 tons of beets, 50 tons carrots, 30 tons onions per acre, with cabbages weighing as high as 80 pounds each, and squashes 200 pounds and over, are of such common occurrence as to excite but little comment where its productions are best known. Its apricots and apples are unsurpassed for excellence. Beans are the principal product; in fact, all kinds of horticultural products grow to such perfection, that the only complaint made of the valley is, that it is too small to furnish all the homes applied for, at from \$200 to \$400 per acre.

Mines of chrome, gold, and antimony are worked, while asphaltum and hills of bituminous rock abound on the western slopes of the mountains.

In fact, the manifest and possible products of the county, coupled with its diversified climates and soils, make it an empire in itself, not excelled in any other section of the world of like extent.

STEEL RAILS AS PIT PROPS—In consideration of the serious ironroads which are being made on the timber of this country by the use of wooden props in mines, it is satisfactory to note that a patent has been taken out for a method of making steel rails into pit props and supports for collieries, mines, tunnels, bridges, etc. The rails are cut at their ends and suitably framed together. In point of cost, it is claimed that this mode of propping compares favorably with other systems.



THE TOWN OF PASO ROBLES, SAN LUIS OBISPO CO., CAL.

and yellow, red and other shades of coloring, distinct yet inseparable, with different shades of green for a relief beneath and around them. Here a bed of orange-colored *Eschscholzia*, there a bed of blue-eyed *Phacelia*; beyond the graceful *Krynitzkia* with their multitude of snow-white flowers with vari-colored *Gilia*, delicate lemon-yellow *Oenothera*s and others too numerous to recall.

California's natural gardens, however, are not arranged on any small plan. Hundreds and thousands of acres are thus beautifully arranged in beds of flowers, which lend their color to the landscapes for miles and miles unbroken save by canyon or hill, beyond which the botanist may make the acquaintance of another set of equally lovely flowers.

In traversing the Mohave Desert from Cajon pass to the Mohave river, with every mile of travel one leaves behind a mass of tender annuals, passes through a belt of related species and enters yet another series of lovely tinted flowers. In the latter part of April or early May (if the season is favorable) a multitude of charming acquaintances may thus be quickly made. The low, large-flowered *Gilia Parryi*, will be met with, first of one tint, and a little further on of a different color. Just outside of the forest of tree yuccas (*Yucca brevifolia*) will be found the orange colored *Calochortus* (*O. Kennedyi*). Nearer the river the vegetation entirely changes, and only a few plants of indifferent appearance (excepting the large plukish white flowers (*Oenothera Californica*) will there reward the botanist for his pains.

Among the California annuals which have pleased me the most, is a low, sweet aromatic herb which grows on our mesas, and which, like many others of our rarest flowers, was first collected by Daniel Cleveland, of San Diego. This is the wild pennyroyal (*Pogogyne nudicaulis*), which I have as yet found growing only in the westlands near San Diego, or southward in Lower California, where it covers the surface of the low depressions where water is

and especially thrives in the shade of the live oak trees (*Quercus agrifolia*), or on the shady sides of our canyons, growing a foot or two in height.

The lower lip of the corolla is violet or rose-purple, and the upper, paler or nearly white, from which combination it receives its specific name. As in the case with nearly all flowers of a purplish color, this is occasionally wholly white, a pure white flowered form being in cultivation under the varietal name, *candida*. This is the most showy species of the genus known, the flower being three-fourths of an inch long and brilliant. Another equally beautiful but less showy species is *Collinsia*, *Cartaisifolia*, with rose-purple flowers, that is common throughout the central parts of the State, among the foothills, and in Southern California, extending eastward to the borders of the Colorado desert. O. R. ORCUTT.

San Diego.

## Paso Robles.

The little city of El Paso de Robles, on the bank of the Salinas river, was for many years noted for its springs alone. There was really no town, only a small collection of buildings clustering around the hotel at the springs. A few years ago, however, the place suddenly sprang into prominence, and to-day this is the second city in population and wealth in the county. How many years or centuries ago human beings learned the virtues of the mineral springs at this place there is no means of knowing. That those virtues were known and utilized far in the past there is no doubt. Since the American occupation of the State these waters have acquired a wide reputation, and it is a pretty safe assertion that the Paso Robles hot springs have as good and as wide a reputation

supplied between Santa Barbara and Santa Margarita, this people rest content with their surroundings. No part of the generous earth ever has been blessed with a richer mantle of green and gold than now hangs from the shoulders of our beloved county. The crop season has been perfect. The most fastidious and exacting cannot complain. No element is wanting to insure crop returns never before realized. The country

## East of the Santa Lucia Range

Constituting two-thirds of the county, with its numerous wooded valleys, plains and undulating hills, is at present divided about equally between the possessions of the cattle kings and those of the unassuming tillers of the rich, warm, brown, friable soil so common in this region. Wheat is the chief product of the county to this date and largely in ascendancy the present season. But while excelling in cereals—admitted by Mr. Montpelier of the Grangers' Bank, and other excellent judges, to be the finest raised in the State—nevertheless, wheat-growing and cattle-raising are destined, in large part, to give place to products more valuable. "The staff of life" may be raised on the soil covering the richest gold mine, but he who would persist in raising bushels of wheat where pounds of gold might be extracted with the same labor would be considered a simpleton. The coming industry and ultimate destiny of this section is

## Fruits and Vines.

The higher the hills (and they have good soil to their tops) the higher will be the grades of our port, sherry and sauternes wines, unsurpassed in excellence, for sufficient samples have already been produced to establish this fact. The home of the olive is certainly in the warm, dry atmosphere



# AGRICULTURAL NOTES.

## CALIFORNIA.

### Butte.

**CROP PROSPECTS.**—Biggs *Argus*, May 21: A drive over the adobe lands west of town shows the wheat crop to be in a much better condition than we expected. The last two weeks' cool weather has been everything for the crop, and the harvest will show almost an average yield. A number of fields examined will, in our opinion, produce 15 sacks to the acre, and very few places only where the land has been drowned out will produce less than six sacks to the acre.

### Colusa.

**GRAIN CROP PROSPECTS.**—Williams *Farmer*, May 23: The north wind of this week seems to be an affliction we have to bear with every spring. Just now it will do far less damage to the grain than had it come six weeks later. It has been cool and not of the hot, scorching kind usually prevailing at this season of the year. There is enough moisture in the ground and in the stalks of the summer-fallow wheat to mature it without any serious loss or damage, and the probabilities are that we will have at least as large a harvest as usual and of as fine a quality.

### Contra Costa.

**DANVILLE FRUIT PROSPECTS.**—Oor. *Gazette*, May 23: Almond, apricot and prune trees are very full of already good-sized fruit, and other varieties of fruit will yield a fair crop. A very few years more and our valley will fairly swarm with fruit and nut gatherers during their seasons.

### Fresno.

**FRESNO CROPS.**—*Republican*, May 22: The cool weather of the past two weeks or more has proved of remarkable benefit to farmers. Fields of wheat that ten days ago were thought to be entirely destroyed will now yield from a third to a half crop, while those in the eastern portion of the county will yield much heavier than last year. Estimates as to the loss this county will sustain by reason of a late dry season vary from 10 to 30 per cent less than last year's crop, while a few hold that taking the county as a whole, and on account of the increased acreage, the yield will exceed that of last fall. Aside from grain, all other products in the county will exceed those of last year. The honey output on the west side of the county will be the heaviest ever known. It is estimated that our wool shipment will be from one-fifth to one-third heavier than in 1890.

### Glenn.

**CROP PROSPECTS.**—Willows *Journal*, May 23: The grain crop has developed rapidly, and now barley, wheat, etc. are all headed out. Wheat that gave the appearance a week ago of making only a small yield, now presents a more encouraging outlook. The present cool weather will give later sown grain further time for more proper maturing, and will also allow the heads to more properly fill out. The berry is now in the dough, as the farmers term it, and the meshes in the head are well developed. Unless there are some severe dry winds before the berry hardens, the grain will weigh fully up to that of any previous season, and the yield per acre be up to the average. Barley is further advanced than wheat and looks fully as well. In some portions of the county it will be ready for harvesting in a few weeks. Hay has commenced and the crop bids fair to be about as heavy as in previous years. Notwithstanding a few deficiencies, the yield will be above an average, allowing for further drawbacks, and the large acreage sown this year will make the crop of the county an exceedingly large one.

### Humboldt.

**FARM NOTES.**—C. E. Spears, writing from Waddington, says: The grass is growing fast. The cows are doing better this season in the county than last year. The prospects are that we shall be able to make up for the lack of butter from the southern part of the State. Stock is very low. Cannot some one push that railroad through and give us a way out with our produce? The grain crop is good. Potatoes are not being planted very extensively on account of so much land devoted to dairying. The new creamery at Grizzly Bluff is progressing nicely and expects to be in running order by July 1st.

### Lake.

**CROP OUTLOOK.**—Lakeport *Avalanche*, May 21: Inquiry of farmers and fruit-growers from various parts of the county tend strongly to sustain the bright outlook heretofore entertained of a heavy yield of all the farm products of the county. The cool and often cloudy weather that has prevailed during April and May has largely compensated for the lightness of the late rains, and what might have been a dry spring season has been averted. In most parts of the county the soil is still moist and all the conditions necessary to the development and maturing of full crops are present. In some of the valleys, where the soil is very rich, there is danger of too rank growth rather than any results of a drought. The hay crop will be heavy, while grain and fruits of all kinds will make more than an average yield.

### Los Angeles.

**POMONA'S HONEY CROP.**—*Progress*, May 20: The season this year has so far been very favorable in its cool weather for the development of honey in the white sage, the most valuable of our honey-producing plants. In the foothills

in the vicinity of Pomona are from 10 to 20 beehives with stands of bees running from 50 to 600 swarms. The total number of stands is estimated at between 2000 and 3000. Each swarm usually produces from 50 to 200 pounds of honey in a season.

**CONTRACTING FOR NEXT YEAR'S ORANGE CROP.**—*Alhambra Review*, May 23: Much of the orange crop still remains on the trees, the shippers evidently delaying the picking in the expectancy of higher prices. Bids for next year's yield are already being made, one-third of purchase price being offered to close the bargain, with balance payable when the fruit is picked.

**LARGE YIELD OF STRAWBERRIES.**—*Covina Argus*, May 20: T. F. Griswold has taken from his three acres of strawberries 6000 pounds as the result of one picking. The fruit is of superb quality and very large, some having been picked measuring  $4\frac{1}{2} \times 5\frac{1}{2}$  inches.

**A NOVEL INDUSTRY AT PASADENA.**—*Cor. L. A. Express*, May 16: Mrs. Crowell of Center street has gone into the silkworm industry on quite an extensive scale. She has a house for sheltering her numerous trays, of which she has over 70 filled with these squirming creatures. The feeding of the caterpillars, the formation of the cocoons and the securing of these before they are pierced by the moth, and the maturing of a sufficient number of moths to supply eggs for the following year, however interesting, is a work which is something too arduous to be called an amusement. These caterpillars must be fed three times daily with fresh mulberry leaves, and it is a never ceasing marvel to the inexperienced, the quantity and rapidity with which a full grown silkworm will dispose of this food. Among the 70 trays, Mrs. Crowell had the caterpillar in all its stages, from the infinitesimal unhatched egg, the almost invisible tiny worm, and so on in every stage, each grade of growth in a different tray, until the fat, ugly silkworm is mature. When this period is reached, the caterpillar is ready to undergo the transformation into the pupa condition, and it ceases eating for some time, and then begins to ascend the twigs and brushwood provided for its use, and it then sets about spinning its cocoon. The insects complete their cocoons in from three to four days, and in two or three days afterward, Mrs. Crowell collects the cocoons and places them in an intense heat to smother the pupa and prevent its bursting its shell, which spoils the silk for use. After 11 to 15 days have passed, the moths which have not been smothered begin to make their appearance, and coupling takes place immediately. Then the males are destroyed and the females placed in dark boxes till they deposit their eggs. Then once again the round of hatching, feeding and refeeding the greedy creatures. Just at present, the caterpillars are at the spinning stage, and very interesting it is to watch their work.

### Monterey.

**WILL NOT ALLOW HAY CUTTING.**—*Salinas Democrat*: The prospects of high prices for wheat and barley have had the effect to make several landlords in this vicinity refuse to allow their tenants to cut grain for hay as has hitherto been their custom. Hence, there will be very little hay cut and the price is very likely to rule considerably higher than during ordinary seasons.

### Orange.

**POTATO AND CABBAGE SHIPMENTS.**—*Placentia Cor. Anaheim Gazette*: J. W. Fryer has loaded several cars of new potatoes at Fullerton. They were raised on the Olinda ranch. He has several cars more to ship. Quite a good many cars of cabbage are ready to be shipped, but the price is so low it will hardly pay to ship it. About 20 cars of cabbage have been shipped from Placentia, and with the oranges, potatoes, nuts, etc., shipments will round up 100 cars in the season; at \$200 a car, freight is \$20,000. That comes out of the farmers of this one locality annually. What is the matter with the farmers and other parties joining together and building a road of their own to the Missouri river, and ship their produce at nominal rates? Cabbage sells for from \$38 to \$45 a ton East. The grower gets from \$6 to \$10 a ton here. One hundred dollars a car would pay well to Missouri river points; instead we have to pay \$200. We are all simply working for the railroad.

### San Bernardino.

**A TYPICAL FARM AT REDLANDS.**—*The Facts*, May 22: The ranch of H. H. Sinclair is a type of Redlands orchards. He has 30 acres, of which 17 are planted to deciduous fruit, 10 to oranges and the balance is occupied by his fine new house, barn and grounds about them. Last year the gross income was \$4600 and he paid out for labor \$1000. The net profit was about \$3600. His oranges four years ago brought in \$125, three years ago, \$100; two years ago, \$860; one year ago, \$1700. The returns are not in hand for this year, but there is a big increase over last year's figures.

### San Diego.

**IMPROVING THE STOCK.**—*St. Julian Sentinel*: Our stock interests, while decreasing in quantity, are increasing in quality and value. The stockmen are wide awake to their best interests, and are now raising only the better grade. Cattle receive the most attention, and thousands of fat beefs find their way to market from these mountains, bringing many a golden shekel into the pockets of their owners. In this connection, the attention of the public is called to the many high-grade stallions advertised in this issue, showing plainly where the

horse of the future will largely be bred. Sheep are rapidly disappearing from our midst, but the goat, which is all profit, can still be found in all rough places. But little attention has yet been paid to the hog, but the dollars that are to be made out of the animal will attract attention in future.

### San Luis Obispo.

**CATTLE NOTES AT CRESTON.**—*Cor. Tribune*, May 22: The movement of cattle from and to the cattle ranches and markets still goes on. Mr. Easton Mills, of the Cammatti ranch, with a fine drove of No. 1 fat cattle, which were en route for the San Francisco market, passed here. Capt. Clark of the Vaquero Spring ranch has been out the past week purchasing young cattle for his ranch. He came in with a fine drove of yearlings and two-year-olds, some 250 head. The captain is out of the calf-raising business. He will divide the toil by taking the one and two-year-olds. The captain's head is level on that part of the cattle business. It takes less money to raise a yearling by dollars than it does by milk.

### Solano.

**THE HAY CROP.**—*Dixon Tribune*: The effect of the good prices at which wheat opened will be to shorten the hay crop. Farmers will thresh everything that will yield above five or six sacks to the acre. Hay is likely to command good prices. Not much has been sold as yet, but as high as \$10 per ton is asked for loose hay.

### Sonoma.

**FRUIT YIELD ESTIMATE AROUND HEALDSBURG.**—*Enterprise*, May 16: Joseph Hotchkiss estimates that over 3000 tons of peaches will be produced in the country tributary to Healdsburg this season. He is of the opinion that about 28 carloads, or 280 tons, of dried prunes will be produced in this section this year. Twenty-four carloads, or 240 tons, were marketed from this point last season, the Star Dried Fruit Co. shipping 163 tons.

**ABUNDANT CROPS.**—*Petaluma*, May 21: The Petaluma Fruit-Packing Company commenced work for the season this morning on cherries. It expects to put up during the season 75,000 cases. Fruit trees of all kinds are loaded down, and orchardists have to pull off much of it to save the trees and get better fruit. Hay is general in this section, and over 100 mowers are running in sight of the town. Hay and other crops are very promising.

### Tulare.

**PLOWING OVER THIRTY INCHES DEEP.**—*Tulare Register*, May 22: Mr. J. J. Cairns is preparing 80 acres to be planted to fruit next fall in a way that will test the efficacy of deep plowing if anything will. It is at his home place near Lindsay Station. The land is a mixture of clay and sand in such proportions as will make it easy of cultivation, but it has never been irrigated, and for want of an irrigation system in the neighborhood must be irrigated, if at all, from pump and well. It is therefore necessary that the land should be put in the best possible condition for holding water, and Mr. Cairns has gone about the business of preparation in this wise: Taking off all but two plows from his gang, he attached ten mules, weighted the plow down and sent it into the soil 12 to 13 inches. He was able to do this because the ground had been plowed and cross-plowed a number of times. Following this team came a subsoiler with 14 mules attached, and which went into the earth from 30 to 32 inches from the surface, tearing up the subsoil in a way that has been seldom, if ever, equaled in this country. If this land does not take in and hold, perennially, all the moisture which comes down from heaven, it will be because the surface is not kept free from weeds or because there is no efficacy in deep plowing. We shall watch results on this piece of land with interest.

**VINES AND TREES DOING WELL.**—*Advocate*, May 21: The immense acreage set to vines and fruit trees around Traver this season is doing well. The vines and trees are putting forth thrifty shoots and promise to make a thrifty growth during the summer. A very small percentage failed to grow and but very little replanting will be required, which proves the good growing qualities of our soil.

### Ventura.

**BIG FRUIT ORCHARD AT PURI.**—*Free Press*: D. C. Cook's orchard consists at present of 1941 acres, divided as follows: Apricot orchard, 400 acres, of which 250 acres are in bearing, the balance of the orchard will come into bearing next season. They expect to gather 200 to 250 tons this season. The fig orchard has 650 acres, of which 200 acres are now bearing. The varieties are White Smyrna and White Adriatic. Expect to gather 200 tons. Lemons and oranges, 290 acres. Not producing. Trees 1, 2 and 3 years old. Olive orchard (Picholine and Mission) 250 acres. Not producing. Trees 3 years old. Peach orchard, 50 acres. Not producing. Trees but one year old. Prune orchard, 20 acres. Not producing. Orchard 1 year old. Apple orchard, 24 acres. Not producing. Orchard 2 years old. Pomegranates, 20 acres. Part of trees in bearing. In addition to this extensive fruit business, the acreage in products will show as follows: Corn, 200; potatoes, 100 acres; hay, 300. Orange and lemon nursery, 35 acres. Ninety thousand budded orange trees are now ready for market; 5000 olive outtings; 6000 White Smyrna figs, and 5000 peaches. Planting has already commenced on 300 acres, which, added to his extensive orchards, will increase

the grand total to 2241 acres. Let it be understood that Mr. Cook is a most vigilant worker; constantly adding to and improving the lands when secured. Mr. Cook employs none but white labor, to whom he pays liberal wages, and providing married men with a comfortable house, etc. He now employs over 200 persons on his place, and during fruit-picking will require several hundred more.

### ARIZONA.

**THE IRRIGATION SYSTEM ENLARGING.**—*Tucson Citizen*, May 16: There are many ditch companies in the Territory of Arizona, and more canals in the course of construction. The Tucson canal is rapidly progressing and the canal near Gila Bend, known as Wolfley's canal, has now been begun. A map of Arizona will show that the Gila river takes a huge curve east of the station known as Gila Bend. About 35 or 40 miles north of the station the Gila passes through bluffs and canyons of considerable length, opening out below into a broad and fertile valley. A more favorable location for a canal could not be "made to order." At the lower end of these bluffs is a most excellent site for a reservoir, and here one is being built. Gen. Johnson states that he does not know its dimensions, but gives an idea of its magnitude in saying that it will irrigate from 200,000 to 300,000 acres of land in the mesa below. Teams and men are now excavating and piling up the huge embankment needful to contain the enormous weight of the water. Gen. Johnson reports that the intention of the projectors of the canal, with the capital they have beheld them, is to push the work with all the speed practicable and to complete it by the first of November. The canal will pass through the splendid level valley lying east of the river, swinging round from it several miles, bringing in north of the railroad and passing below the station for some 20 miles. The entire course of 60 or 70 miles will be level, is through cultivable land, and none of the difficulties encountered by the Tucson Canal Company in the removing of large boulders will hinder here. On this great area of finest soil farmers from the East will flock and make their homes, and Arizona will no longer be reported to the world at large a vast and sterile desert. Its location will undoubtedly give the canal advantage over those of the Salt River or Santa Cruz valleys, which are not noted unless sought.

**FRUIT IN CASA GRANDE.**—*F. B. Logan in Tucson Citizen*: It has already been demonstrated to the satisfaction of the painstaking and observant that there lies in and beneath the soil of Casa Grande and environs far greater and more certain wealth in its peculiar adaptation to the production of fruit trees, coupled with a climate inferior to none in the surety of fruit bearing, and quantity and quality of the production. To become satisfied of the above requires but to behold and believe. In the dooryard of J. M. Woods, proprietor of the Simcoe House, may be seen young apricot trees planted February, 1890, so heavily loaded with fruit that Mr. Woods was required to thin to about one-half the original amount. Prune trees show a growth of two feet already before the last spring months have merged into summer. Fig trees adorn his garden that were six-inch cuttings 15 months ago, now full set with the promise of this luscious fruit. Corn planted six weeks ago is four feet high and potatoes planted 18 days ago are in blossom to day.

Slight derangements of the stomach and bowels may often be corrected by taking only one of Ayer's Pills. Through not having the Pills at hand, your disorder increases, and a regular fit of sickness follows. "For the want of a nail, the shoe was lost," etc.

### Our Agents.

OUR FRIENDS can do much in aid of our paper and the cause of practical knowledge and science, by assisting Agents in their labors of canvassing, by lending their influence and encouraging favors. We intend to send none but worthy men.

GEO. WILSON—Sacramento Co.  
J. C. HOAG—San Francisco.  
F. W. KNAPP—Amador Co.  
F. B. LOGAN—Solano and Yolo Cos.  
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E. H. SCHAEFFER—Central California.  
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A. DUNLAP—San Benito Co.  
E. L. RICHARDS—Eaccondido, Cal.  
WM. M. HILLSBARY—Oregon.  
WM. HOLDEN—Oregon.  
WM. OLSON—Washington.  
DON MILLS—Sonoma Co.  
FRANK S. CHAPIN—Tulare and Kern Cos.  
B. F. BELT—Shasta Co.

### Unitarian Literature

Sent free by the CHANNING AUXILIARY of the First Unitarian Church, cor. Geary and Franklin Sts., San Francisco. Address Mrs. B. F. Giddings as above.

### \$3,250,000

TO LOAN ON MORTGAGE ON RANCHES AND CITY real estate below market rates. HOWE & KIMBALL, 508 California St., S. F.

### Important to Farmers.

We have \$3,000,000 in sums of \$5000 up to loan on County Ranch Property below market rates. If you desire a loan or wish to renew one at lower rates, write us the rate of interest you are now paying and we will immediately advise what amount we can save you. MERCANTILE AGENCY & INVESTMENT CO., 16 Post St., S. F. Will E. Fisher, Pres.; Eugene G. Davis, Vice-Pres.; Wm S. Tevis, Treas.; Alfred D. Hall, Sec'y.



# You Drive, These Machines Do the Rest.

## WALTER A. WOOD Single Apron Binder

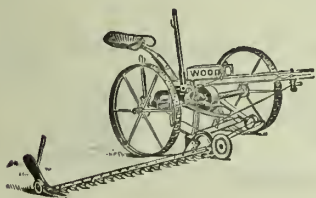
EASILY MEETS THE SEVEREST EXACTIONS OF FIELD WORK, AND IS SO RELIABLE INEXPERIENCED HANDS DO BETTER WORK WITH IT THAN EXPERTS CAN WITH OTHERS.

A TWO-HORSE MACHINE.

SO PERFECT IN PRINCIPLE AND CONSTRUCTION THE DRAFT IS REDUCED TO A MINIMUM AND ANY ONE CAN OPERATE IT.

HANDLES ANY KIND OR CONDITION OF CROP, EVEN TO FODDER CORN OR SORGHUM, AND IS A GREAT GRAIN SAVER.

BOYS DO A MAN'S WORK WITH IT.

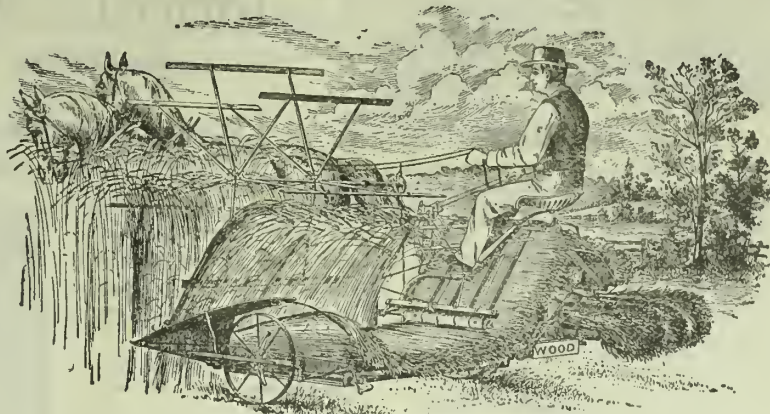


THE KNOTTER IS INFALLIBLE,  
EVEN AFTER LONG USE.

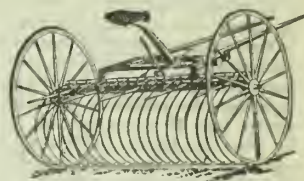
ECONOMY IN USE OF TWINE AND MANY OTHER  
SPECIAL POINTS OF ADVANTAGE.

ADDRESS

**Frank Brothers, Walter A. Wood,**  
33 & 35 Main St. 68 Front Street,  
SAN FRANCISCO, CAL. PORTLAND, OREGON.



LAP JOINTED  
STEEL MAIN FRAME.  
INDESTRUCTIBLE  
STEEL DRIVE WHEEL.  
THIN STEEL PLATFORM.  
ONE APRON ONLY.  
STEEL BUNDLE CARRIER.



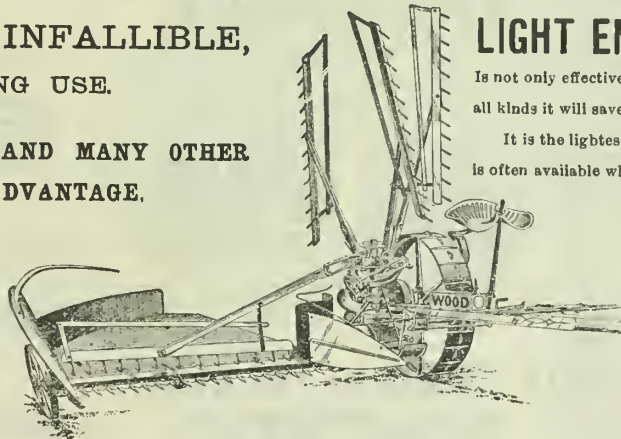
## LIGHT ENCLOSED GEAR REAPER

Is not only effective in good standing grain, but in the worst crops of all kinds it will save where other reapers cannot work.

It is the lightest-weight reaper in the world, yet the strongest, and is often available where land is too rough for others.

The broad sweep of the rakes delivers the grain so well that men can bind after it better and faster than after many other side-delivery reapers.

The driver has perfect command of the machine without turning his head from the team. With the levers he can adjust the height of the machine or tilt it to any angle independently, or regulate the size of the gavel by setting a lever.



## REGAN VAPOR ENGINE.

NO BOILER. FIRE. EXPLOSION. STEAM,  
ASHES OR ENGINEER.

Started Instantly Without Even a Match. Will Run on Natural or Manufactured Gas or Gasoline. The Moment Engine Ceases to Run, all Expense Stops.

Upright and Horizontal, Stationary and Marine Engines from 3-4 Horse Power, Upward.

Our Engines are especially adapted for Pumping and Irrigating and Spraying Fruit Trees; in fact, for any use where power is required.

OVER 400 IN USE.

POPE & TALBOT, LUMBER, Office, 204 California Street }  
SAN FRANCISCO, Feb. 25th, 1890.

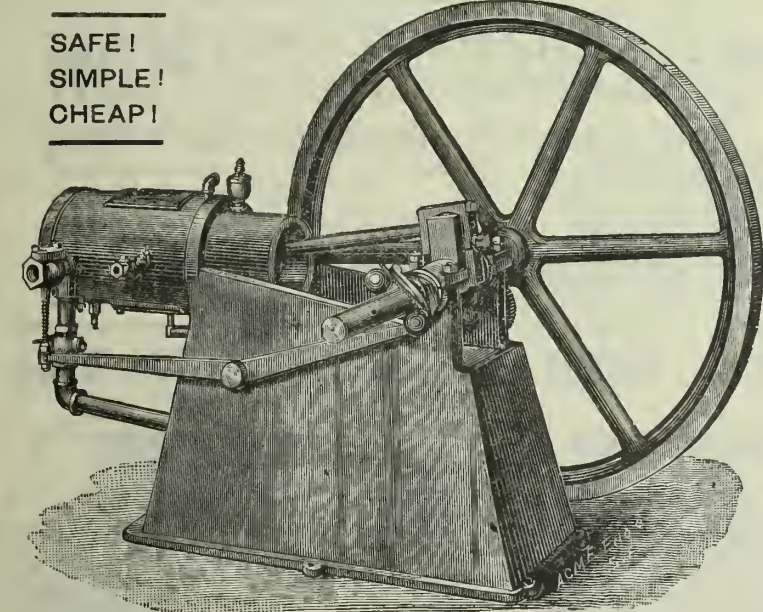
REGAN VAPOR ENGINE Co.—Gentlemen: The 4 H. P. Vapor Engine I bought of you last May has been in constant use ever since, and has given me entire satisfaction. I have found the engine to be all that you claimed for it, and more too. You can use my name for reference if you so desire. I am, yours truly,  
H. TALBOT.

We Carry Thos. Kane & Co's Famous Racine Launches, fitted with our New Compound Engines.

Send for Circular.

**REGAN VAPOR ENGINE CO.,**

221-223 First Street San Francisco, Cal.

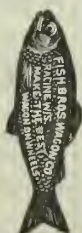


SAFE!  
SIMPLE!  
CHEAP!

## STEEL AXLE WAGONS

AND  
AS TRUE  
AS STEEL  
IN EVERY WAY.

FISH BROTHERS' MAKE. FULLY WARRANTED.

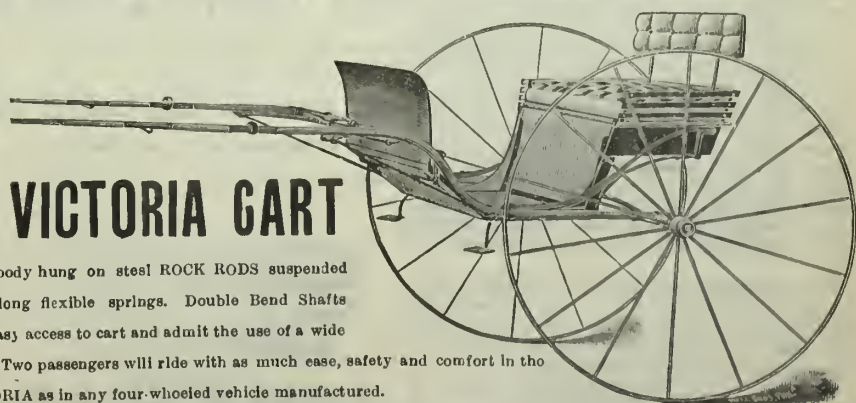


## VICTORIA CART

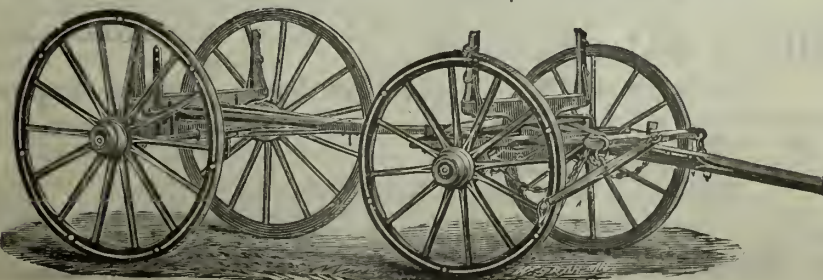
With body hung on steel ROCK RODS suspended from long flexible springs. Double Bend Shafts give easy access to cart and admit the use of a wide seat. Two passengers will ride with as much ease, safety and comfort in the VICTORIA as in any four-wheeled vehicle manufactured.

STEEL ROCK RODS

At front and rear is a new principle of construction found only on the Victoria and a great improvement, making it ride as easy as a buggy.



**FRANK BROTHERS, 33 & 35 MAIN ST.,  
SAN FRANCISCO.**





## What We Owe to the Invention of Machinery.

Few persons have any correct idea of the difficulties which were met with 60 to 70 years ago in making suitable tools and machinery from metal. There were no planing, boring or shaping machines; the turning lathe and the drill-borer were about all the devices which could be called into use by the mechanic of that time. Inventors had to make by hand the machines they invented, with the aid of other machines in making the individual parts. They had to invent some tools so as to be able to make certain parts of their invented machine. When the celebrated English machinist Clement entered a shop as master at London in 1814, he found the tools so poor and defective that he had to spend days in making such ones as were needed. James Watts, the inventor of the steam engine, could not get his first machines in working order in consequence of a lack of some contrivances. The first cylinder which he had cast was not tight, and was on one end five millimeters wider than on the other. A good cylinder should not show more difference in width than one-half millimeter.

And then the cost of work at that time was extravagant. Whitworth, one of the oldest manufacturers of working machines in England says that the polishing of cast-iron cost \$3 per square foot 40 years ago, as the work had to be done by hand. The manufacturer Perry paid for the first steel pens \$1.25 a piece, but still these pens were not as good in quality as those which are made to-day. After factories had been established, the price of a steel pen was still \$1, then 50 cents, and then 25 cents, which price was kept up for some time. To-day one can get a gross for that price; all owing to our perfect machinery.

**A GREAT BRIDGE.**—The great steel bridge across the Columbia river at Vancouver will be a mammoth concern. It will be 6000 feet from the Washington to the Oregon shore; it will be double tracked with roadway on top for teams, and will be erected upon pneumatic piers. The pivotal pier, or draw pier, will support a draw which will give an opening of 200 feet space on either side for vessels to pass, and the span immediately south of the draw span will be 375 feet. Whole structure to be of steel, built 10 feet above the high water of 1876, and 40 feet above low water. On account of the sandy formation it will be necessary to go down 80 feet below low water to get a firm foundation. This gigantic structure will cost over \$4,000,000. It will be Jan. 1st, 1892, before the cars can pass over it. The company is pushing the bridge and also the road as fast as men and money and their present perfected plans will permit.

### HOW TO DRESS WELL.

It may be an easy matter for Mrs. Vanderhilt to dress well. She has no use for this advice. But people in moderate circumstances should save their dollars by using Diamond Dyes. Feathers, faded ribbons, and all dress goods can be easily colored and one's wardrobe always be kept fresh and attractive.

A young friend, a type-writer (a class that must dress well), found herself in need of a street dress, without much money to spend for it. She ripped and washed a grey flannel dress, and colored it a warm, rich brown with Diamond Dye Fast Brown. Her work was a success, and no one would have taken this tasty suit for a home dyed dress.

Use Diamond Dyes for your home dyeing, and always have satisfactory results. They are simplest, strongest, and fastest, making the latest fashionable colors.

**COMPRESSED COAL IN FRANCE.**—Compressed coal is coming largely into use in France. It is reported that there is hardly a torpedo boat belonging to France in which the compressed coal dust is not used, and it is consumed in the battle ships wherever possible. These briquettes are generally composed of a mixture of from 8 to 9 per cent of pitch, with 92 to 91 per cent of coal dust. In the most improved machines the coal dust and the pitch are shoveled into a hopper, and it is not touched again until it is automatically stacked in the yard outside the engine-room. The materials are consolidated by means of a mixing apparatus into which steam is admitted. A form of coal which, by itself, is almost useless for burning, is thus converted into a really serviceable fuel, that, as regards cheapness, may be made to enter into successful competition with the best steam coal. More persistent efforts should be made to utilize the mountains of coal waste which are so fast accumulating in this country.

For several years past a gentleman in Nashua, N. H., has been in the habit of taking Ayer's Sarsaparilla to tone up his system preparatory to the heated term. He finds that this medicine relieves the tired feeling so prevalent during spring and early summer.

### ORANGE PLANTERS

Should read the advertisement of the Aloha Nurseries. The best varieties are offered at rates so low that no one need hesitate about planting for experiment, or for investment in places where the orange is known to thrive.

\$500,000

TO LOAN IN ANY AMOUNT AT THE VERY LOWEST market rate of interest on approved security in Farming Lands. A. SCHULLER, Room 8, 420 California St., San Francisco.

## AYER'S PILLS

Excel all others as a family medicine. They are suited to every constitution, old and young, and, being sugar-coated, are agreeable to take. Purely vegetable, they leave no ill effects, but strengthen and regulate the stomach, liver, and bowels, and restore every organ to its normal function. For use either at home or abroad, on land or sea, these Pills

### Are the Best.

"Ayer's Pills have been used in my family for over thirty years. We find them an excellent medicine in fevers, eruptive diseases, and all bilious troubles, and seldom call a physician. They are almost the only pill used in our neighborhood."—Redmon C. Conly, Row Landing P. O., W. Feliciano Parish, La.

"I have been in this country eight years, and, during all this time, neither I, nor any member of my family have used any other kind of medicine than Ayer's Pills, but these we always keep at hand, and I should not know how to get along without them."—A. W. Soderberg, Lowell, Mass.

"I have used Ayer's Cathartic Pills as a

### Family Medicine

for 35 years, and they have always given the utmost satisfaction."—James A. Thornton, Bloomington, Ind.

"Two boxes of Ayer's Pills cured me of severe headache, from which I was long a sufferer."—Emma Keyes, Hubbardstown, Mass.

## Ayer's Pills,

PREPARED BY

Dr. J. C. AYER & CO., Lowell, Mass.

Sold by all Dealers in Medicine.



**HIRES**  
ROOT BEER  
THE GREAT HEALTH DRINK.  
Package makes 5 gallons.  
Delicious, sparkling, and  
appetizing. Sold by all  
dealers. FREE a beautiful  
Picture Book and card  
sent to any one addressing  
C. E. HIRES & CO.,  
Philadelphia.

## IT STANDS AT THE HEAD!

**"DOMESTIC"**  
THE LIGHT RUNNING  
SEWING MACHINE

DO NOT FAIL to SEE THE "DOMESTIC" Before Buying a Sewing Machine.

It is the leader in practical progress. Send for price list

J. W. EVANS, 29 Post St., S. F.

### TRY WOODBURY'S

## IMPROVED RESIN WASH.

Send for Circular. ONLY 13¢ a Gallon.

Perfect Removal of Scale and Invigoration of Trees Without Hazard of Injuring Guaranteed.

Address **WOODBURY OIL CO.,**

123 California St., San Francisco.

## How to Make Money

SURPRISING INDUCEMENTS OFFERED TO LADIES and Gentlemen to get up Clubs for our Celebrated

## TEAS, COFFEES & SPICES.

Special terms to consumers. Catalogue mailed free on receipt of name and address.

**Great American Importing Tea Co.**

52 to 58 Market St., San Francisco.

Agents wanted everywhere.



**TRUMAN, HOOKER & CO.,**  
SAN FRANCISCO.

J. F. HOUGHTON, President, J. L. N. SHEPARD, Vice-Pres.  
CHAS. R. STORY, Secy, R. H. MACILL, Gen. Agt.

**Home Mutual Insurance Company,**

216 Sansome Street, San Francisco.

INCORPORATED A. D. 1864.

Losses Paid Since Organization.....\$3,175,759 21  
Assets, January 1, 1891.....867,512 19  
Capital Paid Up in Gold.....300,000 00  
NET SURPLUS over everything.....278,901 10

## TO SHIPPERS!

## California Ventilated Barrel

EXCELS ALL OTHERS!

IT IS LIGHTER, STRONGER, MORE DURABLE AND BETTER VENTILATED THAN ANY OTHER BARREL.

This engraving of the CALIFORNIA VENTILATED BARREL makes plain to the practical shipper its points of superiority over the common barrel, which may be enumerated as follows:

It weighs from five to seven pounds less than the ordinary barrel, making a material saving in freight charges.

It costs less than one-half for trimming, and does not require an experienced hand to cooper it.

It is Made of the Best Quality of Spruce, Woven Together with Copper Wire, And can be furnished in any size desired.



It is the only thoroughly ventilated barrel made, a very important point.

The heads are warranted not to come out in transit, and no liners are required.

It is stronger and more durable than any other barrel.

Never varies in size, even to the extent of a quart.

— ALTOGETHER MAKING IT —

**The Cheapest and Best Barrel on the Market.**

THE CALIFORNIA BARREL IS ADAPTED TO SHIPPING THE FOLLOWING ARTICLES:

Apples,  
Oranges,  
Onions,  
Potatoes,

Sweet Potatoes,  
Dried Meats,  
Bottled Goods,

Glassware,  
Canned Meats,  
Crockery,

Eggs,  
Poultry,  
Walnuts,  
Almonds,

And Vegetables of All Descriptions.

A factory making these barrels is now in operation in San Francisco, with a capacity of 4000 barrels a day. The success of the barrel is almost unprecedented, and it is bound to become the package in a very short time. EVERY ONE USING IT IS ENTHUSIASTIC IN ITS PRAISE. IT HASN'T A FAULT. When shipped in knock-down form, about 2500 barrels can be placed in a single car. Special rates given on car lots. WRITE FOR PRICES AND PARTICULARS.

**California Ventilated Barrel Co.,**

No. 403 MARKET STREET, - - - SAN FRANCISCO, CAL.

FACTORY: N. W. Cor. Powell and North Point Streets.



## CLARK'S CUTAWAY PLOW

A Complete Revolution in Plowing Requires Less than Half the Power of any other Gang Plow. Strong and Durable. Makes a Perfect Seed Bed.

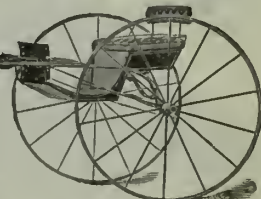
SEND FOR SPECIAL CIRCULAR.

**HIGGANUM MFG. CORPORATION** SOLE Manufacturers  
HIGGANUM, CONN., or 183 WATER STREET, NEW YORK.

## THE BLUE RIBBON CART, WITH PHAETON BODY.

\$35

Has a seat wide enough for two, with box underneath for parcels. The body has been strengthened, is securely framed and strengthened by making the panels in one piece. Seven wheels, steel axles, and curved dash. Finished in scarlet lake or brewster green. The "Blue Ribbon" has proved to be the best built, most popular and best selling low priced Phaeton Cart ever brought to this market. With Patent Spiral Spring Lazy Back. Shipped securely crated. Weight, 175 pounds.



**FRANK BROTHERS,** 33 & 35 MAIN STREET, SAN FRANCISCO.

## WHALE OIL SOAP

EIGHTY PER CENT DRY.

J. N. KNOWLES,  
Manager.

**ARCTIC OIL WORKS,**

EDWIN L. GRIFFITH  
Secretary.

— Manufacturers of —  
SPERM, WHALE, ELEPHANT AND FISH OILS,  
MINERAL, LUBRICATING AND ILLUMINATING OILS,  
LARD AND TALLOW OILS.

OFFICE, 28 CALIFORNIA STREET, - - - SAN FRANCISCO.

## JAPANESE INSECT DESTROYER

For the protection of Cabbages, Squash, Cucumbers, in fact all vegetation from destructive insects. Contains no poison. Price by mail 25c. Stamps accepted. Friend Medicine Co., Graham, Neb.

## PRICE'S HAY PRESSES

FOR SALE.

Genuine Price Petaluma Press.

Junior Monarch Hay Press.

Hurricane (Size A) Hay Press.

Wide West Hay Press.

— ADDRESS —

**L. C. MOREHOUSE, San Leandro.**

## FOR SALE OR EXCHANGE

— 1 offer a —

**Sixteen-Horse Traction Engine,**

**ALSO THRESHING MACHINE,**

36-inch Cylinder, 55-inch Cleaning Apparatus.

Both only run 30 days and are new and in the best of order, have been housed and show no wear. Have no use for them and will give some one a bargain that needs such an outfit. Address

**D. M. BALDWIN,**

Florence, Los Angeles County, California.



Alameda Co. Farmers' Institute.

A conference of farmers not members of the Grange or Alliance was held at the Pioneer and Grange picnic at Alvarado, May 23d, and H. W. Meek of San Lorenzo, I. B. Haines and J. C. Whipple of Decoto were elected on the Board of Managers for calling and arranging for the first meeting of the Institute to be held probably in August next. This selection of farmers outside of the Order makes the full board of nine members. H. B. Valpey of Warm Springs, T. B. Downing of Pleasanton and Joseph Shinn of Niles having been selected by the Farmers' Alliance and W. C. Blackwood, Mr. Munson of Haywards and A. T. Dewey of Oakland, the Grange. W. Renwick of East Oakland, L. E. Osgood and A. B. Montross of Irvington, C. C. Scott of Alvarado and James Shinn have also been elected as alternates to act in case of absence of principles chosen.

The farmers elected at Alvarado with several representing the Orders named by vote recommended a meeting of the board at Niles on Saturday, June 13th, and A. T. Dewey was requested to notify members of the board to be present.

We believe much interest will be taken in even the first session of the Institute, and that it will increase at each succeeding meeting.

All Farmers

Are requested to attend and participate in the proceedings of these Farmers' Institute meetings. Many should write and read articles, if ever so brief, on subjects and methods they are most practically familiar with; others join in discussing the papers presented and exchanging views and experiences on farming and household topics. Suggestions, in the meantime, to the Board of Managers are in order. It is hoped they will all be prompt to attend, and be prepared to help make the enterprise a success from the beginning. Inquiries should be made before June 13th as to what convenient place can best accommodate the first Institute meeting for a one or two days' session. Like the Teachers' Institutes and the Fruit Growers' Convention, these Institute gatherings can be made socially and materially profitable to all attendants.

A STARTLING REVELATION

To all owners of Horses. The "Complete Horse Book" tells all you want to know about the Horse. How to cure all his diseases without a doctor. Buy it and read it, and it will save you many a dollar. Sent for 10 cents, silver or stamps. Pioneer Buggy Co., Columbus, O.

Complimentary Samples.

Persons receiving this paper marked are requested to examine its contents, terms of subscription, and give it their own patronage, and as far as practicable, aid in circulating the journal, and making its value more widely known to others, and extending its influence in the cause it faithfully serves. Subscription, paid in advance, 5 mos. \$1; 10 mos., \$2; 15 mos., \$3. Extra copies mailed for 10 cents, if ordered soon enough. If already a subscriber, please show the paper to others.

NEWSPAPER AGENTS WANTED.

Extra inducements will be offered for a few active canvassers who will give their whole attention (for a while at least) to soliciting subscriptions and advertisements for this journal and other first-class popular newspapers. Apply soon, or address this office, giving address, age, experience and reference. Special inducements to old agents.

DEWEY & Co., Publishers,  
No. 220 Market St., S. F.

Don't Fail to Write.

Should this paper be received by any subscriber who does not want it, or beyond the time he intends to pay for it, let him not fail to write us direct to stop it. A postal card (costing one cent only) will suffice. We will not knowingly send the paper to any one who does not wish it, but if it is continued, through the failure of the subscriber to notify us to discontinue it, or some irresponsible party requested to stop it, we shall positively demand payment for the time it is sent. LOOK CAREFULLY AT THE LABEL ON YOUR PAPER.

Half Tone Photo-Engravings.

Decided improvements have been made by the DEWEY ENGRAVING CO., of San Francisco, in the production of Photo facsimile printing plates that are worthy the attention of all publishers and printers.

With the advent of this style of fine and superior engravings comes an important reduction in prices over the older, slower and less perfect methods of reproductions of photographs, drawings, lithographs, paintings, printed engravings, etc. Parties interested should consult the DEWEY ENGRAVING CO., No. 220 Market St., S. F. Send for samples, estimates, prices, etc.

Ditching Machine for Sale.

If any farmer in Russian river or Santa Rosa valley desires a DITCHING MACHINE at a very low price let him address S. E. G., P. O. box 2617, San Francisco.

List of U. S. Patents for Pacific Coast Inventors.

Reported by Dewey & Co., Pioneer Patent Solicitors for Pacific Coast.

FOR WEEK ENDING MAY 19, 1891.

- 452,512.—APPARATUS FOR IMPREGNATING LIQUIDS WITH GAS—U. Bachmann, S. F.
- 452,513.—PRESERVING FILES—Frank Batter, Marshfield, Oregon.
- 452,503.—FOLDING BED—C. Boller, S. F.
- 452,425.—THREE WHEELED VEHICLE—C. H. Coffin, S. F.
- 452,597.—BURGLAR ALARM—C. C. Davis, Los Angeles, Cal.
- 452,667.—SUSPENDERS—Elliot & Bemis, Los Angeles, Cal.
- 452,699.—BREECH-LOADING GUN—W. R. Finch, Eureka, Cal.
- 452,437.—STEAM BOILER ALARM—A. W. Gilfillan, Eureka, Cal.
- 452,520.—EXPLOSIVE ENGINE—August Harding, Oakland, Cal.
- 452,642.—GAME PUZZLE—C. P. Harris, S. F.
- 452,521.—STEAMER—Mary S. C. Hartmann, Redding, Cal.
- 452,523.—ELECTRIC INSULATOR—Byron Jennings, San Jose, Cal.
- 452,645.—INSULATOR HOLDER—Byron Jennings, San Jose, Cal.
- 452,527.—DESK AND SEAT SUPPORT—J. F. McElroy, S. F.
- 452,678.—WATER GAUGE—McFarlane & Barrett, San Bernardino, Cal.
- 452,611.—CONDUCTOR FOR ELECTRIC RAILWAYS—E. W. Mitchell, Spokane Falls, Wash.
- 452,526.—FAUCET—Moore & Grim, S. F.
- 452,529.—ATHLETES SUPPORTERS—J. J. Pfister, S. F.
- 452,624.—STENCILING MACHINE—G. H. Tietjen, S. F.
- 452,684.—CLOSING DEVICE FOR WATER CLOSET LIDS—W. R. Webster, Pine Grove, Cal.
- 452,685.—SPRING HINGE—W. R. Webster, Pine Grove, Cal.
- 452,492.—EXCAVATING APPARATUS—J. S. Whitcomb, S. F.
- 452,628.—PUMPING APPARATUS—White & Miller, Suisun, Cal.
- 452,510.—INSULATED ELECTRIC CONDUCTOR—J. B. Williams, Oakland, Cal.
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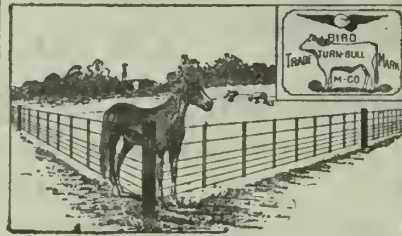
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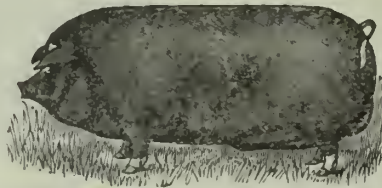
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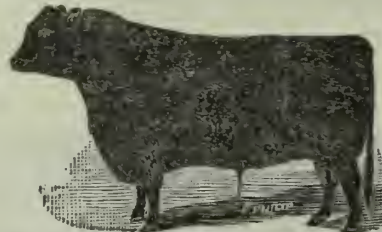


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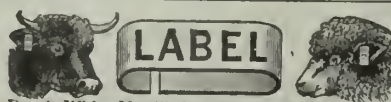
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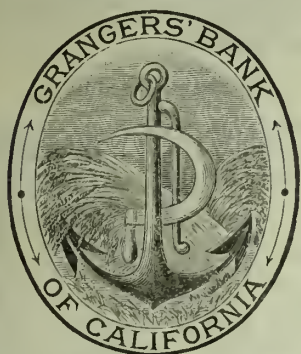
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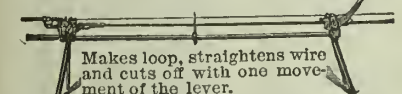
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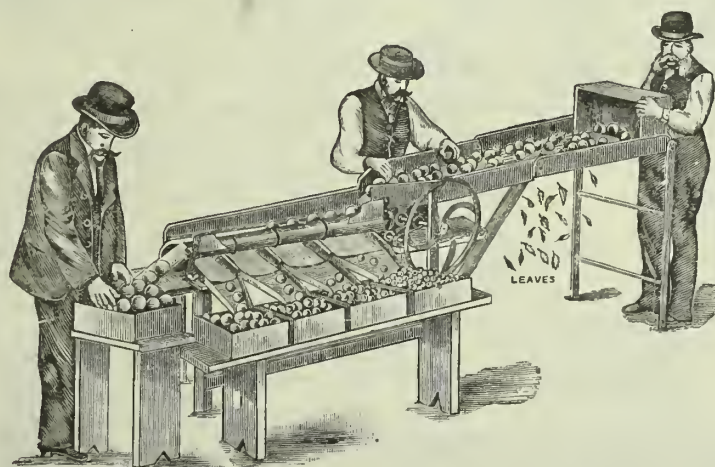
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## S. H. MARKET REPORT

## Market Review.

## DOMESTIC PRODUCE, ETC.

SAN FRANCISCO, May 27, 1891.

The weather the past week has been favorable for maturing grain crops by checking ripening and causing the berry to fill out to much better advantage. It is asserted that the improved crop weather has added all of 20 per cent to the yield. The cool weather keeps fruit back, but probably it is for the best, although when warm, forcing weather does set in, the fruit may ripen too fast, and under heavy shipments cause lower prices to obtain than otherwise would. The money market is reported unchanged. Considering the Eastern and European markets ours is fairly easy. In wheat, the markets at the East and abroad have fluctuated considerably. The following is to-day's cablegram from England:

LIVERPOOL, May 27.—Wheat—Steady. California spot lots, 8s 3/4d; off coast; 44s 3d; just shipped, 44s 6d; nearly due, 44s; cargoes off coast, quiet but steady; on passage, quiet; Mark Lane wheat quiet; weather in England, cool and wet.

## Liverpool Wheat Market.

The following are the closing prices paid for wheat options per cwt. for the past week:

	May	June	July	Aug.	Sept.	Oct.
Thursday.....	86d	86 1/2d	86 1/2d	86 1/2d	86 1/2d	86 1/2d
Friday.....	86d	86 1/2d	86 1/2d	86 1/2d	86 1/2d	86 1/2d
Saturday.....	86 1/2d	86 1/2d	86 1/2d	86 1/2d	86 1/2d	86 1/2d
Monday.....	86 1/2d	86 1/2d	86 1/2d	86 1/2d	86 1/2d	86 1/2d
Tuesday.....	86 1/2d	86 1/2d	86 1/2d	86 1/2d	86 1/2d	86 1/2d

The following are the prices for California cargoes for off coast, nearly due and prompt shipments for the past week:

	O. C.	P. S.	N. D.	Market.
Thursday.....	44 3/4d	44 1/2d	44 1/2d	Quiet.
Friday.....	44 3/4d	44 1/2d	44 1/2d	Firmer.
Saturday.....	44 3/4d	44 1/2d	44 1/2d	Quiet.
Monday.....	44 3/4d	44 1/2d	44 1/2d	Quiet, but steady.
Tuesday.....	44 3/4d	44 1/2d	44 1/2d	Firm, but quiet.

## Eastern Grain Markets.

The following shows the closing prices of wheat at New York for the past week, per cental:

	Day	May	June	July	Aug.	Sept.	Dec.
Thursday.....	1891	186 1/2	181 1/2	175 1/2	173 1/2	173 1/2	173 1/2
Friday.....	1891	186 1/2	181 1/2	175 1/2	173 1/2	173 1/2	173 1/2
Saturday.....	1891	186 1/2	181 1/2	175 1/2	173 1/2	173 1/2	173 1/2
Monday.....	1891	186 1/2	181 1/2	175 1/2	173 1/2	173 1/2	173 1/2
Tuesday.....	1891	186 1/2	181 1/2	175 1/2	173 1/2	173 1/2	173 1/2

The closing prices for wheat have been as follows at Chicago for the past week, per cental:

	Day	May	June	July	Aug.	Sept.	Dec.
Thursday.....	1891	168 1/2	161	164 1/2	164 1/2	164 1/2	164 1/2
Friday.....	1891	168 1/2	161	164 1/2	164 1/2	164 1/2	164 1/2
Saturday.....	1891	168 1/2	161	164 1/2	164 1/2	164 1/2	164 1/2
Monday.....	1891	168 1/2	161	164 1/2	164 1/2	164 1/2	164 1/2
Tuesday.....	1891	168 1/2	161	164 1/2	164 1/2	164 1/2	164 1/2

NEW YORK, May 27.—Wheat—\$1.11 1/2 for May '92, \$1.08 1/2 for July, \$1.04 1/2 for August, \$1.04 for September, and \$1.05 1/2 for December.

## Wheat in France.

PARIS, May 21.—Eclair publishes to-day an interview with officials in the office of the Minister of Agriculture in reference to the projected wheat corner. These officials said they did not believe that the people who are engineering the corner would succeed in attaining the object in view, as the French farmers refused to co-operate with the manipulators of the wheat deal. The French farmers, the officials said, always sold their produce on the spot, and would enter into contracts with any large syndicate, especially a foreign one. The French crops are in a very critical condition. The home supply, they said, would fall short by 20,000,000 hectoliters, and if the present rainy weather continues the result would be disastrous to the farmers.

## Eastern Wool Markets.

NEW YORK, May 22.—Bradstreet's: The demand for wool is weak and dealers are forced to make concessions in order to secure sales. A slow movement in the goods market is restricting the operations of manufacturers. Dealers consider prices now being paid for wool in the West as too high for the Eastern market. Usually at this time Eastern dealers are well stocked with new wool, but during this year has been on a small scale. Quotations on Ohio and Michigan fleeces are lower. Holders are trying to clean out their stocks of these grades by offering large concessions. The preference for Australian wool is inducing foreign dealers to sell their fine domestic wools at a sacrifice. In Texas, California and Territories but few sales have been made. The condition of the cashmere trade is such that manufacturers are unable to take any of these wools. The poorer grades of Australian are selling at quotations under those ruling last week. Choice foreign wools are still held at former values. Carpet wools are reported quiet and unchanged.

## California Fruits East.

CHICAGO, May 27.—Porter Bros. Co. sold to-day one car of California cherries, Black Tartarians, at \$1.45 to \$2.65. Rockports, \$2.10 to \$2.15.

NEW YORK, May 27.—Porter Bros. Co. of this city report the opening of the market for California fruits for this season. They have received and sold within the past two days 500 boxes of Black Tartarian cherries of very fine quality at prices ranging from \$1.75 to \$2.75 per box of ten pounds.

## Local Markets.

	Buyer Season.	Seller 1891.	Buyer 1891.
Thursday.....	H. L.	H. L.	H. L.
Friday.....	165	164	163
Saturday.....	165	165	165
Monday.....	165	165	165
Tuesday.....	160	160	160

\*After July. †After August.

## Wheat.

	Buyer	Buyer	Buyer	Seller
Thursday.....	h. 168 1/2	167 1/2	167 1/2	167 1/2
Friday.....	h. 168 1/2	167 1/2	167 1/2	167 1/2
Saturday.....	h. 168 1/2	167 1/2	167 1/2	167 1/2
Monday.....	h. 168 1/2	167 1/2	167 1/2	167 1/2
Tuesday.....	h. 168 1/2	167 1/2	167 1/2	167 1/2

\*After August.

BAGS—The market for grain bags is reported unchanged. Ruling quotations for standard-sized hand-sewed bring 7@7 1/2 c.

BARLEY—The sample market has ruled quite strong, with higher prices at the close. In futures, trading on Call has been more active. The following are the reported sales made on to-day's Call:

Morning Session: Seller 1891—300 tons, \$1.12; 100, \$1.11 1/2; 300, \$1.11 1/2; 300, \$1.11 1/2. Buyer 1891, after August 1st—200 tons, \$1.21 1/2 c. Afternoon Session: Spot—200 tons, \$1.65. Buyer 1891—300 tons, \$1.62 1/2; 100, \$1.62 1/2. Buyer season—100 tons, \$1.64. Seller 1891—200 tons, \$1.11 1/2; 200, \$1.11 1/2 c.

BUTTER—Notwithstanding heavy receipts, the market is slightly higher. The output of the creameries and dairies east of the Rocky mountains is said to be less than for the like time in last year. In consequence of this, there are many who look for much better prices later on. The higher prices ruling at the East for cattle are in favor of butter and against oleomargarine-makers.

CHEESE—Receipts continue large, causing a weak and unsatisfactory market.

EGGS—Receipts not up to the demand, which causes a growing market. Prices at the East are against shipments to us, unless our market advances.

FLOUR—The market is steady at unchanged quotations.

WHEAT—The sample market is strong under light supplies and a good demand. In futures, trading has been only fair. It is said that many farmers sold for future delivery their expected surplus. The following are to-day's reported sales on Call:

Morning Session: Seller 1891—100 tons, \$1.62 1/2; 500, \$1.63. Buyer season—100 tons, \$1.76. Buyer 1891, after August 1st—600 tons, \$1.70 1/2 c. Afternoon Session: Buyer 1891, after August 1st—100 tons, \$1.69 1/2; 700, \$1.69 1/2; 100, \$1.70 1/2 c.

## Market Information.

## Produce Receipts.

Receipts of produce at this port for the week ending May 27th, were as follows:

Flour, qr. sks.....	60,373	Middlings, sks.....	3,867
Wheat, cts.....	187,931	Alfalfa.....	70
Barley.....	31,015	Chicory, bbls.....	70
Rye.....	801	Broomcorn bbls.....	92
Oats.....	11,627	Hops, bbls.....	30
Corn.....	5,858	Wool.....	2,776
*Butter.....	1,867	Hay, tons.....	1,639
do bxs.....	748	Straw.....	97
do bbls.....	748	Wine, gals.....	368,250
do kegs.....	748	Brandy.....	18,180
do tubs.....	748	Raisins, bxs.....	3,370
do bxs.....	383	Honey, cs.....	...
†Cheese, cts.....	1,344	Walnuts, sks.....	...
do bxs.....	49	Flaxseed.....	...
Eggs, doz.....	54,640	Mustard.....	...
do "Eastern.....	57,400	Almonds.....	...
Beans, cts.....	8,671	Peanuts.....	198
Potatoes, sks.....	16,868	Popcorn.....	...
Onions.....	5,120	Beet sugar, bbls.....	...
Bran.....	12,532	do do sks.....	...
Buckwheat.....	...	...	...

\*Overland 38 cts. †Overland.... cts.

## First Consignments New Crop Wheat.

The following shows the first arrivals of new wheat and prices paid for the same:

Year	Month	Price.
1859.....	July 14.....	\$1 90@2 00
1860.....	July 3.....	1 50@1 65
1861.....	July 24.....	1 50@1 62
1862.....	July 11.....	1 62@1 66
1863.....	June 26.....	1 60@1 60
1864.....	June 9.....	2 20@2 25
1865.....	June 12.....	2 20@2 25
1866.....	June 25.....	1 60@1 80
1867.....	June 17.....	1 65@1 70
1868.....	June 18.....	1 90@2 00
1869.....	June 19.....	1 40@1 45
1870.....	June 20.....	1 70@1 80
1871.....	June 23.....	2 30@2 37
1872.....	June 10.....	1 80@1 85
1873.....	June 7 (Valljo).....	1 75@1 80
1874.....	June 11.....	1 65@1 67
1875.....	June 2 (Valljo).....	1 65@1 67
1876.....	June 9 (Oakland).....	1 75@1 80
1877.....	June 2 (Valljo).....	1 40@1 45
1878.....	June 13.....	2 70@2 80
1879.....	June 20.....	1 65@1 67
1880.....	June 24.....	1 00@1 05
1881.....	June 7.....	1 25@1 40
1882.....	June 6.....	1 67@1 70
1883.....	June 19.....	1 65@1 70
1884.....	June 20 (Port Costa).....	1 42@1 45
1885.....	June 2.....	1 42@1 45
1886.....	June 6.....	1 30@1 35
1887.....	June 10 (Port Costa).....	1 75@1 80
1888.....	June 15 (Wheatport).....	1 31@1 35
1889.....	May 24.....	1 37@1 40
1890.....	May 20.....	1 30@1 35
1891.....	May 24.....	12 02@1 25

\*Inferior.

†Sold by auction at a fancy price, actually worth, by sample, about \$1.65. It was Sonora, rather pinched and somewhat mixed with barley. It came from the Kimberlin farm, Kern Co. Last year's first consignment also came from Kern Co.

## Cereals.

The local wheat market held to strong prices throughout the week. Obtainable supplies have dwindled to the smallest possible proportions. The carry-over into the season of 1891-92 will be the lightest for years materially, offsetting our very large crop. Cool, fairly cloudy weather has contributed no little in bringing this year's crop to larger proportions. Many localities, which had calculated on a very small outturn, if not a failure, now report they will have a third to over half, while other localities have been very nearly, if not fully, as well benefited. Oregon and Washington advices received the past week are more encouraging. East of the Cascades our information is confirmatory that in the more favored sections the plant has a strong, healthy growth, while the heads are filling out well. We are not advised whether the plant stood out well. The average yield to the acre will be less than last year's. In the Willamette valley the crop is promising favorable. The Agricultural Department, Washington City, reports the general outlook for crops east of the Rocky mountains favorable for a full average, which, if realized, will give this country a total yield of about 600,000,000 bushels. The large increase over the crop of 1890 will be more

than offset by a European shortage, without taking the largely reduced carry-over into consideration. What we now want is tonnage to move our surplus crop, for the ship may try and keep vessels from coming here to keep charters up. High tariff is somewhat against ships coming.

Barley holds strong under light obtainable supplies and large consumption. Cool weather retards the maturing crop. With warm, forcing weather, new would be offering quite freely. There is a prevailing opinion that the berry will be largely off color, which, if the case, will cause bright brewing grades to fetch better prices. Eastern Oregon and Eastern Washington advices report from poor to fair for this year's crop. The want of rain is said to have injured the late sown.

Oats are strong at full figures. The supply is light. Crop advices from the Willamette valley, Oregon, report the outlook favorable for a large yield.

Corn is slightly higher. The high prices restrict the demand. Crop advices are favorable, with a larger acreage planted.

Rye is weak, under free supplies. Advices from Oregon report that in some localities in the Willamette valley the plant is seven feet high.

## Feedstuff.

Ground feed is strong under a good demand and light obtainable supplies. Bran, middlings, cowfeed, and roll barley are selling at an advance.

Poor uncured hay is being put on the market which has to be sold on receipt. Rains to-day unless followed by dry weather will do considerable damage. Advices from Oregon report that west of the Cascades the crop will be very large, but east of the Cascades it will be light or, at least, only fair. In this city dealers state that the outlook is favorable for good prices, and that well cured new hay will fetch nearly as much as is now quoted for old.

## Live-stock.

The market does not show any material change, supplies and demands being about equal. Nevada advices report surplus bullocks about cleaned up, and for what are left, Chicago pays more than we. The market for dressed cattle is quoted as follows to obtain the price on foot, take off from the price for stall-fed one-third to one-half, according to the nature of the feed and time fed; and for grass-fed take off the price from 40 to 60 per cent:

HOGS—On foot, light grain fed, 5@5 1/2 c lb. dressed, —@—c lb. heavy, 4@4 1/2 c lb. dressed, —@—c lb. Stock hogs, 4@4 1/2 c lb. BEEF—Stall fed, 6@6 1/2 c lb.; grass fed, extra, 6@6 1/2 c lb.; first quality, 5 1/2 c lb.; second quality 5@5 1/2 c lb.; third quality, 4@4 1/2 c lb.; bulls and thin cows, 2@2 1/2 c lb. VEAL—Small, 6@7 1/2 c lb.; large, 5@6 1/2 c lb. MUTTON—Wethers, 7@8 c lb.; ewes, 7@7 1/2 c lb.; spring lamb, 7@8 c lb.

## Fruits.

Eastern fruit crop advices are rather conflicting, but the general tenor of advices indicate that the yield while more than in 1890 will be considerably less than was estimated a short time ago. Frosts in the northern Central states are said to have damaged the crop. It now looks as if our orchardists, who do not hold too long, will get good prices for their product. Oregon advices report a promising outturn east of the Cascades but poor west of the Cascades owing to blight.

Rains last night and to-day (Wednesday) will it is feared do considerable damage to berries and also to cherries.

The receipts of cherries are increasing, with canners busy packing. The overland shipments continue large. Shipments of apricots to the east are on a liberal scale. Green apples are hard to place. Raspberries and blackberries come in sparingly. Strawberries are in liberal receipt. Currants are making a fair showing. Canners have made large contracts for the latter.

Dried fruits are cleaning up slow. Fresh fruits interfere with the distributive demand. Driers who did not sell early in the season have lost heavily; experience has taught old hands at the business to strike while the iron is hot, or, in other words, when buyers are anxious, sell.

Raisins continue to come to hand. The crop last year was about 2,250,000 boxes. Slightly more than we estimated.

## Vegetables.

Garden truck is essentially unchanged, so far as rhubarb, asparagus, etc., are concerned, but lower for beans, peas, cucumber, summer squash and tomatoes. Canners are running on peas, and will soon start on beans.

New onions are in free receipt. The quality shows improvement. There are good buyers for well matured, suitable to fill distant orders.

Old potatoes drag. New are coming in quite freely, with quality improving. Overland shipments are still in order.

## Miscellaneous.

Poultry under fair receipts, more vegetables, and fruits are weak and lower.

Wool is quiet but firm. Free receipts give good assortments for buyers. For choice desirable grades a slight advance is obtainable.

From reliable advices up to May 27th the following summary of tonnage movement is compiled:

	1891.	1890.
On the way to		
San Francisco.....	334,547	206,848
San Diego.....	17,111	14,898
San Pedro.....	13,019	11,259
Oregon.....	33,574	23,197
Puget Sound.....	33,276	20,033

Totals.....431,467 276,225

In port at

San Francisco, disengaged.....	9,366	8,384
" engaged for wheat.....	38,669	33,165
" for new crop.....	10,904	...
San Diego.....	2,581	...
San Pedro.....	14,990	...
Columbia River.....	11,461	...
Puget Sound.....	...	...

Totals.....73,281 56,468

To get the carrying capacity, add 65 per cent to the registered tons as given above.

From July 1, 1890, to May 21, 1891, the following are the exports from this port: 1891. 1890.

Wheat, cts.....12,657,960 12,602,650

Flour, bbls.....1,088,837 1,027,506

Barley.....256,053 935,369

Hops are unchanged. Supplies are light. Reports of vines in Oregon and Washington being infested with hop lice cause growers to be firmer in their views. European and Eastern crop advices are conflicting.

Beans are moving off slowly. All advices at hand are confirmatory of a large increased acreage planted in this State, and the crop is doing finely.

Money is coming in slowly, causing quotations to be more or less nominal. The new crop yield will be large and quality good.

## Domestic Produce.

Extra choices in good packages fetch an advance on top quotations, while very poor grades sell less than the lower quotations. WEDNESDAY, May 27, 1891.

BEANS AND PEAS.	NUTS—JOBBER.
Bayo, cts.....	Walnuts, Cal. lb.....
Butter.....	do "do.....
Peas.....	do paper shell.....
Red.....	do Chili.....
Pink.....	Almonds, bd ahl.....
Small White.....	Softshell.....
Lima.....	Paper shell.....
Field Peas, bk eye.....	Brazil.....
do green.....	Pecans small.....
do Eastern do.....	do large.....
do Niles.....	Peanuts.....
Split.....	Hickory.....
	Chestnuts.....
	do.....

CHICORY.....

DAIRY PRODUCE, ETC.

Cal. Poor to fair, lb.....

do good to choice.....

do Creamery.....



[Furnished for publication in this paper by officer in charge of branch Signal office, Division of the Pacific.

EXPLANATION. Cl. for clear; Cy, cloudy; Fr., fair; Cm., calm; - indicates too small to measure. Temperature wind and weather at 5 p. m. (Pacific Standard time) with amount of rainfall in the preceding 24 hours. T indicates trace of rainfall. P C, partly cloudy. Rn., rain.

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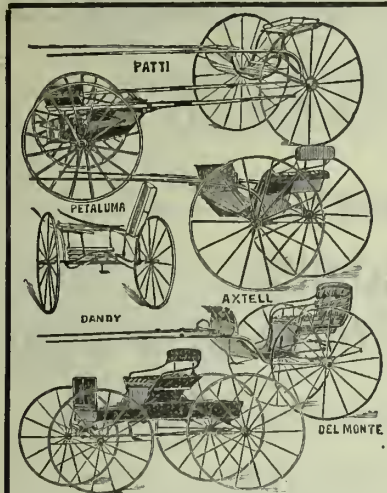




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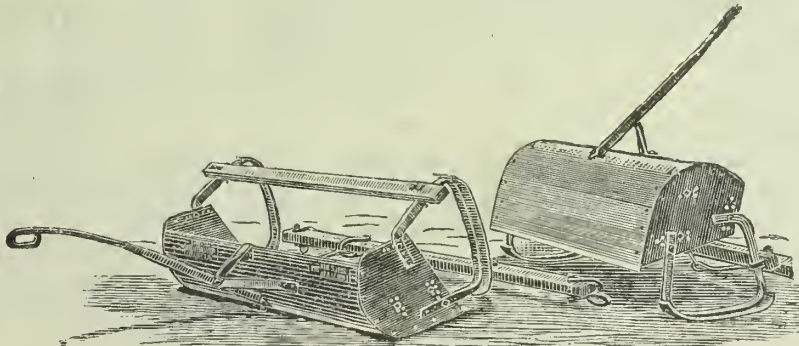
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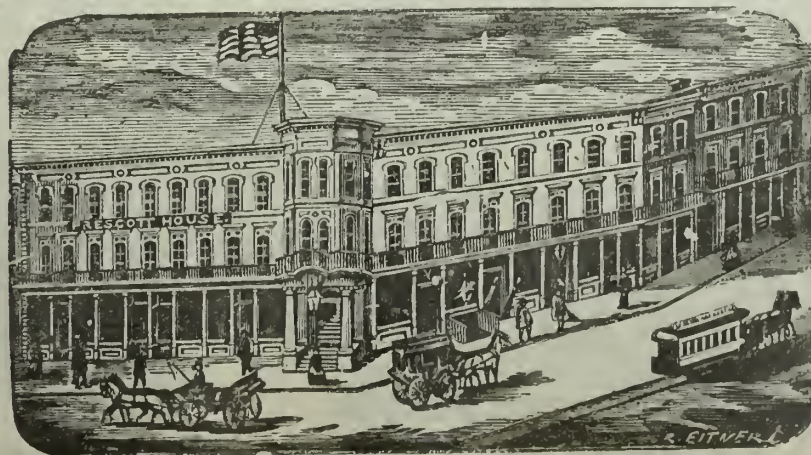
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6,268 sold in '90  
20,000 will be sold in '91

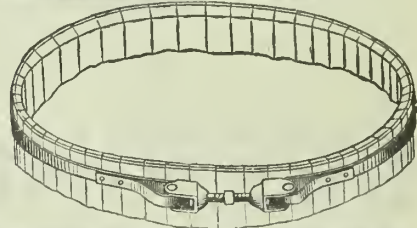
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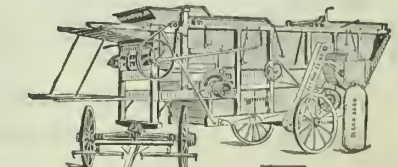
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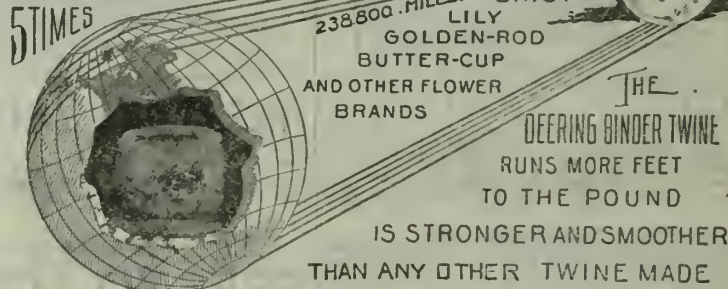
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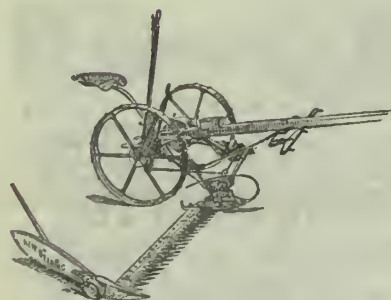
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# PACIFIC RURAL PRESS

Vol. XLI.—No. 23.

SAN FRANCISCO, SATURDAY, JUNE 6, 1891.

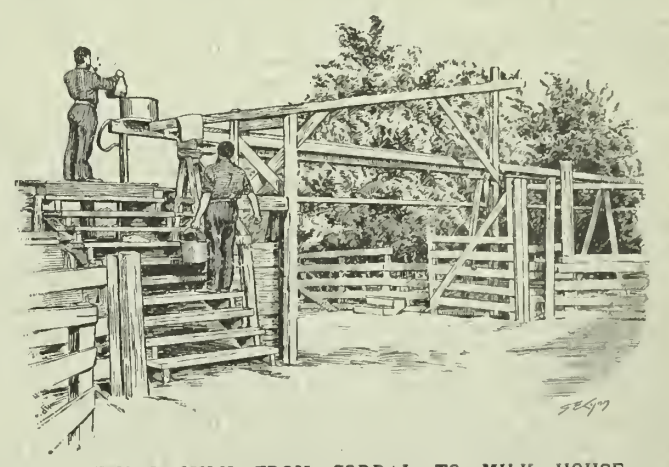
DEWEY & CO., Publishers,  
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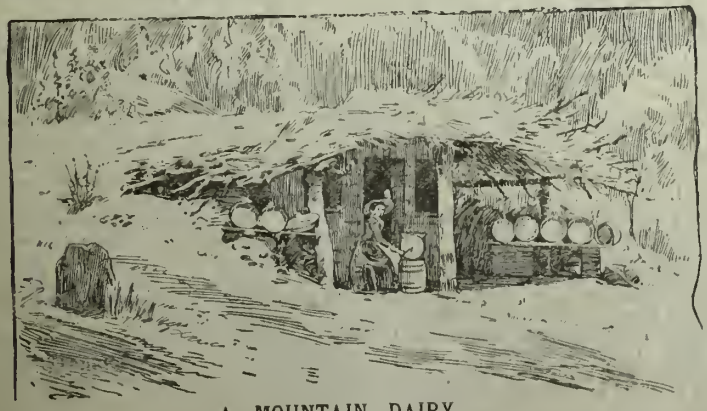
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SCENES IN A COAST DAIRY REGION.



FLUMING MILK FROM CORRAL TO MILK HOUSE.



A MOUNTAIN DAIRY.



ROADWAY VIEW IN A DAIRY DISTRICT.



## CORRESPONDENCE.

Correspondents are alone responsible for their opinions.

## The Situation in Agriculture.

EDITORS PRESS:—In an article of mine recently published in the RURAL PRESS, I endeavored to show our farmers that whatever may be the cause of the present unsatisfactory state of the great farming industry, it surely had not been brought about by over taxation of farmers. By which I meant, that in the collection of revenue for the support of our government, the farmer class had not been discriminated against, but that while the present method of obtaining the national revenue is extremely unequal, that yet it seemed to me very clear that the agricultural class paid less of this large sum than they would pay if an equal assessment were made upon the property of the country, and the tax were collected from each person in proportion to his possession of property.

I repeat, that it is hopeless to expect to remedy our grievances until we clearly understand what has produced them. Well, what has produced them?

I answer, that the extortions of the great transportation companies are undoubtedly responsible in a measure for the low condition of our class, from one end of the country to the other, and nearly all classes of our people are aggrieved in the same way. As to the remedy for this grievance, I will venture only this suggestion. I do not claim to be either a lawyer or a statesman, but it is quite plain that the great abuse of which we complain cannot be fully reached and removed by the States acting each in its individual capacity and separately. It must be accomplished by the Congress of the United States either by enlarging the powers of the present Interstate Commerce Commission, or by some similar means. Some national authority must fix the rate to be charged for freight of all sorts upon at least all the leading railroads of the country, so that while the roads may earn a moderate profit upon the actual capital employed, the people shall have their business done at a fair rate. I rejoice in the hope that the present uprising of farmers and others is likely to be concentrated upon this great "reform," and I believe the desired result may be accomplished, without the ultra measure of confiscating, or otherwise taking possession of the roads by the government.

But while it is indisputable that over charges of the railroads have been a decided influence in curtailing the profits of agriculture, yet it certainly is not the only nor the greatest factor or cause which has steadily, and for several years, reduced the business of farming from one of profit, to one that scarcely pays expenses.

What is the all-pervading cause that has wrought out so stealthily all our woes. It can be expressed in one word—overproduction.

The natural result of overproduction is the reduction of prices, and this is true of all productive industries—agriculture as well as of all mechanical and manufacturing enterprises. But when the manufacturer perceives that his wares are accumulating beyond the demand for them, he can, and does "call a halt," so to speak, and temporarily engages in some other pursuit until circumstances favor a safe return to his old work again. But not so the farmer. His profits are small at best, and he must keep right on nearly in the same old line, and the lower the prices he obtains the more he must produce, and this only still more depresses prices! And so things have gone on from worse to worse until we are suffering from overproduction in almost all lines of our calling.

A careful examination of the national census returns for the last 40 or 50 years will clearly disclose the slow but sure process by which American agriculture has been reduced from general prosperity to general unthrift, and in many cases even worse.

The census returns show that the number of farms under cultivation have steadily increased faster than has the number of our people. Thus, the population of the whole country increased from 1850 to 1890 only about 175 per cent, while the number of farms have increased during the same period fully 260 per cent.

During this period of 40 years the number of cattle increased nearly 200 per cent, the quantity of corn grown about 260 per cent, wheat nearly 400 per cent, etc., etc., all other products in about the same ratio.

Surely we need not look further for the causes which have produced the general low prices of our products. There are not people enough to consume them! Neither is it at all strange that just this state of things has come to pass. The liberal land laws of our country and the ease with which millions of these lands could be brought under cultivation proved so inviting to settlers both native and foreign, that the increase in the number of farms and acres kept steadily in advance of the increase of population; and this plethora of products would have been developed much sooner, but for the beneficent working of the revenue policy of our Government which encouraged so many of our people to engage in other than agricultural pursuits, and so become consumers instead of producers of the fruits of the soil.

That overproduction has really produced the present depression in prices can be fully verified.

There now lies before me an elaborate series of tables prepared by that able statistician, C. Wood Davis, in which the steady but sure increase of production has advanced beyond the demand for it, and beyond the capacity of our people to consume.

In the year 1890 our population numbered less than 63,000,000, while the products of our farms were sufficient to support from 6,000,000 to 10,000,000 more. Of beef we had enough for 71,000,000 of people; of pork for 76,000,000; of corn for quite as many, and of oats we grew enough for a population of 100,000,000, and so on through the whole list.

I cannot ask space here to even suggest a remedy for this state of things. In a future paper I may have something to say about it, but I fear that an increase of money, whether of coin or paper, would not remove the evils of the present situation.

JAMES SHINN.

Niles, April 25th, 1891.

## THE APIARY.

## Honey Prospect for 1891.

EDITORS PRESS:—Bees have done remarkably well so far this season. The honey obtained has been lighter in color, and better in quality than is generally gathered at this season of the year; this is no doubt owing to our moderately cool weather we have had this spring.

All bloom has been considerably later than usual, and, as a natural consequence, bees have had more of a chance to work on it.

It is too early yet to give any definite answer as to what sort of a crop we shall have; but all indications are exceedingly favorable for a large crop, especially in this part of California. Early in the season the manzanitas furnished quite an amount of nectar, and all colonies built up rapidly, and several entered the surplus boxes. The fruit bloom was also very heavy; but as we had a rainstorm for a week in the light of the fruit bloom the bees did not gather as much as usual from this source. In certain seasons the apple tree is a great yielder of honey; but the honey is not extra light in color, although it makes it up in flavor, as it retains that exquisite apple aroma. Apple honey, after once tried, I do not think will go begging for a market.

At present, bees are working on California lilac, white clover, locust, and numerous wild flowers.

I noticed early in the season that the bees worked well on the bloom of the black oaks in our vicinity; but whether they obtained much honey from this source, I am unable to state.

Our swarming season is about over here, and bees have settled down to business in the surplus boxes.

One day here, after a continued rainstorm, five first swarms came out, and all settled together, making a mass of bees as large as a good-sized barrel. I divided them up into equal swarms, as near as possible, and bived them, giving each swarm a frame of unsealed brood. They all stayed in until the next forenoon, when they all swarmed out and united again. I tiered three ordinary hives up, and placed them in it and left them alone. A few days ago I examined them and found that they had all available space filled with brood, bees, honey and comb. Such immense colonies as this work very well for a time, but in a few months they will dwindle down to the size of an ordinary colony.

Unsealed brood will not always hold a colony in a bive; of this I have had abundant proof. I have even known young swarms to stay in the line until they had the hive two-thirds filled with comb and honey, and then leave, every solitary bee in the bive going off.

Some persons may perhaps exclaim: "Well, your hives were not properly ventilated and shaded, and that accounts for it."

Yes, my hives are well shaded, and sufficient ventilation is given, but when a colony becomes dissatisfied, it is almost impossible to make them stay, unless you cage the queen, and then, perchance, three-fourths of the bees will leave and go to the parent colony.

It does not do to leave bees hang out very long after swarming in a location like mine, as hollow trees and other available homes are too abundant for bees. The sooner they are bived the better, and after you have most of them in, they should be moved quite a distance from where they clustered, because the scouts that have gone abroad to seek a home, would soon return and lead them away.

It frequently happens in a large apiary for strange swarms to come there. This is, no doubt, owing to the leaders of the swarm getting on, or crossing one of the "lines of flight" of a large apiary and coming home with the returning bees.

After an extended trial, I am completely satisfied that a cross between an Italian and Carniolan race of bees is the best. Of course, I find them a trifle more irritable than either race in their purity, but still this is of little moment compared with their other good qualities.

Come with me now and we will open a colony of my favorite bees. We raise the bive cover gently, blow a few puffs of smoke in over the sections. What beautiful, snowy white combs, you exclaim; and the honey, how evenly and whitely it is capped; what an evenness obar-

acterizes all their work, and what beautiful bees! They all show more or less yellow bands and several extremely broad bands of white. How fixed and naturally they hang to the combs when examining them! Note the abundance of brood, the immense number of bees and the cleanliness of their hive inside. Ah yes, here is the queen—a large, reddish-gold bee with bright, silvery-colored wings. She does not seem in the least bit disconcerted or excited by the opening of the bive and the handling of the frames. You see the bees continue to work even while we handle the sections and frames. Now we arrange everything in proper order again; the bive is closed up—not a single sting and not a solitary bee killed.

You ask why not raise queens from such choice stock and have them all alike. Well, the fact is, I do try to, but it is an utter impossibility to make queens duplicate themselves. Possibly you will get two out of ten queens that will somewhat equal the mother. Hybrid queens, generally speaking, are larger than the full-blooded bees and are more prolific.

Some apiarists speak of queens being too prolific, but I have yet to find the first one that I thought was too prolific—the more prolific a queen is, the more bees there are; and the more bees there are in a hive, the more honey will be stored.

The practice of clipping the queen's wing, I do not believe in. I am aware that I am stepping on some apiarists' toes by making such an assertion, but if they can prove to me that I am wrong, well and good; I should be pleased to receive their proof. Now, a few facts in regard to clipping queens' wings: In an apiary where this method is practiced, there is always quite a loss of queens, and especially so, if the hives are close together and elevated from the ground some distance. If the hives set close to the ground, possibly they will return to their own bive again. If you are not on hand to watch all swarms, there is great danger of their entering the wrong bive and getting killed. Sometimes after the bees have made frequent attempts to swarm, and are unsuccessful, they will kill their queen with a clipped wing and raise another in her stead, so that the swarming fever can be gratified.

If the ground around an apiary is infected with ants, it is an exceedingly dangerous practice to clip queens' wings. If you are constantly on hand, all right; if not, you stand very favorable chances of losing a queen. All things considered, I think that there is more disadvantages than advantages in clipping the queen's wing.

S. L. WATKINS.

Grizzly Flats, Cal.

## POULTRY YARD.

## Poultry in Tulare County.

After having had several years experience in raising and handling poultry, I wish to say that right here in Tulare county there are more natural advantages for raising and caring for poultry than in most places. It is the home of the turkey, and in fact I think all will agree with me when I say a paradise for poultry of all kinds. Our market is good for both poultry and eggs—so good, in fact, that the eastern dealers are making it very profitable sending in carload after carload of both every month in the year.

In view of these facts would it not be worth while to take a little more pains with our poultry and see to it that the fowls have plenty of food and water and their houses and yards are kept clean? These are the most important features of the poultry department. All know that a dozen hens well cared for, will bring in more ready money each year than any other investment of like amount. Then why neglect that which you know pays the best? I have paid from \$50 to \$200 for a lot of turkeys which had never cost the owners anything but a little time. Again, I have heard more than one farmer say that the net income from his poultry amounted to more than his 160-acre wheat field.

Here in Tulare the average price for turkeys is from 10 to 12 1/2 cents per pound, live weight, and chickens sell according to quality. Right here I will say that the eastern chickens bring a higher price in the San Francisco market than our own. Some of you perhaps may not have been aware of this, but it is so. And why? Because they are larger and in better condition. The time is at hand for us to see to it, and not let these eastern dealers take our market from us, while they are fast doing and will continue to do so long as we let them exult in quality. We can overcome this only by getting the very best breeds for market, such as the Cochin, Brahma, Plymouth Rock, or Langshan. You may say that the smaller kinds, such as the Leghorn, Black Spanish, Hamburg, or even the mixed breeds are the most profitable as layers. Well, if you are keeping hens for eggs only, perhaps you are right, but if you wish to raise chickens for market, the larger they are the better price you will get for them. If you want to raise both poultry and eggs, I would suggest separate poultry yards; but if you cannot do this, the next best thing to do is to get the best kind for all purposes, which in my judgment is Plymouth Rock or the Wyandotte.

We can hardly expect to compete with our eastern friends by letting our poultry run wild

and giving them no attention whatever. A few years ago I had a farm near Plano, in this county. I kept 100 hens and a strict account for one year. At the end of that time I found that they had netted me over \$250, and I have no doubt but with a little care anyone can do as well or better than that. With our mild climate and evergreen fields and the best market in the United States, it does seem as if the poultry branch of farming is sadly neglected.—J. F. VANSKIVER in Central Californian.

## THE STOCK YARD.

## Pacific Slope Grasses.

Of the 103 different kinds of grasses not known to the writer to exist in Montana many are especially valuable to our stock industry. It was these native grasses that sustained the innumerable multitudes of buffalo that ranged over our plains and mountains and grew fat. Some of our most prominent native grasses are the following:

1. "Blue joint," or "blue stem," or "wheat grass" (*Agropyrum glaucum*). It is readily distinguished by its rich and thrifty appearance and a bluish, glaucous hue, somewhat like the hue on a cabbage leaf. It does not tend to bunch itself and is not one of the "bunch grasses" of which we hear so much. It loves meadows or plains and tends to form a continuous sod of rich fodder, yielding under favorable conditions three tons to the acre. It seldom, under the severest trials and difficulties, yields less than one ton to the acre. These statements apply to native sod and not to cultivation, which would very heavily increase the yield. Prof. Scribner says: "Its quality is unsurpassed," and the same opinion of its value is held by stockmen in Nebraska, Colorado, New Mexico, and, indeed, in all our Rocky Mountain region. This grass grows abundantly all over our valleys about Helena. The region about Fort Benson is especially mentioned by Hon. Geo. Vasey in a Government report. There are several different kinds of these agropyms and all of them are valuable forage plants; some would well repay cultivation.

2. Another abundant grass is sadly too well known by ranchmen and stockmen by the common names of "fox tail" and "squirrel grass" (*Hordeum jubatum*). It grows rather short and belongs to the barley family. The spikes, when young and green, have very long bristles which give it a very marked characterization. Everybody in Montana is acquainted with it, alas, to their sorrow. If the grass be cut while the flowers are yet in bud, the bristles are easily managed by horses and cattle, but if left till the seeds are ripening the bristles become very dangerous to animals which are forced to eat it in hay. It is a perfect curse wherever it grows, and it is capable of growing everywhere. I do not believe any animal eats it, if left to choose what to eat. This comes not because the leaves and stems are distasteful, but because the long bristles are so difficult to manage. The sooner this weed can be eradicated the better for all concerned. Plowing under is the only remedy.

3. "Slough grass" (*Beckmannia erucaeformis*). This grass loves the damp meadows. It grows from six inches to three feet in height, surmounted by a panicle of spikelets crowded together in such fashion as once seen is never to be forgotten. It is a widely-spread grass growing in spots from the Mississippi river westward to the Pacific ocean. It forms a profitable crop for damp meadows and its ripe spikes cause no injury to cattle. Without careful pictures it is difficult to describe these grasses so as to be understood except by the professional botanist.

4. "Cord grass," "marsh grass" (*Spartina cynosuroides*). It grows abundantly in meadows near Helena. Its height from two to six feet. It is a stiff, coarse, reed-like grass, and is never eaten by stock. In the Mississippi valley it has been utilized by being made into paper.

5. "Reed canary grass" (*Phalaris arundinacea*) bears a good reputation, notwithstanding it is a coarse grass. Its spikes of seed are very rich and much enjoyed by horses and cattle. It is found from New England to the Pacific, and also in Northern Europe.

6. "Grama grass" (*Bouteloua oligostachya*). Its home is from the Saskatchewan to Texas, Mexico and Southern California, and everywhere it is prized as the richest kind of feed for cattle. Montana is blessed with a fine supply on all our hills and plains and parks. In regions farther south it goes by the name of "merquite," and some call it buffalo grass, a name very inappropriate, for the true buffalo grass is a very different kind of grass and probably does not grow in any abundance in Montana, surely not within reach of a radius of 30 miles around Helena and Great Falls, for neither Mr. Anderson nor myself has ever seen it growing wild in Montana.

This grama grass does not grow tall enough for profitable culture, reaching scarcely 20 inches, but is everywhere esteemed our richest native fodder. Sheep, after several years of feeding upon it, kill it out. Cattle fatten upon it with remarkable rapidity. Between Helena and East Helena and Alhambra Springs this is one of the prominent native grasses. If the



seed were gathered and planted on our bench lands, and soils above easy irrigation, this grass gives promise of very profitable cultivation where no other crop could be raised and no other hay could be cultivated. Is it not strange that so much pains should be taken to cultivate timothy and other introduced grasses when we have native grasses at our very door already acclimated and used to our drouths? Here is a rich grass, growing spontaneously and luxuriantly where no irrigation can be had, inviting us most persuasively to cultivate it, and yet farmers keep on cultivating foreign plants, ill-adapted for our peculiar region—just because they did so "back East." To any farmer or ranchman who is interested in this grass but does not know it by name, I shall, on application by mail and return postage, be glad to send a specimen of it for identification.

7. In our high mountain meadows and parks we find a "mountainous timothy," or *Alopecurus pratensis*, var., *Alpestris*. Its reputation as valuable feed and hay is very high, and where found is much prized. In similar situations we have a true native timothy, besides the tame timothy run wild from seed dropped by miners and prospectors and railroad builders. The scientific names for our true timothy are *Phleum alpinum*, L., and *Phleum pratense*, L.

8. "Needle and thread grass," "needle grass," "porcupine grass" (*Stipa comata*, *Spartea* and *Viridula*). Prof. Scribner reports also *Stipa Richardsoni*. These stipas are peculiar in their seeds, accompanied with a long awn from four to six inches, which is twisted just above the seed into several gimlet twists and serve the purpose also of a gimlet. *Stipa spartea* is a very obnoxious grass having the common name of "The Devil's Darning Needle," which one deems quite appropriate after he has suffered from their getting into his flesh, having worked their way through pantaloons and bootlegs. Horses and cattle are put to severe torture from these awns working their way into the flesh and causing a festering wound. Hon. Warren Upham, in the celebrated "Catalogue of the Flora Minnesota," says: "The grain is prolonged into a stout callus or base, needle-like in sharpness, and above in a long twisted awn, both of which are minutely barbed so that when in the wool of sheep or in men's clothing the seed works forward readily but not backward. Within a few weeks later these seeds are found to have bored into the hard, dry, clayey soil of the prairie to a depth of two or three inches, having been pushed or impelled in some way by means of the awn."

These grasses are a portion of our bunch grasses and very abundant on our hillsides and low mountains. Some of the mountains at the entrance to Prickly canyon are covered with this kind of grass. The only objection to it is this troublesome seed and awn; otherwise it is a highly valuable and nutritious grass. In early years Mt. Helena had an abundance of them; a few are still to be found there.

9. We have also as bunch grass, several species of mountain rice, called *Oryzopsis cuspidata* and *Oryzopsis micrantha*. Cattle and horses love both kinds. The whole plant clear down to the ground is eagerly devoured. These must be inestimable plants for cultivation in Montana. They grow in their native places from one to three feet high. Several species of "bent grass," or "red top," so famous in the East, are to be found native in Montana, as also the pods, one of which is identical with the celebrated Kentucky blue grass and just as valuable. "June grass," or *Kelaria cristata*, is very abundant and very valuable. "Eaton's grass" (*Eatonia obtusata*, var. *Robusta*) is a good grass of Southern Montana, and extending in fair abundance to Helena. I have gathered splendid specimens at Blue Cloud. Wild rye grows in profusion near water or on low meadows, and is sadly afflicted with a severe fungus, called ergot. I have sometimes thought that the fields near the fair grounds could supply the nation with ergot.

These are but a very few of our numerous grasses. Montana is no dry and dreary waste of desert. Few lands can show such a variety in grasses or greater value in her species. From three to five acres of our native grasses are sufficient to support a horse or ox for a year; one acre supports a sheep. Some people tell us our grazing industry has reached its limit, whereas the fact is we have but begun. — From lecture by F. D. Kelsey, Sec. D.

A RAILROAD ON TREE TOPS.—It may not be known outside of the neighborhood in which it is situated, but it is nevertheless a fact that in Sonoma county, Cal., there exists an original and successful piece of railroad engineering and building that is not to be found in the books. In the upper part of the county named, near the coast, may be seen an actual railroad bed on tree tops. Between the Clipper Mill and Stuart Point, where the road crosses a deep ravine, the trees are sawed off on a level with the surrounding hills, and the timbers and ties laid on the stumps. In the center of the ravine mentioned, two huge redwood trees, side by side, form a substantial support. These giants have been lopped off 75 feet above the bed of the creek. This natural tree bridge is considered one of the wonders of the Golden State, and for safety and security far exceeds a bridge framed in the most scientific manner.

THE GRIPPE in London is attacking the horses.

## AGRICULTURAL ENGINEER

### The New Road Law.

In response to a quite general demand on the part of our readers for the new road law, we give the following transcript, prepared by the Santa Rosa Republican. The sections as amended are as follows:

2641. The Boards of Supervisors of the several counties shall divide their respective counties into suitable road districts, and may change the boundaries thereof, and each supervisor shall be ex-officio road commissioner of the several road districts in his supervisor district, and shall see that all contracts made with, and all orders of the Board of Supervisors pertaining to the roads and bridges in his district are properly executed; provided, when in any county the members of the Board of Supervisors thereof are not elected by districts, it shall be the duty of such Board, by proper order, to be entered in its records, to divide such county into supervisor districts, to correspond with the number of members of such Board, and assign to each member thereof one of such districts, of which he shall be such Road Commissioner.

2642. From and after Monday following the first day of January, A. D., eighteen hundred and ninety-three, the office of Road Overseer shall be abolished; provided, that whenever in this Code the words Road Overseer occur, they shall be taken and construed so as to read Road Commissioner.

2643. The Boards of Supervisors of the several counties of the State shall have general supervision over the roads within their respective counties. They must, by proper ordinance:

1. Cause to be surveyed, viewed, laid out, recorded, opened and worked such highways as are necessary to public convenience, as in this chapter provided.

2. Cause to be recorded as highways such roads as have become such by usage or abandonment to the public. Also, all such streets and roads as have been or may be declared such under section seventeen hundred and sixty-four of the Code of Civil Procedure.

3. Abolish or abandon such as are not necessary.

4. Contract, agree for, purchase, or otherwise acquire the right of way over private property for the use of public highways, and for that purpose institute or require the district attorney to institute proceedings under title seven, part three, of the Code of Civil Procedure, and to pay therefor from the district road fund of the particular district.

5. At the first regular meeting in January, eighteen hundred and ninety-three, and at any regular meeting thereafter, advertise for sealed bids for keeping in order, and repair all such roads, culverts and bridges in the county, as hereinafter provided; provided, that, the Board of Supervisors, in their discretion, may exclude from such contracts the repairing of any or all bridges.

6. In case no bids for contracts are received or accepted for work in any district, the Board shall order the work to be performed by the Road Commissioner of said district, as provided for in section twenty-six hundred and forty-five of this Code.

7. If any contractor neglects or fails to perform any work provided for in his contract, the road commissioner of the district in which such neglect or failure occurs shall notify such contractor to immediately make such repairs or do such work as is needed; and if the contractor does not use reasonable diligence in complying with such notice, the Road Commissioner shall cause such work to be done by others, and the cost of such work shall be deducted from the quarterly allowances of such contractor.

8. The Road Commissioner, in all the road districts in his supervisor district, shall inspect the work done under such contracts and orders and make a written report thereon to the Board in January, April, July and October of each year, which report shall include the amount and kind of work ordered done by him during the preceding quarter, under the provisions of subdivision seven of this section. The Board shall thereupon cause the amount found due the contractor for the preceding quarter, less such sums as the Road Commissioner may have necessarily spent by reason of the neglect of such road contractor, to be paid to such contractor, from the funds of the road district embraced in his contract.

9. The Board shall cause to be kept a book showing the number of sections in each district, their boundaries, length of roads in miles and fractions of miles, names of contractors, amounts of contract, and the cost of maintaining the several sections of road in each district.

10. Levy a property tax for road purposes.

11. In their discretion, cause to be erected and maintained, on the highways they may designate, mile stones or posts, or guide posts, and guide posts properly inscribed.

12. Cause the road-tax collected each year to be apportioned to the several road districts entitled thereto, and kept by the treasurer in separate funds.

13. Audit all claims on the fund of the respective road districts, when required to pay for improvement thereon.

14. In their discretion, they may provide

for the establishment of gates on the public highways, in certain cases, to avoid the necessity of building road fences, and prescribe rules and regulations for closing the same, and penalties for violating said rules; provided, that the expense for the erection and maintenance of such gates shall, in all cases, be borne by the party or parties for whose immediate benefit the same shall be ordered.

15. For the purpose of watering roads in any part of the county, the supervisors may erect, maintain waterworks, and for such purpose may purchase or lease real or personal property. The cost for such waterworks and the watering of said roads may be charged to the general county fund, the general road fund and the district fund of the district or districts benefited thereby.

2644. This section is hereby repealed.

2645. The Road Commissioner, under the direction and pursuant to the orders of the Board of Supervisors, must:

1. Take charge of the highways within their respective districts, and have with the consent and approval of the Board of Supervisors shall employ all men, teams, watering carts and all help necessary to do the work in their respective districts, provided that no Road Commissioner shall be interested, directly or indirectly, in any contract or work to be done in the road districts under his charge and control.

2. Keep them clear from obstructions and in good repair, and destroy or cause to be destroyed, in the months of July and August of each year, all thistles, Mexican cockleburrs, or cockleburrs of any kind, and all noxious weeds growing or being on any portion of the public highways or public roads in their respective districts, provided that there be no contract to that effect.

3. Cause banks to be graded, bridges and causeways to be made, where necessary, keep the same in good repair and renew them when destroyed, provided that an emergency exists, or pending the awarding of any contracts.

4. Make quarterly reports, under oath, of the number of days they have been employed during the preceding three months, the number of days' labor performed on the roads and highways in their respective districts, by whom performed, and the wages paid per day; filing therewith a receipt or receipts, signed by each or all persons who have performed labor, stating the number of days' labor performed, and the amount received for the same; also the amount and value of the materials and the kind of each thereof.

5. When not otherwise provided for by the law, he shall receive for his services as such Road Commissioner, twenty cents per mile one way for all distances actually traveled by him in the performance of his duties; provided that he shall not in any one year receive more than three hundred dollars.

6. The Boards of Supervisors of each of the several counties may, if they deem it to the best interests of their respective counties, appoint one Road Inspector for each such county, and prescribe his duties and compensation, subject to the provisions of this act, provided that the compensation of such Road Inspector shall not exceed the sum allowed by law as the total compensation for the Road Commissioners of such county. In case such Road Inspector be appointed, no salary, fees or compensation shall thereafter be allowed to said Supervisors as Road Commissioners during the time that said Road Inspector is serving as such. The salary, fees or compensation of such Road Inspector shall be paid from the county-road funds, and shall be as nearly as possible apportioned among and paid from the road district funds, according to the amount of service performed by him in the several road districts of the county. Said Boards of Supervisors may delegate to said Road Inspector all powers conferred upon them by law as Road Commissioners, save that said Boards of Supervisors shall not delegate to said Road Inspector any power or authority to open bids, or award contracts, as provided in this Act, and no Road Inspector shall be directly or indirectly interested in any such contract.

2646. The Board of Supervisors must:

1. Advertise for sealed bids to maintain the roads in the several districts in the county, where contracts have not already been let, or for the reletting of contracts, by notice in a weekly paper published in the county, or in one published within the district in which the work is to be done, if there be one so published, and also post three notices in prominent places within said district, for four consecutive weeks immediately prior to the day set for receiving and opening said bids and awarding contracts.

2. The notice shall contain a general description of the roads in the district in which the work is required to be done under said contracts, the boundaries of the district, and explicit specifications as to the manner in which the work shall be done in particular parts or portions thereof.

3. The bids shall be made and contracts awarded for a term of not less than one nor more than four years. They shall be opened and the contracts awarded at any regular meeting.

4. Said contracts shall be awarded separately for each road district in the county and no contract shall be awarded to a person who is not a qualified elector of the county.

5. Contracts shall be awarded to the lowest responsible bidder, and a bond issued to be executed in a sum equal to the amount of the contract for the faithful performance of the conditions of said contract. The contractor shall also be required to perform the duties

described in subdivisions two and three of section 2645 of this chapter.

6. The Board may reject all bids.

2652. The Board of Supervisors may, annually, at any regular meeting held between the first days of January and March of each year, levy on each male person over 21 and under 55 years of age, found in each road district during the time set for the collection of said poll taxes for that year, excepting all persons who were honorably discharged from service in the army or navy of the United States, at any time within the first day of April, in the year of our Lord 1861, and the first day of September, in the year of our Lord 1865, an annual road poll tax not exceeding three dollars; and from every such person not above excepted, in a road district, who has not paid the same in some other district, must be collected the amount of road poll tax so levied.

Said road poll tax shall be collected by the County Assessor in the same manner that State poll taxes are collected, and all remedies given by law for the collection of State poll taxes, shall apply to and be in force for the collection of road poll taxes.

Road poll tax receipts in blank, signed and numbered in the same manner that other poll tax receipts are signed and numbered, shall be delivered by the Auditor of the county to the County Assessor on or before the first Monday of March of each year; and said Assessor shall be charged with the amount of such road poll tax receipts delivered to him, and be credited with those returned, and shall settle with the Auditor, and pay over the amounts collected, in the manner provided in section 3553 of this Code.

A sum not exceeding 35 per cent of all the road poll taxes so collected may be apportioned to the General Road Fund, and the balance shall be apportioned to the several districts of the county from which the same was collected.

Section 8. All Acts and parts of Acts in conflict with this Act are hereby repealed.

Section 9. This Act shall take effect and be in force from and after the Monday following the first day of January, in the year of our Lord 1893.

## THE IRRIGATOR.

### Water in the Desert.

Moses has gone out of the business, but, judging by recent achievements, his mantle has fallen upon W. C. Pratt, who recently has had splendid success in boring for water in the Mojave desert.

Last year, he sunk some wells east of coyote holes for Wm. Landers, in the deepest well, finding water at about 40 feet from the surface. These wells were fitted up with pumps, so that in what had heretofore been a perfectly dry region, yet at certain seasons abounding in nutritious grasses, cattle could not only feed, but be watered as well.

This season he sunk two wells—one on each side of Borax lake and at a depth of seven feet from the surface, he struck water of good, drinkable quality.

But the most interesting results have been obtained about 30 miles east of the town of Mojave. The surface of that region is arid and desolate in the extreme. The sand, which is the principal covering, is full of soda ash and borax salts, and is utterly unproductive, and where that is blown away, as happens in spots, there is to be found a villainous sort of hardpan, apparently of no use for this world or the next. In places, the ground is hollowed out, as if the bed of a dry lake.

In the gulches and canyons, and in spots upon the desert plain itself, there is some cattle feed, and stock wander all over that country in search of something to browse upon. Their method has been to hunt around for feed as long as they can stand it, and when their thirst becomes too powerful, to strike off for water. In this way, while cattle manage to sustain life, they fall of accumulating fat to any appreciable extent, and live that tiresome, cheerless and unprofitable sort of existence common to all varieties of rackabones. Then they are bothered with a tireless pest called the "heel fly," which incessantly prods them where their flesh meet, and to avoid which it is their desire and delight to wallow in mud and water.

This spring, Mr. Pratt commenced boring for water near the edge of one of those dry lakes, and altogether has now dug some 30 wells, finding, to his surprise, and as well to the astonishment of all, that from the deepest, which is about 43 feet, to the shallowest, which is only 15 feet to water, all have become flowing wells. None of them yield much water, but in the aggregate, enough flows to fill the bed of the dry lake, and make an exceedingly comfortable spot for the cattle.

The formation of the desert is very peculiar. Here and there, but not as a common thing, are patches of land that, with water for irrigation, would become exceedingly fertile. But the most of the surface covering is alkaline sand, utterly unproductive, and the bedrock of almost the whole region is lava. Where the water comes from is a mystery, and why it should be such fair quality, when there are so many salts upon the surface, is an added secret. — Bakersfield Californian.



## PATRONS OF HUSBANDRY.

## Our Grange Edition.

The Grange news of most general interest is given through our editions of our paper on this page. Several supplemental pages, devoted to Grange interests, are added in our Grange edition, which any subscriber can receive in lieu of the regular edition WITHOUT EXTRA COST, by addressing the publishers.

## The Master's Desk.

R. W. DAVIS, W. M. S. G. OF CALIFORNIA.

If you are a Patron of Husbandry, say so! Don't be ashamed of your calling! No man should follow a business or belong to an organization, and be ashamed to acknowledge his calling. The Grange honors those who honor the Grange. Don't you know it? Then stand up for the Fraternity that stands up for you, and your family and your home.

Santa Rosa Grange met with good success in its first effort to raise money with which to buy a piano.

Study to see how much work can be done with least physical exertion! Study to see how wise you may be and how few words will express your wisdom intelligently to others.

Never mind your station in life. Be sure to fill it well, and another opportunity will soon be yours.

Catch a thought and tell us through the RURAL how you caught it. Won't you?

It will be good news to the many Patrons who have heard Sister Alling of Stockton Grange sing, and conduct the singing at several of our State Grange sessions, to know that she has consented to do similar service at the coming session, soon to be held at Hayward. There is nothing that adds more to the pleasure of our annual Grange reunions than the good, well-sung songs and choruses of our Grange song-book. We hope Sister Alling will soon announce the pages on which these choruses are to be found, so that all may come prepared to sing with the spirit and the understanding. Bear in mind, this does not in any way interfere with the vocal solos, duets, quartettes, nor with the instrumental music, which the good people of Hayward are expected to furnish. This is merely for the good, enjoyable, old-time singing in which all are invited to participate.

Concerning the organization of juvenile Granges, quite a number of inquiries have been made at the Master's office. Until further information, which has been sought from the proper source, is received, no definite instruction can be imparted. In the meanwhile, we hope all will wait a time with patience.

It seems but yesterday since lines were written, urging Patrons to plant good seed, both in the soil and in the social circle, to the end that the Grange might be honored and profited. Now, so soon the golden harvest of grain is upon us, and we are reminded that the seed sown in the soil was good, and that the laborer and the cultivator did good, honest work. Now the work of the harvester and the husbandman begins, we trust they will each be faithful to the task required of them. If so, the proceeds will be fully satisfactory for the year's labors. Let us, then, turn some attention to the seed sown in the Grange field. Is the work well done? If so, what will the harvest be? We believe that the Grange seed is well sown in California's richest soil, and that the autumnal harvest, soon to be reported at our annual meeting at Hayward, will prove, like the grain harvest, to be satisfactory. Yet we should not rest. The faithful harvesters and the gentle gleaners must keep to work, so that the store of ripened fruit, to be placed in the keeping of the sturdy husbandmen and matured Matrons, will be large and well selected. Will you do your share to gather some good members into the folds of your Grange? Let every reader of this bring in at least one name.

Are you preparing a song, an essay, a recitation, or any thing for the social and mutual entertainment of members of the State Grange? If so, write Miss Jessie Sharal at Hayward, so that your name will be on the list. Don't forget.

The successful sportsman does not fire his gun till he sees the game. Because he may hear a bird flutter in the bush is no reason why he should point the gun in that direction, and hang away. On the contrary, if the hunter wants to kill the game, he waits and watches for any early opportunity to "get a head on the bird." Then, with deliberate aim he pulls the trigger, and generally the bird is killed. Now it is even so with the persons who are always ready to fire an opinion. More frequently than otherwise the mark at which it aimed is missed. Be sure you know at what or at whom you send a criticism or an objection before you bang away. Many times persons criticize harshly and unjustly (but not intentionally so) because they have not taken the time and the labor to know whereof they complain. When it is too late, the mistake is seen, the rebound is felt, and the injury comes home to the persons who little expected to be shot with their own arrows. Moral! Be cautious. Be true.

## Report of National Legislative Committee P. of H.

To the Patrons of Husbandry of the United States: In compliance with the instructions of the National Grange, your Committee have sought to impress upon the minds of the members of the National Congress the importance of enacting into law some of the measures proposed by our Order for the relief of a depressed agriculture.

We have been kindly received and many of our representatives seem anxious to comply with our urgent demands, and some satisfactory legislation was secured in the interests of agriculture, but from selfish causes many of our measures were prevented from being enacted into law. There is too frequently some selfish force which succeeds in defeating measures proposed for our relief. Of course there are other interests which antagonize our proposed legislation, and these seem to be able to promptly combine at the proper time to overwhelm, or at least, prevent for a time definite and final action. We had reason to hope that with the tariff bill a law, and out of the way, that Congress at this session might find time to protect the producer of honest, genuine agricultural products from ruinous competition of fraud compounds and mixture composed of materials not desired by consumers, but so skillfully prepared as to convey the impression that a good sample of the honest, genuine product is being received by the purchaser. For this purpose the Conger Lard Bill was introduced and passed the House, but was halted in the Senate by obstructing it with another bill, which was entirely satisfactory to the men who are manufacturing the compound lard. This is one of the effective ways of killing a good measure, and the Conger bill met this fate.

## Necessary Measure.

The feeling is very general among all classes that the Butterworth bill to prevent gambling in farm products is a necessary measure, and it was fondly hoped that this bill might become a law and give us an opportunity to test the removal of option selling upon legitimate business. This bill was antagonized by hoards of trade and chambers of commerce, organizations that should be foremost in efforts to protect legitimate trade. The opposition of gamblers in futures was to be expected, but ought not to have been able to prevent the passage of this measure, if it had been properly pressed by those in charge of the same. The legislation sought must wait until the farmers learn to send fighting and faithful friends to represent their interests in Congress. Friends without courage and push, are only in the way when reforms are sought. "If our friends, the enemy" flatter themselves that the battle is ended they will be much deceived. The farmers may be slow (too slow) in starting into a campaign in their own defense, but once the battle commences they will never give up the struggle until the right prevails.

## Contest to be Renewed.

When Congress again assembles the farmers will pitch their tents alongside the Capitol and renew the contest. The next Congress, we feel assured, will have more men who have practical knowledge of the needs of agriculture, and we confidently hope that much wise and just legislation will result from their efforts.

## Several Important Financial Measures

Were under consideration; that provided for the free coinage of Silver passing the Senate and only failing to pass the House, because it failed to come to a direct vote. It is quite probable that the measure will pass both houses of the next Congress and become a law, when, it is to be hoped, it will bring about the favorable results to agriculture expected by its friends.

Our Order represents the wishes not only of its own membership but those of a large proportion of the people of our country in asking for an increase in the volume of currency to \$40 and \$50 per capita. The proposition to issue this additional currency upon real estate security, at a low rate of interest, has been quite generally brought to the attention of the people. It has been favorably received and advocated by many of the best and most intelligent citizens of our country, who believe it would greatly relieve the depressed condition of agriculture, and enable farmers to save their homes from the hammer of the Sheriff. It is not, as claimed by some, a wild, visionary and impracticable scheme; neither is it class legislation. There is no law which prohibits any men, or class, from buying real estate, and thus be prepared to furnish the required security. Whether it would be well for the Government to enter upon this policy or not should be thoroughly discussed, which would so develop the plan as to make it entirely practical, or involve a financial policy that would give needed and permanent relief. Of one thing we may be assured, out of a fraternal discussion of the question will come light and good results. There must be better conditions possible than those which exist at present under the financial policy which now rules all the great nations, and the citizens of the United States will not be slow in finding out the conditions and applying them to the advantage of our people. The very rich must go, and there must be a more equitable distribution of the comforts of life to the worthy but extremely poor. All our people must learn the commandment: "Do unto others as you would have them do to you."

## To Whom Credit is Due.

In conclusion we report the passage of Meat Inspection Bill, the bill to regulate the transportation of exported cattle, and the Cattle Inspection Bill, which are expected to increase the consumption of our meat products at home and abroad, and thus benefit the producers. We desire to thank Brothers Sanders, Whitehead, Thompson, Wedderburn, of Washington, and all the good patrons in the several States who have so nobly responded to our calls for help. It is not the fault of your committee, nor your fault that we have not succeeded in all our efforts, and we sincerely trust that our successors may be as ably supported. We desire to say that very much depends upon having a man in the Speaker's chair who is ever and at all times the friend of Agriculture; he can do more for or against our cause than any other ten men in Congress. The farmers should therefore, use their influence to secure a favorable man as speaker of the next House.

## Only a Question of Time.

While we have not accomplished all we had hoped for, all we have worked for, nor all that we felt we had a right to ask for, still we have made good progress, our lines have been advanced, behind us we know is an enlightened public sentiment upon the economic questions, that so closely concern us all, that is growing stronger day by day, and it is only a question of time if we are true to ourselves, true to our Order and true to agriculture, that the next, or a not distant Congress must give the people what they so earnestly demand.—J. H. BRIGHAM, L. RHONE, JOHN TRIMBLE, Legislative Committee.

Washington, May 20.

## Sacramento Grange Strawberry Festival.

EDITORS PRESS:—The fact I have shouted but little for a month or so for the Grange in these columns has been noticed by several Grangers, and they have put in circulation the rumor, which is entirely without foundation, that I have been in the hospital some time, in consequence of performing the childish prank of sticking buttons up my nose without figuring on the evil consequences. The whole story is a malicious falsehood gotten up wholly for campaign purposes. To those who have wept bitterly on account of not hearing my tinny voice of late I will say to them I saw in the RURAL PRESS, or in some other paper, that the drum that has the thinnest head makes the most noise, and when I read it, the statement knocked so much climate out of me that I am still in search of it. I have not yet determined the thickness or thinness of my head, but for all that I am going to write you a description of

## The Strawberry Festival

And good time we had last Saturday at Grange. The hour set for opening was 10 o'clock, but long prior to that time there was a goodly number present to attend to the duties involved in the festival. They came with willing hands and generous hearts. Their souls were overflowing with brotherly love for those for whom they were working (for they knew some of their brothers and sisters would be there from Florin, Elk Grove, Enterprise, American River and Roseville Granges), and they having spent so many delightful hours with the Granges mentioned, felt as though they would like to try and pay up back interest on pleasure and profit received, having given up all hope of ever paying the principal.

After the 3d and 4th degrees were conferred on a class of two, the assemblage of about 175 happy, mirth-beaming Patrons repaired to the banquet hall and then the fun began. When the dainty and lovable Granger misses asked the banqueters to quote the name of their favorite weakness, in every instance they whispered "chicken pie." So general was the sentiment kindly in favor of the product of the field and coop, that it was nominated as the article of diet that would produce the greatest results, without a dissenting voice. The only brother who seemed to vote with but little vim on this important question was he whose name is a household word, whom we call by the endearing name, Uncle Hiram. The manner in which Bro. Johnson voted can be largely accounted for by the fact he is cognizant of chicken pie haggage cannot be checked on a pumpkin pie train, and it is said he has a penchant at all times to mingle with the latter. At the table, all seemed to enjoy themselves.

## Fun Was Prevalent Everywhere.

Every one caught the spirit, and mirth and good feeling ran riot. Every one seemed full of fellow-feeling. There was a smile on every face; even "Old Maids No. 1 and No. 2" smiled between the periods of shouting for more vinegar. Poor "Old Maids No. 1 and 2," you have my ripest, my sincerest and my heartiest Granger sympathy, and if it were not that you are two, I would try to help one of you out of your present awful dilemma.

The banquet over, the Grangers, old and young, again met in the hall below, and a finely executed program was rendered by the young Grangers of Sacramento Grange, aided very materially by a bright-eyed sister from Elk Grove Grange, Sister Dottie Leboyd, who recited, in a wonderfully attractive and easy manner, a humorous selection, which was greatly appreciated, "Come Again."

After the program was over, Bro. David

Reese, of Juvenile Avenue in the town of Florin, was called on and made

## Some Ringing Remarks.

He always talks business. He closed his discourse with a grand peroration which was highly appreciated, for he referred to the fact that some chickens on his way were to be assassinated next month and a post-mortem investigation held on the same at Florin, June 13th. Sacramento Grange will hold no session that day, but will go out a hundred thousand strong. Bro. Reese was followed by Bro. Halverson of American River Grange, who spoke eloquently and in a quaint and attractive manner that captivated the whole audience. Bro. Halverson pruned off verbiage and dealt in facts. After presenting one fact in which seemed to be its clearest possible light, he clinched it by adding to it in substantiation another one which left his position simply unassailable. It is our desire to have Bro. Halverson come again and deliver us a lecture. Bro. W. W. Greer also gave the Grange some good advice. His remarks were bright, clean-cut and easy of comprehension, yet did not fall to the level of the prosaic. Bro. Greer has not visited us very much of late, but he proposes to do so from now on. He has not deemed it just the proper thing to leave home, for fear the baby might have a tooth come while he was gone. We have greatly missed Bro. Greer, for he lends much life to our meetings. Bro. J. B. Welty also spoke for some time on advanced topics. I tried to jot down his speech for publication, but confusion at my desk prevented me. It was well worth it. Other speakers followed, and then the Grange closed. Hand-shaking followed, kisses were given by myself and others, and each wended his way thoughtfully homeward, firmly convinced the day was well spent, and the man who says the Grange is a failure should have his head trepanned and his skull filled with a new set of brains.

If I can settle the drum business spoken of at the outset, I may write again. In doubt,

MACK JR.,

Union House, May 20. Sec. Sac. Grange.

## Carpenteria Grange.

EDITORS PRESS:—I want to tell you of another of our pleasant Grange meetings and of the interest the members took in the "Question-box." Many questions were answered by our Worthy Lecturer and some remain to be answered at our next meeting. There was much information gained from the answers, and each member took home new thoughts, borrowed from the experience of others, which will prove beneficial and of interest to them.

Am sorry to say Bro. Smith is not well, which of late has caused his absence from the Grange. Bro. and Sister Smith are good Grangers and we always enjoy seeing them at our meetings, as also Bro. and Sister Wood.

The Grange and Alliance are going to hold their festival together and we want all the P. of H. and F. A. members to join hands and have a "good time"—that will be our aim. Will let you know in due time when it is to take place.

If you could see the beautiful bouquets the members bring to our meetings, you would believe that each meeting was a "Flora Day" with our Grange.

MRS. A. G. STINSON,

Carpenteria, May 28th. Master Grange.

## Merced Grange.

EDITORS PRESS:—Bro. Overhiser, Past Master Cal. State Grange, paid our Grange a visit May 16th and explained the Trade Card system. We were well pleased with his visit. Merced Grange is a live Grange. We all work together for the good of the Order. Our visit to Stockton Grange was a grand success. They entertained us right royally. There were 93 Patrons and friends in our car. We wish Stockton Grange to visit our Grange, or any Grange in the State pay us a fraternal visit. We will do our best to entertain and show them our beautiful little city of Merced.

MRS. E. S. ELLIOTT, Sec'y.

Merced, May 27th.

TULARE GRANGE CELEBRATES A MARRIAGE. Last Friday evening the members of Tulare Grange to the number of 40 gathered at the residence of Mr. and Mrs. John Tnohy for the purpose of congratulating them upon their recent marriage and welcome them to their home at Tulare. E. C. Shoemaker, Master of the Grange, on behalf of those present, extended to Mr. and Mrs. Tnohy the congratulations and kind wishes of the Tulare Grange, which was responded to by Mr. Tnohy in a happy manner. Under the leadership of Mr. Treetek the Grange choir sang several songs. Mr. Capin gave a recitation, after which cake and ice cream was enjoyed by all. It was a pleasant affair and will be long remembered by all the participants.—Visalia Times.

GOOD WORDS FROM GLEN ELLEN GRANGE.—The people of Glen Ellen have organized a new Grange. J. P. Whitaker, Master of Bennett Valley Grange, and Bro. Don Mills, Past Master, gave the necessary instructions in the use of the gavel and such other information as was necessary to put them in good running order. They have good material at that point for a first-class Grange, and the only wonder is that they did not take the step years ago. The agricultural outlook in all of its various branches is very promising at this time.—M. T.



## FARMERS' ALLIANCE.

## Alliance Edition.

Subscribers can receive our FARMERS' ALLIANCE EDITION WITHOUT EXTRA COST, by applying for the same. That edition contains several supplemental pages of Alliance matter, in addition to that which appears on this page through all editions.

## Uncle Sam's Cash-Box and the Alliance A B C.

EDITORS PRESS:—Pres. Cannon is right! No kind missionary of the F. A. & I. U. has as yet enlightened us benighted Carmelites even with the A B C of Alliance principles. Our cry for "more light" has been but poorly satisfied by such faint glimmer emitted through convention platforms and newspaper paragraphs. So we horny-handed people do not yet quite know how and when we are to dip our fingers in Uncle Sam's cash-box, along with the National banks, the politicians and the rest of the high-toned boddlers. The value of a farmer (as I showed in the RURAL PRESS, from a Government schedule of salaries years ago) has so long been below par that even a remote prospect of farm stock being at a premium is soul-inspiring. God speed the Alliance in all and any elevating work it undertakes!

But will Mr. Cannon pardon me if I ask him a few questions from my standpoint? And let me here say that I have been a California farmer for over a quarter of a century, and am heart and soul with any forward movement.

Mr. Cannon admits that "no sensible man" can see how a Government can lend money at two per cent, while borrowing at three.

Does not the sub-treasury scheme propose that Government should loan money to farmers, on landed security, at two per cent, and is not Government, as a fact, paying three per cent and more?

Mr. Cannon then says: "Farmers demand that more money be put in circulation by the Government." I would like to ask him whence Government is to obtain more money to put in circulation?

## How the Government Obtains Its Funds.

It seems to me that the Government obtains its funds in one way, and in one way only. That only way is by taxing the people, too often by perpetrating the very outrage farmers complain of—impoverishing one class to pamper another. I know it is popularly supposed that the Government can make money in other ways. It was customary years ago, when the Government was running dry, to water the milk. They turned the lead pot loose when they melted their silver for coins and stamped their half and half with the old mint die, and thought they had found an easy road to wealth. But the debased coin always came home to roost, and the people, after a world of extra suffering and misery, had to pay the piper with the inevitable penalty—increased taxation.

The modern supposition sometimes is that the Government can assume the role of the Creator and say "Let there be money!" In undertaking this, the Government is very apt to transcend its powers. Mysterious and cabalistic as those powers may be, even the Government can never make something out of nothing. The Government, after all, is only you and I and the rest of us, confederated for certain ends. It can issue what is called "fiat money," in the shape of notes, bonds and the like, but their value as currency depends (as the value of your and my note or bond depends) on the soundness of the Government's credit, or its ability to redeem its notes with solid value, which solid value is always wrung from the people by taxation.

## Money Is Not Only a National, but an International, Affair.

Your currency must have an international value; it must be referable to a world standard. It may be, as it has been, hogsheds of tobacco, but it must be a medium of exchange, and it serves its purpose, that being the only real purpose of money. It seems to me the F. A. & I. U. must keep this in mind in all its proposals, or it may discover it is paying a high price for its cheap money by finding paper currency at a heavy discount. There are men living yet (one or two of them pensioners, too) who have seen three genuine paper-fiat-money-Government dollars given for one of solid coin! History may repeat itself if we are unwise enough to let it, and don't you forget it!

Then Mr. Cannon argues that I could not borrow money on my farm at 2 per cent and lend it to some "other fellow" at 7 per cent, because the Government loans would fix 2 per cent as the maximum rate all over the United States. Even, for argument's sake, granting this, would it be impossible for me to find the "other fellow" across the border, or say in Australia, Europe, Asia or Africa. The F. A. & I. U. must make 2 per cent the universal rate, or they would simply deplete this country of all capital, which would seek investment in other funds at market rates more remunerative than ours.

## A Most Important Subject.

I think this subject one of the greatest importance for us farmers to discuss. We may as well try and understand what can and what cannot be done, before we formulate our demands and present them to Congress. I trust

we have enough self-control to ensure a judicial discussion, from personality and acrimony.

I regret to be, to the F. A. & I. U., in the position of an outsider, but our valley is so sparsely settled that we are hardly able to gather in a Sub Alliance. I will add nothing more at present beyond this, that I am heartily in accord with Pres. Cannon in striving that the almighty man and not the almighty dollar shall bear sway in this "Land of the Free and Home of the Brave;" and heartily in accord with that plank in the old platform that demands equal rights for both sexes. I want my daughters to have equal rights with my son. I knew in my mother a being of fully equal worth with my father, and I am aware of no reason why my wife has not as much right to make laws for me to observe as I have to make laws to coerce her.

EDWARD BERWICK,  
Carmel Valley, Monterey, May 30, 1891.

[Written for the RURAL PRESS.]

## The Relation of the Order to Politics.

The Farmers' Alliance is a place for free and full discussion of public questions.

The Farmers' Alliance offers its members political freedom. Members of the Alliance have all the rights of American citizens. They can do in a political way, in Alliance meetings and in the name of the Order, all that they could do outside the Order. But there are some things that they do not choose to do in the name of the Order. Members of the Alliance may nominate in Alliance meetings candidates for public office, but they seldom avail themselves of that privilege or right, deeming it more in accordance with American spirit, and wiser, to put up candidates in open conventions, to which all men in accord with Farmers' Alliance principles shall be invited.

There is no political obligation connected with membership in the Farmers' Alliance. Every man is assured, before taking the obligation—an obligation only of honor and fidelity toward his fellows in a common cause—that it will in no wise conflict with his political or religious views. If members of the Order act together politically, such concert of action is voluntary, and is born naturally out of a realization, largely spontaneous and instinctive, that they have like wants and like purposes, and that they are journeying together toward a common goal—the freer unfolding of individual character and the consequent more perfect development of the human race, the great objective ends of human life.

## A Farmers Standpoint Required.

When men will consent for a moment to look at political matters or public affairs from the standpoint of farmers, it does not take them long to see that their political interests are in common. We may learn a lesson in this matter from saloon men and party bosses. Let any legislation be proposed likely to injure their business interests or political supremacy, and see how quickly they drop their partyism and rally to a common standard.

The liquor men of this State have a business association, which includes nearly every dealer in California, the great object of which is to protect their business interests against adverse legislation. It decided most of the nominations to the legislature last year. With how much more propriety may the farming people form an association not exclusively political, for protecting from restricted and unwise legislation the great farming interests which do not destroy, but which produce, and build up, and make possible the prosperity of this great nation. Take the mercantile and money-lending classes by themselves and see if you can find in them sufficient patriotism to build up a great nation. More likely it is that left to themselves, their rampant selfishness would cause them to devour each other.

## In Union There is Strength.

In the unitedness of the country people—that unitedness which comes from intelligent perception of like need—is their strength. A nation in which the great majority have lost their homes is no nation. It is but a shell full of dry rot from which vitality has departed, and when injured it cannot recuperate or progress. To protect our homes, we must protect the business upon which they are built. When it comes to a question between two businesses, irreconcilable in their nature, the feast necessary must disappear.

## What Is Required.

In a country whose government is supposed to be based on the will of the people, those who do not deliberately devote a portion of their time to careful, accurate, independent and just investigation of public affairs—affairs which for very existence depend upon the money of private citizens—are not good citizens. Organized consultation of a man with his neighbors regarding public affairs—the affairs of all in such a way as to accurately preserve the results of such consultation, will be made a part of his regular business by every good citizen; but, by a little alteration in our form of government, or system, the people would be able to have a more direct and effective influence upon and more intelligent understanding of public questions with one tenth the trouble now necessary. Nothing inspires interest in public questions, and renders such interest so easy as the certainty that the people can by direct action, make such interest effective.

There is a time, and there are ways to inves-

tigate. Much of the investigation on all subjects, will always be the result of individual effort, yet need not all be. There are times and places for consultation, and there are times and places for action, of a party kind. This Order—the Alliances—may do much to promote investigation. The Order constitutes a most excellent place for independent consultation on political affairs, which are in truth only public affairs, and here and there a local candidate may be selected in the meeting of an Alliance, but as a rule, party action will be taken outside the Order, and under that most appropriate name, "The People's Party." Under that name may be combined all the good of the Republican party and all the good of the Democratic party, for each has its good points and its good men, in the ranks.

## The Power Behind the Throne.

The Alliance is pre-eminently a place for consultation; a place for compounding that wonderful thing called common sense, which is better than any man's special sense—even the sense of the wisest, because, being the compound and average and composite of all, it more nearly satisfies all. The Alliance is a formative place, from which shall continually spring forth into activity a myriad better purposes, and better men and better methods to gladden the people and render more productive the land, and, in the end, God helping us, enable every faithful citizen and wife and the children to have homes inalienable, untouchable by errors of judgment, untouchable by greed. The Farmers' Alliance is a vast machine wherein the country people of the United States may consolidate their individual opinions into common sense, and whereby they may set forth that common sense to their fellows, and do their part toward making up that greater common sense which should be—but which our present political system does not provide for making—the law of the whole land; that common sense which in old English times was the common law there, and which in these times in this country our political system, defective in one great respect, suppresses, instead of enacting. The common sense of the people, as a rule, is suppressed from becoming law; and such being the case, the wonder is that we have so little misgovernment, much though we have.

There should always be a farmers' Order for social, business and political purposes, under some name, so organized at all times to be pervaded by the will of the majority of its members, and so be kept ever fresh, vigorous, endearing; so organized that every rule governing it shall have first been ratified by direct majority vote of those to whom it is to apply, so organized that every declaration put forth to the world by it should represent the will of the majority of all its members, and not merely the will of a majority of those composing a small delegate body. God grant it may sometime be so.

FRANK P. COOK.

Modesto, Cal., May 24 1891.

## County Alliance Notes.

## Los Angeles.

EDITORS PRESS:—The officers elected by the Del Sur Alliance No. 304 are as follows: Pres. J. W. Org; Vice Pres. A. W. Butler; Secy. M. E. Mather; Treas. H. R. Meoredy; Doorkeeper, H. A. Johasse; Asst. D. K. F. Burger; Lect. J. H. Coe; Chap. T. Menzies Jr. Stew. G. Van Buskirk. Pres. J. W. Org is appointed organizer for Antelope Valley (L. A. Co.) and Kern Co. M. E. Mather, Secy.

## Monterey.

The Granger sentiment in San Lucas and the Farmer's Alliance following in Long Valley and Oasis, are respectable in numbers and enthusiastic in purpose, for obvious reasons that suggest the necessity of such organizations in this part of the county. In the purchase of flour, lumber, agricultural implements, the warehousing and transportation of grain and in a variety of ways, they are "cabineted, cribbed, confined" in a manner that excites the rebellious Adam in human nature.—Salinas Index.

JOINT ALLIANCE PICNIC.—According to previous arrangements the Oak Grove and Las Tablas Alliances met at the picnic grounds near S. P. Sitton's place on May 22, for a few hours of social enjoyment, spoiled with some important business. At one o'clock Chaplain Sitton called the meeting to order, announcing as its chief object the purpose of building a sawmill on Las Tablas creek. After some singing by Mrs. Gibbons, Miss Mann, Mr. Ramage and Mr. Gibbons, dinner was announced, and after this was disposed of the business of the day was resumed. Mr. Gibbons being called on for a speech said that we had long needed a mill here to cut our lumber, pickets, and so forth, and urged its erection and operation by the Alliance in strong argument. Messrs. Ramage, Marsh and Sitton followed, in harmony with the same, and the result was the appointment of building, finance, and other committees, who will report the result of investigation at our next meeting.—San Miguel Messenger.

## San Luis Obispo.

A corporation to be known as the Farmers Alliance Business Association, is being formed by the Alliance hereabout. The capital stock is \$20,000. They have purchased a block of land near the railroad on which to build warehouses, etc. The association intends to do a general mercantile business, sell and buy

real estate, etc. With the flouring mill at San Miguel and the business carried on here, the Alliance will control considerable trade. The farmer has at last realized his true condition, and now seeks to aid himself as well as others. These two enterprises should receive encouragement, which no doubt they will.—The Moon.

Deputy Organizer H. W. Rhyme organized two more Alliances last week, one at Eldorado, near Pozo, the other at Cholame. The Eldorado Alliance has started with a membership of 12. The following officers were elected: President, I. N. Downey; Vice-President, Louis Anderson; Secretary, Miss. H. Stone; Treasurer, Mrs. I. N. Downey; Chaplain, Wm. Billaugh. Time of meeting, first and third Saturday in each month. Postoffice address, Pozo, S. L. O. Co. Express, Santa Margarita. The Eagle Alliance started with 26 members. The officers elected were as follows: President, David Wait; Vice-President, Wm. F. Shimmis; Secretary, Marion Shimmis; Chaplain, John Kerr; Treasurer, James Byer. Time of meeting, second and fourth Saturday in each month. Postoffice address, Cholame.—Messenger.

The Melville Alliance met May 23, with about 50 members present. Seven persons were initiated. After the business of the evening, the young folks to the music of a violin, passed its fleeting hours with flying feet.

## Placer.

In speaking of the Lone Star Alliance, the Placer Republican says: Lone Star, which is usually a go-ahead community, should be able to bring together a large first-class Alliance and thereby join the march for mutual benefit and improvement of the farmers.

## Santa Barbara.

The Farmer's Alliance gave an open session on Friday night at G. T. Hall. A large crowd assembled, and was addressed first by Professor Loveland in a very eloquent and able manner on the "National Banking System." Colonel Heath addressed the assembly at length on the "Past, Present, and Future," in his own inimitable style. The speakers were greeted with hearty applause. Misses Spurlock and Ward favored the audience with some beautiful duets and solos which were highly appreciated.—Press.

## Santa Cruz.

H. C. Dauntless writes: At the last regular meeting of Valencio Alliance 18 new members were elected, and added to the rolls of the reform movement. San Andreas Alliance reports gains at every meeting. Corralitos has over 80 members and adding more at each meeting. Aplos Alliance continues to prosper. Open meetings are held the second Saturday in each month, for the purpose of discussing the leading issues of the day. Look out for enemies; all ye loyal guards!

## Sonoma.

At the meeting of the Farmer's Alliance in Petaluma, the subject of bale rope was thoroughly discussed, and the Alliance asks the farmers of Sonoma county to unite with it in carrying out the provisions of the following resolution: That it is the sense of this Alliance that all monopolies are detrimental to the interest of the farmer—that we will use our influence against and advise farmers not to purchase of the rope monopoly until a reduction in prices, and will exercise our own judgement in using wire or rope for baling our hay.—Argus.

## Santa Clara.

At a meeting of Lincoln Alliance, No. 6, F. A. & I. U. it was decided to give an entertainment and dance on Friday, June 12th, at H. V. A. Hall, Cupertino. The Alliance affairs have been the most successful given here, so a good time is expected. The young ladies take an active interest, being members, and as I am a firm believer in the ladies, why, I give them the palm in social affairs. In the affair managed by the boys something is missing, it seems to me. What, I can't explain.—Cupertino Cor. Mercury.

## Yuba.

Saturday, May 16, the first Farmer's Alliance in Yuba county was organized with the following officers: A. W. Oakley, President; P. L. Hutchinson, Vice President; G. W. Maxwell, Secretary; J. M. C. Jasper, Treasurer; D. A. Ostrom, Doorkeeper; J. C. Wilkins, Steward; C. P. Barry, Lecturer. The second meeting of the Alliance was held Saturday, May 30, when the business was gotten under way. There are now 12 members and a number of others have already signified their intention of joining.—Four Corners.

All around us and from every direction comes news of the quiet, steady growth of the Farmer's Alliance in this State. The membership now exceeds 25,000 of the tillers of the soil, and at the same rate of increase will by November 1892, exceed a membership of 50,000. These men then, if working in harmony, will be able to prevent the return to the State Legislature, of men like Bruner, Dibble and such men as composed the white-washing committees of the late session. In Butte county there are some 14 or 16 Alliances, including one at our neighboring town of Live Oak, all lively and active. In Sutter county there are four or five, each increasing in membership, and in Nevada county there is one at Indian Springs, one at Pleasant Valley and one at Rough and Ready. Yuba has now made a start, having a good strong Alliance at Wheatland, and will soon organize one at Brown's Valley and probably one in Marysville township.—Marysville Democrat.





### The Song of a Flower.

[Original—by CARRIE HOLMES.]

You wish a song of a flower!  
Shall it be of the red, red rose,  
Or of the purple iris  
That by the brooklet grows?  
Shall it be of the stately dahlia,  
Or the flaming tulip small?  
But the peony, in her dress of red,  
Doth far surpass them all.  
The modest little violet,  
Drest in white or blue,  
Peeps gaily out from her nest of green,  
And smilingly welcomes you.  
And there's the lilies, pure and white,  
Or striped with red or gold;  
I am sure of all their glories  
The half cannot be told.  
The pansy (heart's-ease) seems to me  
A radiant flower fair,  
Also the tuberose sweet,  
That with fragrance fill the air.  
The daisies (star eyes) from the glen  
May suit your fancy best,  
But give to me the woodbine sweet  
And you may have the rest.  
And there's the buttercup from the field,  
The bluebell 'mongst the grain,  
The snowdrop from the hillside,  
Which speaks of spring again.  
The poppy, our State flower,  
Stands out in bold array  
Among the fields of waving green,  
And on the broad highway.  
So you ask a song of a flower!  
Well, of which shall we sing the song?  
Which flower do you think the fairest?  
To which does the praise belong?

### The Work of Some College Girls in the Slums of New York.

There is a little colony of philanthropic young women doing earnest work for the elevation of the masses of New York City, but so quietly have they established themselves, and so modestly have they worked, that few Gothamites north of the Bowery, have even heard of their presence at 95 Rivington street, where for a year or more they have been conducting a veritable "Palace of Delight" for the mothers and children of the east side.

The College Settlement, the name adopted by the colony, is composed of graduates from Vassar, Wellesley, Smith and Bryn Mawr Colleges, who have organized themselves into an association for practical friendly work among the poor, on a basis which has never before been tried in this country, but which has a precedent in Toynbee Hall, London, the methods of which were thoroughly studied by two of the originators of the American movement, while pursuing a course at Oxford and Cambridge Universities. The house at 95 Rivington street is a large, old-fashioned mansion, the interior workmanship of which proclaims it to have been at one time the residence of some of Murray Hill's ancestors. The rooms are large and high-pitched, with the lofty impressiveness which so delighted the dames of several generations back.

The location and size of this house having been found desirable, it was rented and put in thorough repair before the girls took possession.

Although the exterior of the building is dingy and unattractive, the interior is all "sweetness and light." The visitor upon entering the parlor is impressed with the air of refinement which pervades the apartment as his eye makes note of the really fine engravings on the delicately-tinted walls, the well-bound books on the cabinet shelves, and the objects of virtu scattered about with the careless grace that suggests the presence of cultivated women. The household, numbering from seven to nine members, consists of a housekeeper, who also performs the duties of chef, Miss J. G. Fine, who is known as the superintendent or Head Worker of the Settlement, and her co-workers, the college girls, who come in relays, some remaining only two, some as long as ten months at a time, to help in the good work. Miss Fine, whose duties are arduous, is paid a salary for her services, she having resigned a much more lucrative position in an up-town seminary for the sake of becoming one of the Settlement.

All of the other "residents" give their labor and also pay a regular board of \$6 a week to the house. Each graduate is her own maid, and not only makes her bed and keeps her room in order, but contributes her share to the general household work, thus practically demonstrating the theories taught by her. The object of the Settlement residents is to meet the people among whom they work, to some extent, on their own plane. It is with this in view that these young women, brave of heart and

true of purpose, forsake their comfortable and in many cases luxurious homes, and devote a portion of the year to teaching and helping their less fortunate fellow-creatures in the tenement-house section of New York City.

The Settlement is gregarious, and hence readily co-operated with the Neighborhood Guild in the management of two girls' clubs, which were already in existence when the Rivington Street house was opened. Since then, several other clubs for little girls have been organized by the college girls.

In these, the children are taught sewing and cooking, how to sweep and dust, to make beds neatly, the proper way to set the table, and in fact, to be helpful to their mothers and fitted to earn their own living when they are older.

The larger girls are instructed in dress-making and in all the domestic arts. Lessons in hygiene, history and science are also given them.

Gymnastic exercises are taught to all. In connection with these, the boys have also military drills. Music and singing, games and reading, make every evening attractive at 95 Rivington street, where many little ones are learning the new lesson of happiness.

There are six rope swings in the yard in the rear. The ground is covered knee-deep with seaside sand, and here from three to four hundred children hold high carnival every Saturday during the spring and summer. Of course, only a limited number is allowed in the yard at one time, and as one of the girls generally remains within eight, good humor and order are preserved.

Realizing that books have been the formative influences in the lives of most persons, the members of the Settlement give a strict supervision to the reading of each one taking books. The boys are eager for history, biography and comprehensive science, while of course tales of adventure are greatly in demand. The girls show a decided preference for fiction. The library is largely made up of contributions from those interested in the work in Rivington street; and surely here is an opportunity for many to help a good cause by sending the books and magazines no longer useful to themselves.

Next in importance to the library, if not surpassing it, are the baths for the use of the neighborhood. The eagerness with which these have been patronized by the women and children of the east side is ample proof of the need for public baths in all large cities where the limited accommodations of the tenement-houses make privacy impossible. Although ten cents is charged for the bath, it is no unusual thing for forty to be taken in a single day during the summer, women frequently walking several miles and spending their care for the rare privilege.

It was found that the baths, like other proffered pleasures, were more appreciated and popular when the recipients were allowed to pay for value received. Hence the nominal fee. Dr. E. W. Higbee of Northampton last year donated a heater for the public bath-rooms, thus making it possible to continue their usefulness during the winter months.

Among the many good lessons taught at the College Settlement, that of economy is not the least important, for, although in a poor section of the city, many of the people make good wages, which they spend without thought for the morrow. The Penny Provident bank, under the direction of the Charity Organization Society, is proving very helpful in teaching how to save.—Hester Dorsey Richardson, in June Lippincott's.

**THE HOMELY BUT USEFUL GIRL**—The "useful" girl, writes Edith Wheeler Wilcox in the *Ladies' Home Journal*, is not noticeable in any way. Everybody makes use of her and everybody likes her. She has no enemies and no lovers. Women like her very much and men speak highly of her when she is brought to their attention in some way, but they never think about her voluntarily. They appreciate her highly when she helps them out of a corner and thank her cordially, and then forget her until they need her again. She is not apt to marry, for men do not care for useful girls before marriage. She can sew, get a dinner if need be, amuse children, assist in getting up entertainments for other people to participate in, and she is an excellent nurse, and reads aloud well and sings a little—enough to rock a child to sleep or to help out a chorus. She is like the green "everlasting," or old-fashioned "live-forever" plant—scentsless and not beautiful, yet indispensable in a garden.

**HOW TO MOUNT A HORSE**—Any woman who lives in the country, and who is not too stout, should be able to mount a horse from the ground unaided, writes Carl A. Nyegaard in the *Ladies' Home Journal*. If she attains to be anything of an equestrienne, she should require no more assistance than a man, though she is handicapped a little by reason of her skirt. She should lower the stirrup sufficiently to reach it with the left foot, then placing the right hand on the upper pommel and the left hand on the lower pommel, by a sideways motion, right shoulder forward, spring lightly from her right foot and swing herself into the saddle. Once there, she should take her foot out of the stirrup, place her right thigh in its proper position above the pommel, and adjust her dress. The stirrup is shortened from the right side by pulling up the strap again. A good dancer will soon learn to mount.

### Womens' Work at the World's Fair.

The lady managers of the Columbian Exposition are blocking out a very extensive work for themselves. This is apparent from a report just made to the President of the Board, Mrs. Potter Palmer, by the committee on State work.

The committee embraces Mrs. Mary C. Cantrill, Ky., chairman; Miss E. N. Book, Fla.; Miss M. E. McCandless, Pa.; Mrs. N. H. Banks, Ky.; Mrs. E. W. Allen, Oregon; Mrs. P. P. Roe, Cal.; and Mrs. W. N. Linch, W. Va. Owing to Mrs. Cantrill's necessary absence, the report was prepared by Miss Book. The same plan of work, the report states, may not be adaptable to all of the States because of differing conditions, but it is suggested that in the first place there should be a friendly consultation between the two lady managers and an agreement as to which shall receive reports, give directions, report to the executive committee, in short, be chief of the State work. The other lady manager might travel through the State arousing enthusiasm among the women and girls, and appointing in each county women best fitted to lead the work or the two lady managers might divide the State between them, attending to these duties each in her own portion. Principles and alternates should work untiedly, and the latter should be intrusted with responsible duties, especially in connection with financial matters.

Under the supervision of the lady managers one woman should direct the work in each county and select assistants in each town, village and community. The county managers might be called county directors, and their assistants local directors of the World's Fair. Each local director might organize a Woman's World's Fair club and Girl's Columbian club, each to have a president, secretary and treasurer. A small initiation fee might be charged, or honorary members might pay, say, 25 cents a week and active members 10 cents a month. The proceeds would form a helpful sum toward paying the cost of material used in preparing exhibits, or the traveling expenses of one or more members to the Fair. The trip and expenses might be offered as an incentive to best work in some line; or the money might be used to buy material for some worker without means who would do the work and perhaps win the prize, but allow the club to own the exhibit and to dispose of it as it may decide. Special effort should be directed to this class of workers who abound in every State, but considerable discretion may be exercised as to the encouragement of false hopes in the minds of a class of workers who are more industrious than artistic. It is possible for a woman to spend two years in joining together 2,000 pieces of beautiful silk with 2,000 kinds of stitches and then turn off her hands a monstrosity. A very high standard should be held up for all classes of work, yet all classes of workers should be interested. Special attention should be given to work of women and girls on farms, and every inducement offered them to compete in the grand exhibits of farm, dairy and domestic pursuits. Women who work in unusual lines should be hunted up and interested. In several States both native and foreign women work in tobacco, cigar, iron, hox, lock and other factories. In cities many such could be reached through the labor organizations.

Very important is it, the report states, to maintain friendly relations with the local press, without whose aid great success cannot be achieved. "We would advise," says the committee, "that, instead of sending the papers long, dry, formal matter, requesting them to 'oult' what they want, that a regularly organized press committee furnish only matter of real local interest. Brevity and neatness go a long way with editors, they being so refreshingly unusual."

All women's societies and clubs should be communicated with. Those of the wealthy and leisure class might be induced to interest themselves in the moral, intellectual and financial development of clubs of bread-winners. Every reasonable effort to interest and instruct the children would be amply repaid in increased patriotism, knowledge and interest, and through them indifferent parents could be reached. By co-operation of teachers special days, such as "Columbian," "Colonial," "World's Fair," and others, especially October 12, 1892 might be set apart for special observance by children.

All educational, industrial financial, social, literary and religious organizations should be induced to co-operate. The committee emphasizes the importance of careful and business-like management of all money intrusted to the hands of all engaged in the work, and says that where the State makes no provision for women's work some arrangement can probably be made with those having the disbursement of the State appropriation, "otherwise women will have to just enter for general competition." The committee expresses the belief that transportation lines, if properly requested, will furnish free transportation for all women duly authorized to travel in the interest of the Fair, who are not paid for their services.

Finally, the report urges great discrimination in the selection of local directors in State work, and that such officers should be invested with "such dignity and importance as will in themselves make the position one to be desired and accepted by the best women with due sense of appreciation and responsibility."

**DEVOTION TO ART**—A cat has nine lives, and spends them all in vocal culture.

### A Quandary.

[Written for the RURAL PRESS by CLARA S. BROWN.]

It would seem that women of the present day ought to have no difficulty in determining how to order all their ways. What they do not know they can readily learn by reading the various domestic journals. The editors of these pay handsome sums to contributors of much fame, who have nothing to do but to sit at their desks and tell their bumble sisters exactly how every task should be performed, and just what are the regulations for healthy and correct living. I acknowledge the existence of these privileges at the present time and hope I am duly thankful for them; yet, for some reason, it may be natural stupidity, the right course is not always clear to my mind. In fact, I am sometimes downright perplexed, and I have decided to lay the case before a discriminating public and beg for a solution of the difficulty. I will select a few items from the sources above mentioned as examples of the instruction which seems so complete and yet leaves me in a quandary. What, in your judgment, is the reason that I am not fully enlightened upon the points mentioned in the items?

"Nothing is better to make a rough skin smooth than glycerine, and vaseline is excellent for sunburn."

"Glycerine makes the skin yellow and vaseline causes a growth of hair, therefore their use cannot be recommended."

"Wash the hair once a week regularly. A dirty head invites disease, while a free use of water makes the hair vigorous and the scalp healthy."

"Many beads of hair are ruined by too frequent washing. Once a month is quite often enough. Use the brush freely instead of water if you would not have your hair dry and harsh. Rub your face until it looks alive; there should be a warm glow under the skin. Keep the pores open with plenty of friction, using soap and cold water."

"Never put soap on your face, and don't treat it as if it were a board to be scrubbed. If you would have a good skin, never use a rough towel, but wipe gently with a soft cloth, always using hot or tepid water."

"Supper should be light and eaten at least three hours before going to bed. Better dispense with supper altogether if you can."

"Sleepless people are recommended to eat a lunch just before retiring—noting rich or unwholesome, of course, but a cup of bouillon or beef tea, some bread and butter, etc. It is a mistake to go to bed with an empty stomach."

"Begin the day with a good hearty breakfast; the system needs toning up in the morning and much more work can be accomplished if you start in with a hearty meal. Never do any sort of work before eating."

"For breakfast eat an egg, a little toast or mush and fruit. Don't overload the stomach in the morning. It is weak then and should receive only food of a light order."

"The oven for your raised bread should be as hot as possible when the loaves are put in and afterward allowed to cool down. Bread baked in this way will not crack open."

"To prevent your bread from cracking, do not have the oven too hot at first, but gradually increase the heat until the loaves begin to brown. Too great heat at first will form a crust over the loaves before they have risen sufficiently and then they will burst."

"I might go on indefinitely, but the above extracts, I think, will make the situation clear."

### Chaff.

**KLEPTOMANIACS** have a taking way with them.  
NEVER dodge a difficulty; go at it and conquer it.

**LARGE** checks are always fashionable for lawyer's suits.

**Mrs. Cumeo**—Well, Harry's wife is certainly a thing of beauty. Cumeo—I hope she won't be a jaw forever.

**Ir** a man serves him faithfully six days in the week the devil doesn't care whether he goes to church on Sunday or not.

**SMILEY**—Now, remember, I don't want a very large picture. Photographer—All right, sir. Then please close your mouth.

**A MAN** always feels a great deal sicker when the doctor has called his disease by a high-sounding and unfamiliar Latin name.

**EMPLOYER**—"Well, Patrick, which is the bigger fool, you or I?" Patrick—"Faith, I couldn't say, sir, but it's not myself."

"I do like crying children," the bachelor said. "And why?" a friend asked, "should you like them?" "They're sent out when they cry."

"He pressed her to his breast and sighed," read the elocutionist; and the boy in the gallery brought down the house by yelling; "Which side?"

**IN EVIDENCE**—Judge—Prisoner, have you any viable means of support? Prisoner—Yes, sir, Your Honor (to his wife)—Bridge, stand up, so that the court can see yez.

"In the scheme of creation," "woman was an afterthought." "Yeth," remarked the sleeping imbecile, "and she's been thought after ever thimble."

**A SOLICITOUS Daughter**—Old Gentleman (at head of stairs)—Sally, ain't it about time to go to bed? Sally—Yes, father, dear, don't put it off another minute, your health you know, is not robust.



## Man and Land.

I knowed a man, which he lived in Jones,  
Which Jones is a county of red hills and stones,  
And he lived pretty much by gittin' of loans,  
And his mules was nothin but skin and bones,  
And his bogs was flat as corn-bread pones,  
And he had 'bout a thousand acres of land.

This man—which his name it was also Jones—  
And swore that he'd leave them old red hills and  
stones,  
Fur he couldn't make nothing but yallerish cotton,  
And little er that, and his fences was rotten,  
And what little corn he had, hit was boughten,  
And dinged if'er livin' was in the land.

And the longer he swore the madder he got,  
And he riz and walked to the stable lot,  
And hollered to Tom to come thar and hitch  
Fur to emigrate somewhar whar land was rich,  
And to quit raisin' cock-burs, thistles and sich,  
And a quit raisin' thar time on the cursed land.

So him and Tom they hitched up the mules,  
Pertesting that folks was mighty big fools,  
That 'ud stay in Georgy ther lifetime out,  
Jest scratching er living when all 'em mout  
Git places in Texas whar cotton would sprout  
By the time you could plant it in the land.

And he driv' by a house whur a man named Brown  
Was a livin' not fur from the edge o' town,  
And he hantered Brown fur to buy his place,  
And said that hein as money was skace,  
And hein' as sheriffs was hard to face,  
Two dollars an acre would git the land.

They closed at a dollar and fifty cents,  
And Jones he bought him waggins and tents,  
And he loaded his corn and wimmin and truck,  
And moved to Texas, which it tuk  
His entire pile with the best of luck,  
To git thar and git him a little land.

But Brown moved out on the old Jones farm,  
And he rolled up his breeches and bared his arm,  
And he picked all the rocks from off the ground,  
And he rooted it up and plowed it down,  
Then he sowed his corn and wheat in the land.

Five years glid by, and Brown one day  
(Which he'd got so fat that he wouldn't weigh)  
Was a settin down, sorter lazily,  
To the bulliest dinner you ever see,  
When one of his children jumped on his knee  
And says, "Yan's Jones, which you bought this  
land."

And thar was Jones, standin', out at the fence,  
And he hadn't no waggins, nor mules, nor tents,  
For he had left Texas afoot and cum  
To Georgy to see if he couldn't git some  
Employment, and he was looking as hum  
Ble as if he had never owned any land.

But Brown he asked him in, and he sot  
Him down to his vittles smokin' hot,  
And when he had filled hisself and the floor  
Brown looked at him sharp and riz and swore  
That "whether men's land was rich or poor  
Thar was more in the man than thar was in the  
land."  
—Sidney Lanier.

## The Tower at the World's Fair.

Passing the Woman's building, the visitor  
can turn toward the northeast and inspect the  
foreign and State buildings in the northern por-  
tion of the park, of which he is supposed to  
have caught a general view from the steamboat  
dock, or he can turn sharply to the west into  
Midway Plaisance and ascend the Proctor  
tower. This will be constructed of steel and  
be 1050 feet high, or about 100 feet higher  
than the Eiffel. From its top the view obtain-  
able of the Exposition grounds and buildings  
and of the great city lying to the northward  
will be magnificent beyond all description.

West of the tower, along the Plaisance and  
overflowing into Washington Park, will be a  
large and carions aggregation of structures,  
including probably some of the foreign and State  
buildings, and many of semi-private construc-  
tion and of a nature that cannot yet be de-  
scribed. Almost innumerable structures and  
exhibits, such as reproductions of famous build-  
ings, etc., most of them novel and striking in  
character, have been proposed, and it is not  
yet possible to tell how many or which of them  
will be erected. That there will be an aston-  
ishing array of them there can be no doubt,  
and unquestionably some of them will be im-  
portant and exceedingly interesting features of  
the great fair.

All of the important buildings will stand on  
terraces four feet above the general park level,  
thus greatly improving the general landscape  
effect and rendering their own appearance more  
imposing. From scores of domes and towers  
and minarets, flags and streamers will be float-  
ing, and both the exterior and interior of the  
building will be "warm" with a liberal dis-  
play of color. The beautiful park, with its  
magnificent array of architecture, will surely  
present one of the finest spectacles the eye of  
man ever beheld.

As the dead body shall be raised up in life  
so also the defeated soul to victory, if only it  
has been fighting on the Master's side, has  
made no covenants with death, nor itself  
bowed its forehead for the seal. Blind from  
the prison house, maimed from the battle or mad  
from the tombs their souls shall yet sit, aston-  
ished, at His feet, who giveth peace.—Ruskin.

"Did you ever have longings—almost irre-  
sistible longings—to reach after the unattain-  
able?" "I can't say that I have. Whenever  
my collar button gets down my back I know  
it is no use trying to reach after it. I simply  
undress myself and let it come out the other  
end."

## YOUNG FOLKS' COLUMN.

## Beautiful Sunshine.

[Written for the RURAL PRESS by A. T. DAVIDSON.]

One dark, cloudy day, when on our way home,  
The sky's pretty blue was hidden in gloom;  
The prospect was dreary, the view incomplete;  
But some then pointed adown the long street,  
And said as the light drifted through to the line,  
"Just look straight ahead and you'll see the sun-  
shine."

CHORUS.

"See the sunshine, see the sunshine, see the sun-  
shine,  
Beautiful sunshine!  
Look straight ahead and you'll see the sunshine."

Oh, beautiful thought! Let us treasure it well,  
'Twill be to the cause of low spirits a knell;  
'Twill train the young mind to a pleasanter mood;  
'Twill be the upholding of all that is good.  
Then come to me joy in this full cup of mine,  
I'll look straight ahead to the cheery sunshine.

CHORUS.

Cheery sunshine, cheery sunshine, cheery sunshine,  
Beautiful sunshine!  
Look straight ahead to the cheery sunshine.

## Such Fun.

Dirk, though grave, was much the most  
comfortable of the three. The truth is, Dirk  
knew he was in the line of duty, which was  
more than can be said of Tommy. It fact,  
Tommy was perfectly well aware that he had  
taken a very zigzag road as regards duty that  
April afternoon. I'll tell you how it was.

Tommy was in room No. 4 of the primary  
school, and had taken his little sister with him  
that afternoon as a treat. All the scholars  
considered it a treat to have that queer, oun-  
ning little Susie visit the school; in fact, every-  
body thought so except the teacher, who  
always gave a weary sigh, and asked for special  
grace, when she saw the little roly-poly making  
her way across the lawn. Not that Susie in-  
tended to be naughty; no earnest little woman  
of her size ever went to school with a more  
fixed determination to be perfect; the trouble  
was, Susie could never be made to understand  
why she should whisper what she had to say,  
instead of speaking out in a good, clear tone;  
moreover, she did not see why she could not  
ask all the questions she wanted to, when  
there were so many new things about which to  
talk.

On the whole, I do not think it surprising  
that Miss Waters generally found some good  
reason for giving Tommy a reward on the days  
when he brought his little sister to school, and  
allowing him to go home nearly an hour earlier  
than his usual time. On this particular April  
day she had done so, and it was this, among  
other things, which made Tommy determine to  
take a walk before going home.

"Mother said come right straight home from  
school, but then she did not know I was going  
to get out so early; that would make a differ-  
ence, of course." This he explained carefully  
to Susie, who trotted beside him, perfectly in-  
different as to whether she had started for  
home or for the world's end, so long as she was  
with "Bruvver Tommy." As for that young  
man, a great temptation had presented itself to  
him as he crossed the schoolroom yard, where  
certain of the big boys were gathered, chatting.

"Boys, do you know what a comical little  
dude that Tommy Stautz is?" Willie Ferry  
asked, just as the children came in sight. "He  
will believe anything you tell him, no matter  
how absurd. I've tried him with the most  
ridiculous things, that a child of three ought to  
know were nonsense; he will open his round  
eyes, and swallow them down every time. I'm  
going to give him a dose of fun this after-  
noon; that rainbow gives me an idea."

There it was, glowing in the April sky in all  
its beauty, while the raindrops on the grass  
were reflecting its glory as well as they could.  
It seemed beautiful enough to have given Wil-  
lie a better idea than he had. "Halloo, little  
chap!" he called, arresting Tommy's attention,  
do you see that rainbow? Well, did you know  
that if you went to the end of it you would  
find a pot of gold? Yes, sir, that's so, they  
say. I never went, because it is quite a walk,  
and I don't have time. Besides, I have all the  
money I want now, and don't care to take the  
trouble."

"Oh, my!" said Tommy, "mother hasn't;  
she wants money bad; she said so this morn-  
ing."

"Just so; then I should think you and Susie  
would go and find the pot of gold for her; she  
would like that first rate."

"Maybe it would be too far for Susie?" sug-  
gested Tommy, with a wistful air.

"Oh, no!" said Willie reassuringly; "she is  
a sturdy little thing, and wouldn't mind a  
walk like that. I'd go this very day if I were  
you; that is an unusually bright rainbow. I  
think the pot of gold must be very large this  
time; don't you think so, boys?"

You may think it strange that half a dozen  
intelligent boys, some of them almost old  
enough to be called young men, should have  
seen anything amusing in such silly falsehoods  
as these, but boys are queer, some of them;  
these all seemed to be ready to snuff out with  
laughter, and, to a boy, gave their opinion that  
the pot of gold would undoubtedly be large.

The end of it was that Tommy grasped his

sister's hand and trudged away, determined to  
find it for his mother before he slept.

"Did you ever hear the like?" shouted the  
boys, bending themselves double in their glee.  
"Just as I told you," said Willie; "that  
chap will trudge miles, I dare say, in search of  
the treasure, his eyes growing bigger every  
minute; he is the most credulous little dunce I  
ever came across."

"Perhaps he will really go too far with that  
baby sister of his, and get lost, or come to  
grief in some way," ventured Robert Hall, one  
of the younger of the group of boys.

"Poh!" said Willie, "no, he won't; she is  
used to long walks; when the rainbow fades  
away he will give it up, of course, and come  
back a sadder and wiser boy. It is a good  
April-fool joke. It is such fun to see his eyes  
grow big while you are telling him a yarn."

Then they dismissed Tommy and Susie from  
their minds altogether, and went back to the  
plans they were arranging for the evening. It  
would be a long story if I should tell you of  
poor Tommy's vigorous efforts to find that pot of  
gold. He trudged bravely on, although he came  
no nearer the end than when he started, and yet  
could not understand how that was possible; he  
got caught in a shower and in a marshy piece of  
ground, where he had to carry Susie across,  
filled his stout little boots with mud so that  
he had to abandon them altogether and make  
the rest of the journey barefoot; and after all to  
fail, was bitter. What they would have done  
at last, as the April twilight began to fade, I  
do not know, if the mother at home had not  
grown alarmed about their long absence and  
sent the faithful Dirk in search of them. For  
the truth was, that Tommy, in some of his  
turnings, had lost the road, and did not in the  
least know the way home. Dirk did, however,  
and never was dog more joyfully hailed than  
when he found the two sitting under a great old  
tree with Tommy's battered sun-umbrella over  
them, trying to escape from the great drops of  
another April shower. It was what Tommy  
calls "pitch dark" when they finally reached  
home, covered with mud, and Tommy without  
shoes or hat; for a gust of April wind carried  
his hat away down stream, while he was carry-  
ing Susie across it on a log.

What happened to Tommy for his folly and  
disobedience I will leave you to guess; but I  
will tell you what happened to Willie Ferry.  
The Ferrys lived just around the corner from  
the widow Stautz, and had known about her  
trouble, and tried to help her; so of course  
they inquired closely into the matter when the  
children reached home. Tommy told the  
whole story from the beginning.

"Now, sir," said Mr. Ferry to his son, Wil-  
lie, "you have had your fun, it seems, accord-  
ing to your own ideas; you can take this lan-  
tern and finish up the job. Out somewhere  
between the Wheeler place and the old mill  
Tommy Stautz left a good pair of shoes stick-  
ing in the mud; you may go in search of them,  
clean them and take them home."

"Why, father!" said Willie, aghast, "you  
can't mean to-night? It is two miles out to the  
Wheeler place, and it is as dark as ink, and  
raining besides."

"I know it; and it is the road that little  
fellow and his baby sister took this afternoon  
under your direction. He needs his shoes, and  
you are the boy who is going to find them."

"But, father, I can't go to-night; it's the  
business meeting of our society, and I'm secre-  
tary."

"I am sorry for that," said his father, firmly,  
"but pleasure before business has evidently  
been your motto to-day; and you say it was  
'such fun' to cheat that little fellow, you  
ought to be willing to complete your own job.  
Whether you are or not it will be necessary to  
do so. Remember, you are under orders to  
find those shoes, clean them, and carry them  
home, before you attend a business meeting or  
any other meeting."

As Willie Ferry trudged along through the  
mud and rain that disagreeable night, in search  
of the lost shoes, it is to be hoped he planned a  
more sensible and honorable way of having fun;  
but I don't know whether he did or not.  
Some boys are queer.—Myra Spafford in the  
April Pansy.

SUBMARINE BOAT.—The French submarine  
boat Gymnote was recently tested in Tonlon,  
and demonstrated its ability to pass through a  
hullockade line and escape attention in spite of  
systematic efforts to watch, trace or discover  
its course. It plunged and remained under  
water 40 minutes, then rose to the surface at a  
distance of more than two miles and a half  
from its point of departure, having passed under  
the watched line of demarcation without being  
seen. It again crossed the line, but this time  
two of the parties on the lookout got a glimpse  
of it—not, however, sufficiently distinct to en-  
able them to trace and pursue it. The course  
of the boat was in both instances rectilinear.

A WOODMAN'S TEST FOR AXES.—A hint which  
may be serviceable to ax-manufacturers as well  
as buyers was given by an experienced Australian  
bushman to a new ohm. "It may be useful  
to you when you go into a store to buy an ax.  
Take out your pocket-knife, open it, and hold  
it as if you were going to sharpen a pencil, but  
with the back instead of the edge toward you.  
Then run the back of the knife gently over the  
edge of the ax. If the edge turns ever so little,  
so that you can just feel it, the ax is all right.  
If it won't turn, it is too hard." Trying an  
English-made ax lying at hand, he said, "That's  
no good." The edge would not turn.

## DOMESTIC ECONOMY.

## Asparagus.

This is a delicate vegetable and yearly in-  
creasing in popularity. Indeed, a surplus in  
the market is a rare thing. The tough portion  
at the base, when the vegetable has been suf-  
fered to grow a day too long, should be broken  
off before cooking. Cut in bits and boiled it  
gives a stronger flavor to the edible portions.

*Asparagus Soup.*—Take the tender stalks of  
the asparagus, cut them into short lengths,  
wash, and lay them in your kettle. To one  
quart of cut asparagus add a quart of boiling  
water and salt to taste, and let it boil for one  
hour. Make dumplings the same as for cream  
of tartar biscuit. Drop the dough in with a  
spoon over the surface of the soup. Have  
ready a quart of boiling new milk, and when  
the dumplings have had time to cook, turn in  
the boiling milk, shake it a moment, then dish  
it into the soup tureen. This is an excellent  
soup for early spring use.

*Asparagus Salad.*—Boil the asparagus,  
drain, and arrange the stalks so the heads will  
lie in the center of the dish, then scantily  
cover with vinegar. Carefully pour off the  
vinegar in half an hour, add melted butter,  
salt and pepper, beat well and return to the  
asparagus.

*Asparagus and Eggs.*—Boil the tender parts  
of asparagus in a little salted water; when  
done drain and chop fine. Have beaten eggs  
according to quantity of asparagus. Put the  
asparagus into a saucepan in which is melted  
butter, pour in the eggs and cook three min-  
utes, stirring to prevent from burning.

*Fried Asparagus.*—Scrape and boil two or  
more bunches of asparagus. Take up, drain,  
mix in egg batter, and fry in boiling lard.

*Asparagus on Toast.*—Cut the stalks in  
lengths of about four inches, tie them in small  
bunches, wash clean, and put to boil in a small  
quantity of boiling water and let it slowly boil  
for half an hour. Have ready slices of toast  
laid upon small plates, then boiling cream and  
butter poured over them, and upon each slice  
of toast lay a bunch of asparagus. Set one to  
the plate of each individual. This is a very  
appetizing supper bit.

*Cream of Asparagus.*—Boil three bunches of  
asparagus in two quarts of water until tender  
enough to rub through a colander. To this  
pulp add part of the water in which the aspa-  
ragus was boiled, a pint of milk and as much  
cream, two tablespoonfuls of butter, salt to  
taste, a little white pepper and a dash of cay-  
enne. Thicken with cornstarch.

*Asparagus in Rolls.*—Wash a quart of aspa-  
ragus tops, boil 20 minutes in salt water and  
drain. Cut the tops off eight or ten stale tea  
rolls, take out the crumbs, and set the crusts  
with the tops in the oven to dry. Put a pint  
of rich milk on to boil, beat three eggs, and  
stir in the milk until it thickens, add a table-  
spoonful of butter, a little salt and pepper, take  
from the fire; chop the asparagus tops, and add  
to the milk. Take the rolls from the oven, fill  
them with the mixture, replace the tops and  
serve hot.

*Asparagus a la Pompadour.*—Boil the aspa-  
ragus in salt and water; when cooked, cut it  
into lengths of about three inches; after drain-  
ing them let them lie before the fire a few min-  
utes. Next take one ounce of fresh butter, two  
yolks of egg, a pinch of salt, a saltspoon of pep-  
per and a tablespoonful of vinegar; cook in a  
saucepan till thick, dish up in a pyramid and  
pour over the liquor.

*Asparagus Pudding.*—Boil the green tops of  
two bunches of asparagus until tender; cut in  
small pieces. Put a spoonful of butter in a  
saucepan and set on top of the stove; when  
melted, add four eggs well beaten, with a cup-  
ful of milk and a little salt and pepper. Stir  
and beat the mixture, adding gradually four  
tablespoonfuls of flour. Cook smooth, add the  
asparagus, turn into a well-buttered mould,  
plunge into a kettle of boiling water, or set in  
a steamer and let cook two hours. Serve in a  
pudding dish with cream sauce.

PINEAPPLE PUDDING.—Ingredients: One  
pint of milk, six eggs, six ounces of sugar, six  
sponge cakes, a tin of preserved pineapple and  
three ounces of dried cherries. How to use  
them: Butter well a pudding mould and orna-  
ment the top with dried cherries and pieces of  
pineapple; put in the sponge cakes (broken in  
pieces) and some more pineapple (broken in  
small pieces); into a basin put the milk, the  
sugar and the eggs; whisk all together until  
the sugar is dissolved, then add the syrup of  
the pineapple to it; turn the mixture over the  
sponge cakes in the mould, cover with buttered  
paper, and steam one hour and twenty minutes.  
Chop the rest of the pineapple very fine, turn  
the pudding on to a hot dish, place the pine-  
apple around it and serve immediately.

PINEAPPLE PIE.—Cut a medium-sized pine-  
apple fine, add a teaspoonful of sugar and the  
same amount of milk or cream, a tablespoonful  
of butter (or two if milk is used), the well-  
beaten yolks of five eggs, and when ready to  
put into the pastry-lined pie-plate, the five  
whites beaten to a froth. Bake with one ornament.

CANNING CLAMS.—EDITORS PRESS: Could  
you find out for me how to can clams and mu-  
sels so they will keep for the winter? You can  
write it down in the Domestic Economy list in  
the PACIFIC RURAL PRESS, and oblige—Mrs.  
J. C. WATERBURY, Creston.





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W. B. KWER.

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## Business Announcements.

[NEW THIS ISSUE.]

California State Fair—State Board of Agriculture. Wagons—Baker & Hamilton. Dish and Clothes Washers—S. B. Palge. Fruit Graders—D. D. Wren. Barley Graders—M. L. Merry, Chico. Insurance—Fireman's Fund Insurance Co. Driving Bits—Racine Malleable Iron Co., Racine, Wis. Business Instruction—San Francisco Business College. Agency to Loan—Mercantile Agency and Investment Co. Business Academy—T. S. Bowen. Situation Wanted—Orchardist.

See Advertising Columns.

## The Week.

May, this year, goes upon record as a month with about twice the normal May rainfall, at many points at least. Fortunately the first reports of damage to hay, grain and early fruits were found to be exaggerated, as is usually the case. No doubt some suffered severely, but the general damage was not great. Probably Lient. Finley is not far from right when he says: "While the occurrence of rain has been beneficial in many instances to agricultural and horticultural interests, yet considerable damage has resulted from excessive precipitation, high winds and low temperatures. It is believed, however, that less damage has resulted in California than would have followed the prevalence of hot northerly winds."

Fruit is now going forward rapidly by car-load. Fourteen car-loads of fruit were ship-

ped from Vacaville last month as against five car-loads during the same period last year. Other producing points are also shipping by car-load.

The dairymen have formed a Union as is fully described upon another page. May it rebound to their advantage. There is need for such action.

## Better Newspapers.

We often wonder how a people so intelligent, so well behaved and so full of aspiration will tolerate such a low tone in public journals as that which seems to characterize the most successful of them. If the man in the moon should come tumbling down and onshion on a knot of newsboys, he might infer from their wares that the mundane mind was chiefly occupied with the basest affairs, and the chief worldly transactions were hideous crimes; and yet this is not true. People are not so bad as the things they read, although there may be a progression toward that result, as is often claimed.

It is gratifying to find that vigorous protests are made against prevailing policies in journalism, and we can but hope that if they are made vigorously and persistently enough, a change will come. In a report of some remarks recently made by Mr. J. C. Stobbs of this city at a banquet, we find this notable paragraph:

"We may well wish that the daily press, for the good of the community and its own sake as well, would pursue its great work on the same lines. Instead of feeding us with the history of man's crimes, with accounts of murders and suicides, the details of public and domestic scandals, slogging matches and dog fights, that, if only at intervals, for short, restful periods, it might chronicle only the good that men do, the record of public virtue, the progress of civilization in the discoveries of science, the achievements of art, that it should permit us as a community to look only upon the pleasing features, the improving, elevating incidents of society. Why may we not have a spring-time, when the bare earth of organized society shall be covered with the verdure of man's doings for his fellowman; when the thorns of vice shall be hidden by the leaves of virtue; when mankind shall be regaled with the fragrance of the good deeds which are thickly strewn along his path—the living, blossoming mile-posts, marking his advance toward a higher state. We should be better for it."

Most assuredly; and yet the papers, apparently oblivious of any responsibility which may inhere in them as molders of public opinion and promoters of morality, persist in heralding the base, the brutal, the inglorious, the criminal, and if a ray of virtue shines at all, it must pierce its way through such clouds as these.

## What the Business Costs.

It is seldom we get an idea of the actual cost of doing railroad business, and therefore only occasionally do we get any data for measuring the imposition which high freight rates are upon the producing and trading community. There has been a little knocking out in the railroad centers in this city, and one man who has for a score of years been manager of one branch of the great system has been summarily displaced, much apparently to the dissatisfaction of some of his old associates. According to the deadly work of the interviewers one of the managers who had not been consulted in the change and was apparently displeased with it, recounted the idea of the incapability of the man who was removed using, according to the reporter, these words: "Any railroad manager who could show operating expenses as low as 46 per cent of the gross earnings must be a capable man, as 50 per cent is considered an excellent showing for any road, while 70 per cent is common."

Now, we do not know all the fine points about railroad management, but we infer that when operating expenses are 46 per cent of the gross receipts, the profits are 54 per cent. If this is so, it begins to be plain why railroad managers so quickly become millionaires, and it also shows how sadly the producer and merchant are mulcted. Why, such a percentage beats pawn-broking. No wonder the people complain. The only wonder is, that everybody is not ruined by it.

NOT THE HOP LOUSE.—Alexander Craw, entomologist of the State Board of Horticulture has just returned from examination of the hop-fields around Sacramento, and reports that the aphid, supposed to be the hop fly, is the common grain louse. He also found the cabbage louse and the plum louse in the vicinity of some of the hop-fields, but none on the vines.

## The Future.

Sir Charles Dilke, in a recently published work in two volumes, entitled "The Problems of Great Britain," expresses the belief that in the future the world will be practically divided between the Anglo Saxon, the Russian and the Chinese. If the present rate of increase both in numbers and wealth is kept up, the French and German nations will appear as pigmies beside the all-conquering Anglo Saxon. The German surplus of population has largely overflowed into boundless America, and to all intents and purposes becomes Anglo Saxon. How many millions of people there are in the United States whose names alone indicate their Gallic or Teutonic origin. How many more in Great Britain and her provinces. Had Sir Charles Dilke's prescience reached far enough, might he not have made the statement that the Anglo Saxon is the coming race? Russia, it is true, while old in years, is young in progress. Her awakening is that of a young athlete. Her power is physical. Something more is needed if she is to keep step with the Anglo Saxon and rule the world or divide it into three parts; yet Sir Charles Dilke's predictions may be verified if Russia is content to work out the possibilities of her now practically endless domain. The autocratic rule of the house of Romanoff will be modified before the next generation has passed away. Then, and not before, Russia's future greatness or weakness may be foretold.

We may fairly suppose that Sir Charles Dilke sees the Chinese through other lights than we who know them as a sort of human teredo.

China has vast areas of unoccupied territory which will in time be occupied, if not by Chinese, perhaps by Russians. China, unlike other nations, loses nothing to the Anglo Saxon through emigration; wherever a Chinese emigrant is found he is a Chinaman. If the great wall of China is ever rebuilt, it will be done by the rest of the world; its purpose will be to keep the Chinese in and a thorough job will be made of it.

## Wool Interests in Washington.

It is telegraphed from Washington that Columbus Delano and Judge Wm. Lawrence of Ohio, representing the National Wool-Growers' Association, held a conference with the Secretary of the Treasury on June 1st upon the subject of certain matters in which the wool tariff was used to the disadvantage of home products of the article. They wanted a readjustment of the series of valuable parts imported. It is demanded that the duty be levied as if upon the whole fleece and "skirting" be stopped. Another matter complained of was a speech said to have been delivered by Consul Griffin, the representative of this country at Melbourne, Australia. In that speech Mr. Griffin is reported as saying that he was making every effort in his power to have the United States tariff on wool repealed, so that the Australian wool-growers would have an unrestricted market in this country. The wool-growers' representatives showed Secretary Foster a copy of a Melbourne paper in which the speech was reported, as stated, and afterward exhibited the same to President Harrison. If the Consul were correctly reported, they thought that he should be removed, and urged the same upon the President. The latter promised to look into the question.

## California Dairy Scenes.

We give our first page this week to a number of attractive views pertaining to dairying in California, which are welcome, not alone for their industrial significance, but as breathing the country air, which even city folks consider delightful at this season of the year. The engravings are reproduced from the May issue of the popular California magazine, the *Overland Monthly*, and form a part of the excellent dairy articles published by that periodical, to which we referred in a recent issue of the *RURAL*. At another time we shall present other views, mainly illustrative of local dairy practices, accompanied with a part of the very excellent descriptive article by the *Overland* writer. We are glad, as we remarked upon a previous occasion, to see agricultural matters receiving prominent place in a well-known literary periodical.

## QUERIES AND REPLIES.

## How to Destroy the Woolly Aphis.

EDITORS PRESS:—There has appeared of late considerable inquiry in the Press for remedies against the ravages of the woolly aphis. In a former number of the *RURAL* I am quite sure I gave my experience in destroying this pest, but as the object is of importance it will bear repetition. Simply whitewashing all parts of the tree from the ground up to the small branches with a wash, the same as is used for ordinary whitewashing, with the addition of some strong wood ashes and a little salt, will effectually clean the trees of this pest and prevent their return. Besides this, whitewashing the trees will clean them of all other pests, moss, rough bark, prevent sun-scalding and add greatly to the beauty of the trees.—J. S. TIBBIS, Muskegon, Mich.

## Double Peaches.

EDITORS PRESS:—In issue of May 2d, L. B. D. of Monterey writes for information on the subject of "Peaches Doubling," and asks if "some kinds are more disposed to doubling than others." I find that this is the case, and as with him, the Early Crawford are much more inclined to put forth double fruit than any variety I have. As to a remedy, I know of none, and doubt if there is any available to human hands, as I think that it is caused by the influence of the past season in which the fruit buds were formed. He also asks if "some varieties are free from this overdoing business." I find that the Wager, which ripens about ten days later than the Crawford, is nearly free from the habit; in fact, I might say it is quite free, as it is only now and then that you will find a double peach on the tree I have; also another peach, a seedling which ripens still a week later than the Wager, which is nearly free from the habit, but not so much so as the Wager; but as it is a seedling from the Crawford, perhaps that is the reason that it has some double fruit upon it; still, it is not bad, as there is generally enough single fruit on the tree for a good crop, and we pick the double ones off.

Speaking of fruit doubling, I notice a great many of my grapevines are putting out two and sometimes three shoots from one bud, and each shoot shows two bunches of grape buds, making six bunches in all from one bud. There is a prospect of a heavy yield of grapes if the season keeps favorable to the present outlook, and not only for grapes, but all other fruit gives promise of a good yield here in the mountains.

We have had quite a rain yesterday and today; about .75 of an inch have fallen, and it looks as though we might get more to-night. This will be bad for the hay that is out, but the most of the crop is late in this section, and will be benefited by the rain; besides, many of the fruit-growers are a little late with their plowing, and this rain will help them to get their land in good condition.—W. W. WATERMAN, Laurel, Santa Cruz Co.

[Thanks. Probably the only way to handle the double peach is to take them off at thinning, as our correspondent mentions.]

## Phosphorus Squirrel Poison.

EDITORS PRESS:—I have made a gopher poison with phosphorus, flour and wheat according to the directions found in several papers, but the mixture does not get hard and consequently is hard to handle. Please inform me through the *RURAL* if drying by artificial heat would diminish or destroy the force of the poison.—E. S. W., Aptos.

We never had this difficulty, so cannot speak from experience. Heat would not hurt the mixture if it was of degree low enough not to ignite the phosphorus; but why not dry the mixture, by using more flour? Will some one who is practically acquainted with the subject, help our correspondent out of his difficulty?

## Reports and Bulletins.

EDITORS PRESS:—Will you please inform me through the columns of this week's *PRESS* to whom the Agricultural Reports and Bulletins are sent. Whether only to statistical correspondents, or to any that apply.—FARMER, Stockton.

This question is indefinite because there are so many official publications in the agricultural interest. Usually copies can be had by any one who applies, as follows: For U. S. Department of Agriculture, Hon. J. M. Rusk, Washington, D. C.; University Experiment Station, E. W. Hilgard, Berkeley; State Board of Agriculture, E. F. Smith, Sacramento; State Board of Horticulture, B. M. Lelong, 220 Sutter street, S. F.; State Board of Viticulture, O. J. Wetmore, 317 Pine St., S. F.; State Board of Forestry, Sands W. Forman, 25 Flood Building, S. F.

FRUIT SHIPPING.—Mr. H. A. Fairbank, who has been widely known during the last few years as Secretary of the California Fruit Union, has opened an office in Sacramento, where he will operate in fruit lines during the shipping season. Mr. Fairbank is the local representative of the following well-known Eastern firms: Sgobel & Day, New York; Maynard & Child, Boston; F. Nickerson & Son, Chicago. We trust Mr. Fairbank will be able to do his full share in the disposition of our great fruit surplus, and be himself advantaged thereby.



## RURAL IMPROVEMENT.

## Trees and the Village.

[Not's from an address by C. H. SHINN of the University of California at San Lorenzo, Alameda county, May 19, 1891.]

I have been asked to address the people of San Lorenzo upon something that belongs to the village improvement idea. This is a broad field. One could easily be statistical and assault you with facts. The Duke of Argyle planted many hundred thousand larches, at a cost of one-third of a cent apiece, and now that he is dead his grandson is making his everlasting fortune by selling larch timber to the English Government. Very true, very instructive, and extremely ill-adapted to the present occasion, which must deal with the living present, not with Scotch larches or British peers.

Village improvement work is worth any one's while. The English-speaking races are land-lovers, land-getters, land-keepers. When they are sufficiently educated and refined, they surpass the people of all other races (except our brother race of the Germanic stock) in their capacity to make gardens, orchards and great landscape effects. English parks and avenues are not equaled anywhere else in Europe. In scientific forests the Germans are ahead, but that will not always be so. France, Italy, Austria are full of magnificent landscape gardening and of grand old forests. But England remains the most splendid illustration of what our race can do in the field which ever broadens and becomes more important as the world grows older.

Increased demand presses hard on supply. The time is coming when every forest must justify itself by its timber yield, when every field and hillside from Alaska to Patagonia must give something, no matter how scanty, for the food, the clothing, the shelter of the teeming millions of a world in which disease is lessened, life is made longer, universal peace reigns, and "star-eyed avarice" becomes more and more a daughter of the earth, a helper of humanity.

A world-artist of this future time will be the landscape gardener, shaping into undreamed of harmonies the plantations of village, town and city, the trees of the streets, the forests by the banks of rivers and sloughs, the copse of the wild ravines. Every county or other home-governed political division, in those days, will have its thoroughly trained landscape gardener, as, in some sense, an officer of the State, to guard against outrageous infractions of the laws of tree-harmony. But those laws will be so well understood by the community, and so generally accepted, that the landscape gardener will be only the adviser and helper, the outdoor architect, and, under his supervision, houses, streets, village, fields, farms, orchards, will at last become a perfect whole, and full to overflowing with the charm that always dwells in the higher harmonies.

The word village is a sweet, simple and beautiful old name for a thing that is worth having and worth fighting for. Village-dweller, town-dweller, city-dweller—of the three, the first, in these latter days, may well fill the larger place. It is that life which men have agreed to call suburban—half city, half country—that combines the greatest advantages in kind and degree. The villager who still keeps in touch with the life of a city is more apt to move in the greater currents of national life and of world-life. Thinkers, inventors, leaders, great soldiers, statesmen, poets, masters of time and circumstances—these come more often from the kind of plain, healthy country-life that is never quite divorced from urban activities. Upon this life the great cities draw forever, or they would perish in a generation.

Now a village can be made beautiful with a beauty that is more durable than granite. It can not only inspire its own people, but it can be a joy and an honor to the commonwealth.

First, there is the beauty of names. "Street"—that is stiff and ungainly; "Jones Street," that is positively ugly. The English speech has many better names. We want lanes, roads, paths and all the rest; we want the historic Indian and Spanish terms to stay in our country-side. The stately old Spanish explorers and pioneers who settled the infant colony must not be ignored for lackadaisical real estate titles from boom-land.

Secondly, there is the beauty of cleanliness, of weedless roadsides, of as few fences as possible, general carefreeness and sightliness.

Thirdly, there is the beauty of trees for shade, for avenues, for blossoms, for wayside fruitage. This of itself is a chapter. If I could wish a sudden gift of superb trees to San Lorenzo, and wish it so deftly and well that tomorrow morning the trees would be in full maturity here—what think you I would choose for it?

Mind you, they should be century-old at least. Along your main roads deciduous trees of cleanly habit and harmonizing foliage, some nut-bearing, some chiefly planted for flowers, and all set somewhat irregularly, occasionally in clumps of three or five. Among these trees I see *Salisburias* fifty feet high, the purple-leaved and the common *Buohes*, *Walnuts*, *Tulip trees*, *English Oaks*, *Peonies*, *Ems*, *Maples*, and many others. *Redwoods*, *Sequoia* gigantes and other native conifers find an occasional place. A few masses of golden *Acacias* give

spring-tide color. Choice native shrubs and the best of the exotics fill spaces occasionally, not in set rows, but in copses and small groups. A few of the grander palms are used to complete the climatic scale, but care is taken to avoid the deadly monotony of too many straight rows of Palms, Peppers, *Grevillias*, *Eucalypti* and *Magnolia grandifloras*. On that rock the beauty of many a colony village has been wrecked. Parts of Southern California look as if the Creator had only sent out Palms, Peppers, *Grevillias*, *Eucalypti* and *Magnolia grandifloras*.

I wish Californians would "brace up" and learn to have some little faith in our native trees and shrubs. The finest tree of its age in Alameda Co. is a native live oak (*quercus lobata*), 24 years old, planted by old Captain Scott, near Niles. It is a grand tree, perfect in shape, large enough now to shelter a very respectable cottage, and evidently just beginning a useful career of five or six hundred years at least. The Douglas spruce, the Lawson cypress, the *Librocedrus decurrens* and the two *sequoias* deserve planting here as much as the *Deodar* and the *Cedar of Lebanon*.

One fine specimen of a tree is better a thousand-fold—better for you, better for the village and the State—than a thousand hastily planted, poorly cared for trees. One oak that may last more than a thousand years; one redwood, to become, perhaps, the famous tree of our valley in times when the forests are swept away and none of equal size are left; one beech tree to recall to the thoughts of men the giants of ancient Denmark—these were better worth your labor than long rows of smug poplars or lachry-mose willows that perish after their kind.

If you plant in the true spirit—the Aryan spirit of love and reverence for the forest, and for every tree and every growing thing therein—you cannot fail nor go astray. Out of the depths of the forests the great solitudes, the vast shelters, the green silence—all that our race knows—has somehow come. There our ancestors met and conquered the Roman legions; there they gathered the tribes together and made the beginnings of nations; there the songsmiths hammered out their sagas and wove the tale of the *Volungs* and the *Nichelungs*; there, in old time, the houses of our folk were built in the glades by the oaks, the strong places whence the war-hosts went forth. When we plant a tree in these days, that have gone far afield from the days of Goth folk and Saxon folk, we plant that which may become, in the fullness of time, a tree to which nations shall make pilgrimage—an oak of the charter, a plane tree like that which still stands by the Cave of Machpelah.

The art that outdoes nature, the infinite harmony of trees as planted that the race in instincts are satisfied, is an art that is of slow growth. Men come to build finely, said Lord Bacon, far more easily and quickly than they come to garden finely. Hence the gardening is the higher art, and men sooner garden well on a small scale, with narrow though laudable aims, or sooner learn to plant lawns or door-yards with beautiful trees, than they learn to consider their neighbors, their village and the whole community. It is a great step forward when the first tree is planted on common soil, for common use, in the spirit of fellowship. One neighbor, as Emerson puts it, has the woodland, one the river margin, one the hills—I have the landscape. So, in the true village life, that contains many neglected germs of modern happiness, each citizen must consider what kind of a landscape he is helping to make.

## HORTICULTURE.

## The Fig of Commerce.

[The following paper by D. VAN LENSEN of Auburn was read at the Placer County Farmers' Institute.]

In writing a paper on the fig tree, I will confine myself principally to the fig of commerce, which is known in America as the Smyrna fig. I believe that the name Smyrna fig has been the occasion of much trouble, expense and disappointment in trying to obtain in California out of the fig of commerce shipped from Smyrna, but which is not really a Smyrna fig.

The fig of commerce is raised in the Province of Aidin, about 90 miles a little east of south of Smyrna. There are several fig districts in the Province, bearing the names of the principal towns in them. The principal ones are Aidin, Ebelli, Nasli, Denizli and Omorlu. The Ebelli district raises the fig in excellence.

The figs of commerce are raised and cured in these districts, put in bair sacks and shipped to Smyrna, where they are bought by merchants, assorted and packed in boxes, drums, cartons and barrels, according to quality and country to which they are to be shipped. Hence the name of Smyrna fig.

Figs are raised in Smyrna and vicinity in different varieties, some only for eating fresh and others for drying; the last are used mostly by natives. They are not suited for commerce, being inferior to the Aidin figs. I will state here that a fig called *Barthjeck*, raised about Smyrna for eating fresh, has no equal in flavor; it is supposed, however, it loses its flavor in three or four days.

The fig districts of Aidin are situated in a valley separated from the sea by a range of mountains; by the description, I surmise it may be somewhat similar to the Coast Range

in California. The soil is said to be argilo-calcareous, containing little humus. Generally a cool breeze comes from the sea, over the mountains, in the summer season when the fruit is on the trees.

The trees are raised by cuts 10 to 14 inches long in nursery rows and watered. The next year they are set in orchards. The second, third, and even fourth year, the fruit is small and falls off before maturity. Growers generally do not fructify the fig with the wild fig until the fifth year. This they think is better for the trees in their subsequent growth. They fructify fruit by placing on the trees a number of will fruit on strings, as heads are strung, in the months of June and July. The pollen is said to escape through the aperture opposite the stem of the wild figs, and spreading through the trees gets to the cultivated figs. After this operation, the later fig as it ripens becomes plump, increasing in size until the latter part of August. The ground under the trees is freed from grass and smoothed down and leveled in July to make it perfectly dry to receive the falling fruit. The figs are left on the trees until they fall by their own weight on the ground and are picked up every day and placed in places under shade prepared for them on the ground for a day or two; then they are put in sacks for the Smyrna market. In case the weather is damp or raining, the trees are shaken, as they drop with difficulty by their own weight in that case. They are then exposed to a dry atmosphere. The trees are irrigated little if any, but a cool soil is favorable to them. They are pruned very little; one or two trunks are left and all small branches on the trunks and main lower branches are removed to leave free access to the body of the tree. These trees have only one crop. The average yearly crop of the Aidin districts is reckoned at 30 to 35 millions of pounds.

I have already mentioned that the Aidin figs are fructified by the wild figs, which are also called capri fig. The trees grow wild on the mountains and hills of the district; the fruit is gathered in June until the first part of July and sold in the market places in strings to be placed on the cultivated trees to fructify them. The owners of orchards on being asked why this is done say that the figs do not come to maturity unless they do this. The figs they say will dry and fall before they come to full maturity or shrivel up, dry on the tree and become hard. The strings of wild figs are sold as high as the heat figs in the market when the crop happens to be short. The orchardists do not plant them in their orchards as they are plentiful on the mountains, yet if they happen to be growing in their orchards they leave them. They say that one tree is enough to furnish the pollen to twenty and as many as thirty of the cultivated trees. The seeds of the cultivated figs when planted produce mostly the capri tree. In the fall of the year the capri figs can be distinguished on the trees above the falling leaf by a small swelling. In the cultivated this does not occur before the next Spring.

There is an insect called fig wasp, that is the *hlastophaga*, which enters both the wild and cultivated figs and carries the pollen from one to the other. The growers think that the wasp helps, but it is not present every year, and to make sure of success they have to put the wild fig itself on the trees.

The prevailing opinion in Smyrna and in Aidin is that the same fig cannot be raised anywhere else, but in the districts mentioned above. The soil, locality, situation, sea breeze all combined is thought to be the secret of the perfection of the fig. The same trees are planted on the other side of the mountains toward the sea, around Smyrna in the plains of Magnesia north of Smyrna; but in all these localities the figs are not equal to the Aidin; some have tougher skins, others do not dry well, others have not an equal flavor. Please take notice in conclusion that all that precedes are facts and opinions existing where the figs are raised. It is for California to try and obtain a similar or as good a fig as the fig of commerce and present it to the markets of the land in the most attractive form and packages for ready sales.

I will note first that the locality is somewhat similar here at Auburn as in those districts where they are raised to perfection. We have an intervening range of mountains; true, we are farther from the sea, but, remembering how much larger the ocean is than from the archipelago and how much more subject to fog the former than the latter, we may reckon this as in favor of the locality. Our soils are cool in most places. The little water needed is an advantage for trial and success. Our good success with the white Adriatic may give us a good amount of hope in this respect. Many in California do not believe in caprification, while others are ready to try the practice which has been in use for centuries in the old countries. The pros and cons of this will not be mentioned as it would require a separate paper. But the fair, intelligent and wise experiments of raising the trees in different parts of the State, under propitious circumstances, I believe will enable us to obtain an additional industry in California which may be of great benefit to many. I will also state that most of the information given was obtained from a brother in Smyrna well qualified to give it, who also sent me cuts and small trees of the Ebelli district, with some of the capri. The Ebelli having come wrapped up in the soil from which they were taken, I sent a sample of this soil to the Cali-

fornia College of Agriculture for analysis last September, hoping to be guided in that way in the requirements of our soils for a successful raising of the trees. I have no returns thus far of the result, and I hope on a future occasion to impart the analysis to you.

## Placer County Fruit.

The following paper by P. W. Butler, of Penryn, was read by F. M. Varden at the Placer county Farmers' Institute:

The man who plants an orchard for profit, should, at the outset, learn just what fruits are best adapted to be grown on the spot where he is located. Placer county has already become famous for the superior quality of its deciduous fruits; many of them are not surpassed in excellence by any other country. The State Horticultural Societies and the Agricultural Department of the State University have done much toward determining the best varieties of fruits to plant in different parts of the State. "California Fruits," by E. J. Wickson, is a most valuable work. The author is eminently qualified to treat the subject and he has brought to his assistance the best horticultural writers of the State. This work should be in the hands of every orchardist. While the knowledge to be obtained from these sources is important, local information is more valuable. The local Horticultural Society that brings to its aid local writers, can obtain and disseminate information that will be invaluable to the people of its section, and should receive assistance from the entire community.

Nearly all deciduous fruits can be grown with fair success throughout the whole State, but it is now well known that only from one to five varieties can be grown in any particular locality at the highest profit to the producer. In this county, the fruits that have thus far yielded the most profit are peaches, cherries, apricots and plums; strawberries, blackberries and raspberries have also in many instances been made profitable.

Peaches, however, lead all other fruits in popular culture. In the centre of the thermal belt, and there only, should all the early varieties be planted and in a few of the most favored of such locations astonishing profits are frequently made. Even in this belt, the most sheltered places, where the land has a southerly slope and is light, warm and thoroughly drained, should be selected and where all these conditions exist it is questionable whether in any other portion of the State these early fruits can be grown as profitably. The heat fruits, however, ripen later and they are depended on for the main crop throughout the county. They all do well in the valley land, in the foothills and in the mountainous sections until an altitude of 3,000 to 4,000 feet is reached.

Apples do their best in the higher altitudes, and it is only there that the winter varieties should be grown.

It now seems probable that the fig is destined to become one of the leading fruits of this county because of its superior quality when prepared in a dried form. The Parker fig and the White Adriatic are the best varieties that have been fruited here. They have thin and tender skins, are very pulpy, are of delicious flavor and are transparent when dried, qualities necessary to make a popular product for extensive consumption. The largest figs should be selected for drying, the smallest can be preserved and canned or put in glass jars, and in this form, it is thought, it may rival the peach in the amount consumed when properly introduced. In the Smyrna district where the finest figs of commerce are produced, caprification is practiced in the production of the best varieties, some of which are supposed to have been introduced into this State. In a conversation a few days ago with one of the members of the largest fig importing houses in America, who has traveled through the fig countries of the old world, he stated positively that the best fig produced in Smyrna could only be fruited by caprification with the wild fig and that until California got this variety and planted the wild fig with it and pursued the methods of caprification as practiced in the East, the best results in fig culture possible to this State could not be attained.

Apricots, cherries and early peaches must be planted in warm, sheltered places where they will ripen early. Apples, pears and plums do well on colder and more level land, but all peach land should be well drained, well irrigated thoroughly and irrigated plentifully. All orchards must be fertilized to produce best results.

The man planting an orchard now in Placer county takes fewer risks than in almost all other kinds of business. He plants only such fruits as have been proven to be profitable. Experimenting is done by nurserymen and others interested in the introduction of new fruits and the practical man is ever ready to utilize the results of their experimenting. To do this effectively take one or more leading horticultural journals, take the local newspapers, join your Horticultural Society and attend its meetings, advise with your neighbors, practice what you learn, and if attentive to your business you cannot fail to meet with success.

STATE BOARD OF TRADE.—The exhibition rooms and office of California State Board of Trade will, on and after June 1st prox., be located at No. 603 Market St., near Second, next door to the headquarters before the Grand hotel fire.



## AGRICULTURAL NOTES.

## CALIFORNIA.

## Butte.

**FLOURISHING ORCHARDS AND GROVES AT PALERMO.**—Oroville *Mercury*: A drive over Palermo disclosed a highly gratifying condition generally. The vast area of fruit trees is a slight worth riding miles to see. They are in a flourishing condition, and the numerous orange groves look exceptionally pretty. The system of irrigation shows to splendid advantage, for at this season the ramifying ditches can be traced in all directions. New residences are going up and many acres have been set this year. On the Hearst & Taylor place 30 acres of Tragedy plums were set this spring and not one died. This is a remarkable fact, for not often can a man set 3000 trees and have the satisfaction of seeing every one live and flourish. It is needless to say that the soil was thoroughly prepared and the trees properly set. This plum, something new here, is called the "Tragedy" because of its gory color, and is intended for early shipment to the East. We were glad to notice that the grapes, olives, figs, plums, in fact, all the young fruit trees are thriving as well as could be desired, and the prospect is very bright.

**BUTTE COUNTY ORANGES.**—Chico *Chronicle Record*: Mr. Gillett, the Florida agent of the W. R. Strong Company of Sacramento has been visiting the Coast, and concerning his visit to the several parts of the State the *Record-Union* has an extended article. It concludes with the following: "The visitor has also spent a few days in the famous Butte county orange groves. At Palermo, Thermalito and Oroville he found the orange groves in a flourishing condition, and was much gratified to know that carloads of oranges had been shipped last fall and early winter from this district, and that the quality was fully up to the best grown in the State."

**FIRST CARLOAD OF CHERRIES.**—Chico *Enterprise*, May 26: Last Friday the first complete carload of cherries ever sent from Chico was shipped East, and the second is loading today. To ship cherries, and we suppose other fruit is the same, it requires about seven tons of ice to make the trip. Three tons are put into the car in Chico, and before starting East from Sacramento, an addition of four tons more is made. The ice is placed in a receptacle above the fruit, and the waste water runs off toward the end of the car.

**POTATO CROP IN BUTTE COUNTY.**—Biggs *Argus*: During a drive through Rio Bonito and the young orchards on the other side of the river during the past two weeks we were pleased to note that many have planted potatoes between rows. The potatoes are growing fine and a large yield will be the result. On the Reed & Johnson place there are many acres in potatoes and we never saw a finer outlook. The failure of this crop in other places will undoubtedly work to the interest of the potato crop in Butte county, which will assure a good market for the home production. There is lots of room on Rio Bonito for growing all kinds of vegetables in the various orchards, and when our people learn the benefit to be derived from utilizing the soil between trees the cost of living until the fruit materializes to the owner will have been more than paid by that which has been raised while cultivating the trees.

**DAIRYING IN BUTTE.**—Register, May 28: With cream-separators, butter can be made as readily here as in a colder climate, where the milk is set in pans. The price is always profitable, the demand good, and there is no reason why thousands of dollars should be sent out of this county each year to pay for butter that ought to be made at home. The true secret of successful farming is in producing all that is possible on your lands, and thus avoid having to purchase from others. The people of Butte will find it a profitable business to make their own butter rather than buy it; the money will be kept at home, the land will be enriched, the dairyman will get a good price for his calves, and he will be sure of a paying price for the butter he produces.

**GOOD FRUIT REGION.**—Oroville *Register*: That portion of Butte county which lies on Barry and Bear creeks is an exceptional locality for fine fruits. A rocky ridge extends between this strip of land and the Middle Fork of Feather river; it lies far below the high backbone known as the Mountain House ridge, and is thus sheltered and protected from wind and is not high enough for snow to do any harm. The apple, peach, plum, pear, apricot, English walnut, olive and orange all grow in this favored belt. Berries of all kinds are unsurpassed; the cranberry thrives finely, and even the cranberry succeeds well. Among those who have orchards in this section are Philip Zink, Geo. Spitzler, G. V. Oton, Miss Biogham, Alfred Clark, Joel Flynn, Geo. Martin, W. L. Moore, Mr. Woods, Bob Chaplain and J. McCollan. There is much land that cannot be irrigated, and experiments have been made by Alfred Clark, Geo. Martin and others to test the capacity of the soil for growing fruits without water. These tests have been very satisfactory, and Clark has a variety of trees, including the peach, almond, chestnut, etc., that are doing well without having been irrigated. Martin has the almond, peach, plum and pear, all growing finely without a drop of water. The soil is deep and good, the climate is unsurpassed, and all that is needed to make the

region one of the most desirable in the State for homes is rapid and easy communication with markets.

## Contra Costa.

**HARVEST WORK.**—Antioch *Ledger*, May 30: There will be about a dozen combined harvesters, besides headers and old-fashioned thrashing machines. The following prominent farmers will have harvesters in the field this season: Volney Taylor, H. Hoffman, Livingston, Porter, Haey & Co., Wilder Bros., Geddes and McCabe, G. Cople, E. D. Griby & Co., Fred Quant, Howard Bros., J. Christensen and Gen. Veale. Mr. Christensen's harvester will be hauled by a steam road wagon, and the others will be hauled by horses, requiring about 24 animals for each.

## Fresno.

**CROP ADVICES.**—Fresno City, May 30: The continued cool weather during the latter part of May has been very favorable to the well-filling of grain, the grain being much more plump than would otherwise have been the case. Hay harvesting is pretty well over, and grain harvesting will begin in earnest the coming week. Extensive arrangements are being made for the care of this season's fruit. The El Modelo packing-house is being rebuilt. The new structure will be of adobe, one story, and covered with corrugated iron, so that it will be practically fire-proof. Many of the leading producers of the raisin center are perfecting a co-operative packing establishment. The objects are to secure uniformity of grade, keep up the standard of brand, secure reduced freight rates, have a voice in regulating prices, etc. It promises much for the future. A committee of Fresno raisin men have spent the past few days in San Francisco in conference with railroad people with a view of securing more favorable freight rates.

## Inyo.

**EIGHTEENTH DISTRICT FAIR.**—Bishop *Register*: The 18th District Association directors met at Independence, and decided the time for the fair of 1891, beginning Tuesday, September 29th, and ending Friday, October 2d. A premium list was adopted. The meeting was entirely harmonious and pleasant, and the manifest intention is to make the coming fair the very best that circumstances will permit. The southern end of the valley will exhibit handsomely, and our local producers and citizens should, and no doubt will bend every energy toward making the event a notable one.

## Kern.

**TO IRRIGATE FOR EARLY CROP.**—Bakersfield *Echo*: The reputation of the Delano country for the early maturity of crops is already established. The warm, loamy wash from the hills pushes vegetable life of all kinds forward at a rate scarcely equalled in any part of the State. Watermelons mature there weeks in advance of even the celebrated Lodi country. The first grapes to reach the market each year also hail from that section—so the McGee boys say. These factors in wealth-making are to be availed of hereafter by some enterprising gentlemen in that vicinity. They propose to put in a pump plant next year and plant 40 acres to grapes, and also plant melons between the rows. The same water that flows down the rows to fertilize the grapes will instill life into the melon vines, and the latter will more than pay the expenses of cultivation and irrigation. In years past, the melons from that section have sold readily at 50 cents each.

## Los Angeles.

**POTATO CROP.**—Pasadena *Star*: The high price of potatoes last year has stimulated an immense planting, and large and frequent fields of them are seen in driving about the country.

**WHEN TO PLANT ORANGE TREES.**—*Star*: The time for planting orange trees has been much discussed, but the consensus of opinion among the best-informed men seems to be that it should be done in the spring and early summer, at a time when the buds are beginning to show signs of starting, or at the latest before the new growth shall have reached two inches in length. Snob was the recent decision of the Pomological Society of South Riverside. In the vicinity of Pasadena some of our best horticulturists have not yet planted their orange trees, but will do so some time early in June.

**VEGETABLE SHIPMENTS EASTWARD.**—L. A. *Express*: S. A. Butler, agent of the Wells Fargo Express Co. says that the result of the past winter's vegetable shipments has been that there is a new business started in the nature of raising winter vegetables for Eastern markets. The railroads are alive to the movement, and next winter you will find vegetables, peas, beans, tomatoes, new potatoes, and strawberries leaving here by the carload, running on fast time just as the orange trains run now. The express company took the lead, and by conveying small lots at reduced rates of freights allowed the farmers to feel the Eastern winter market, and the result has been satisfactory. Our business will now be largely confined to carrying the vegetables from the centers in the East whence they are shipped to the surrounding or adjacent small cities. Just at present there is very little fruit and vegetable shipment going through the express; the strawberry season is nearly over and tomatoes are backward. They have for some reason we have not heard satisfactorily explained been so for the six months past. We had a heavy winter call for tomatoes but we couldn't get them. There was one frost which killed all the

strawberries and tomatoes and threw everything back. I tell you, the man who has the piece of frostless land in this country has a treasure, for I am sure these winter shipments are going to grow into one of the most profitable businesses we have.

**SMALL CROP OF PRUNES.**—Pomona *Progress*: The yield of prunes in this valley this season will probably be less than one-half of an average crop. Last year the yield was enormous. A gentleman who has had occasion to visit a score or more of the best prune orchards in this locality, during the past week, tells us that the fruit (now about the size of a pea) is rotting at the stem, and falls away from the tree by the handful every day. Some trees are now almost bare of the green fruit. It seems to be the rule that trees that were loaded with the great crop of prunes last year are the poorest bearers this season. There are all manner of reasons given for the loss of the prune yield, but none that is generally accepted. Some horticulturists say that too much moisture and the cloudy sky have killed the young fruit, and others declare that lack of irrigation or rain did the business.

## Monterey.

**CROP NOTES.**—Cor. Salinas *Index*, May 30: Much has been said about an anticipated shortage of crops in the central portions of Salinas valley, and there are a great many fields from Gonzales to Cholone in which the grain has been converted into hay, and the hay cocks do not appear to be very thick. The stock requirements of all farmers compel them every year to cut a portion of their grain for hay, and the light straw of this year compelled them to sacrifice a greater area for this purpose than usual; but light straw does not necessarily denote light grain; on the contrary, the best crops are often harvested under these conditions. J. P. Raymond, a heavy grain-buyer in the valley, and R. M. Shackelford, who is interested in warehouses along the railroad express themselves pleased to witness the evidences of a fair crop where reports had led them to expect nothing. The crops about Bradley this year will be first class—far better than they were last year. The rainfall of the year has been greater at this point than at Salinas. The 300 foot warehouse will not hold the grain tributary to this shipping point if producers wish to hold for a rise, but with present prospects of good prices the crop is expected to move soon after harvest. A great many fruit trees have been put out in the vicinity of Bradley this year, and the experience of the past has demonstrated that this region is well adapted to horticulture, especially peaches, apricots and prunes.

**GRAIN CROP AT SAN LUCAS.**—May 30: E. T. Harris, who was warehouseman at the time, received 71,000 sacks of grain from south of the river in 1888 and 93,000 in 1889. J. B. Anderson received 84,000 in 1890, and a careful estimate places the number from that side of the river this year at 100,000 sacks.

## Orange.

**HOW A LARGE WALNUT GROVE IS PLANTED.**—Anaheim *Gazette*, May 28: The 900-acre walnut grove south of town belonging to Meers, Fowler, Minor, Culton, Jones and others is looking splendidly. The trees have made more than a year's growth since being set out last spring. There are in the neighborhood of 30,000 walnut trees set out in the tract, and on going over the place to prune the trees not a single dead tree has yet been found. Some of the trees are nine and ten feet high, and are looking as thrifty as can be. Between the young trees the owners have put in a crop of potatoes, which is now about ready to dig. Messrs. Fowler and Minor have 220 acres in potatoes, and the other patches on the tract amount to 220 acres more, making 440 acres, one may say almost in one patch. It is claimed by experienced potato growers that the crop will average upwards of 100 sacks to the acre. At this rate the tract will produce 44,000 sacks, which at 300 sacks to the car, will load 146 cars. That is potato raising.

## Placer.

**ORCHARDS IN PLACER.**—Sutter Co. *Farmer*, May 29: R. C. Kells and wife took a trip to Placer county, driving through the rich fruit country near Auburn, Loomis and Newcastle. One of the noted orchards visited was that of Robt. Hector, near Newcastle, known all over the State as the Hector cherry orchard, which was planted in 1852, and is one of the oldest in the State. The tallest tree in the orchard is 60 feet in height and 3 feet and 2 inches in diameter. Last year, over 3000 pounds of cherries were picked from it, and this season the tree bore 1800 pounds. Other orchards and vineyards were visited, and everywhere the fruit industry seemed to be awakening. Hundreds of acres have been planted there during the past year. Peaches predominate over other varieties planted there; also a great many fine orange trees were noticeable in the gardens and orchards.

## San Joaquin.

**WILD BLACKBERRY CROP.**—Lodi *Review*, May 30: Wild blackberries are being gathered in large quantities along the Mokelumne river. The crop is exceptionally heavy this season, and the berries are of a very nice size.

## San Luis Obispo.

**DAIRYMEN ORGANIZING.**—S. L. O. *Tribune*: As Cayucos is a leading shipping point, enough good material was found to start the Dairymen's Association on a good footing. The fol-

lowing agreement has been adopted and generally signed: "We, the undersigned, dairymen of Cayucos and vicinity, agree to assist in the movement of forming the Dairymen's Association, and will sustain the action of the delegates from this place to the convention, to be held in San Francisco, June 1, 1891." The above was signed by 26 leading dairymen who were present.

## San Mateo.

**HESSIAN FLY.**—Redwood City *Gazette*: An examination of the stalks of wheat in one of J. A. Robinson's fields, which John Corran had cut over and where the wheat was not as thrifty as elsewhere, disclosed the presence of a small insect. Mr. Robinson took some of the grain to San Francisco this week, and left it at the room of the State Board of Horticulture, and, as a result, received a letter from Quarantine Officer Alex. Crow, in which he says: "The samples of wheat left upon my desk contain the puparia of the Hessian fly (*Oedemera destructor*). As I have just hatched the perfect insect from specimens received from Rio Vista, I would recommend the burning of all infested stubble as soon as possible, so as to prevent the winged insects from hatching and spreading."

## Santa Barbara.

**EDITORS PRESS.**—We have had a long spell of cool, cloudy weather. Most of the hay is out and in the field. I think there has not been enough rain to injure it much. Bean-planting is nearly through with. There will not be a good crop of fruit all around this year. In apricots there is a good prospect here and there, but there are many trees with little or no fruit on them. In apples it is rather early to tell what the crop may be. Pears bloomed very full, and I presume enough will remain on the trees. Many of the peach and plum trees have the buds and seem inclined not to start leaves or blossoms, so there will be, with few exceptions, light crops. Grapes promise well. Prunes are very backward, on the whole, so I think there will not be a full crop. Neotaries promise a fair crop. Dawson plum trees are full of leaves and fruit. —O. N. CADWELL, Carpinteria, May 27, 1891.

## Santa Clara.

**TOBACCO CULTURE.**—Gilroy *Gazette*: The experimental tobacco crop of three acres that was planted in Los Angeles county this season is said to be doing very well. At Livermore, a few acres are also being satisfactorily experimented with, and we are informed that in many of the northern counties it is also grown in a small way with good results. Near us, at San Felipe, Mr. Culp is raising considerable tobacco of excellent quality, and Duncan's crop on the Uvas is always of good marketable growth. It is a well-known fact that the land about Gilroy is well adapted to this culture, and that our climate is exactly what is needed for the proper curing of the leaf.

## Santa Cruz.

**DRAINAGE DISTRICT ORGANIZED.**—Watsonville *Rustler*. At a meeting of the land owners held in Kennedy's hall last Saturday afternoon the Pajaro Drainage District was organized by the adoption of by-laws and the election of the following officers: President, A. F. Richardson; Vice President, John Kennaugh; Secretary, O. D. Stoenner; Treasurer, Otto Stoenner; Trustees, J. I. King, A. Hughes, and Nele Struve.

(Continued on page 560.)

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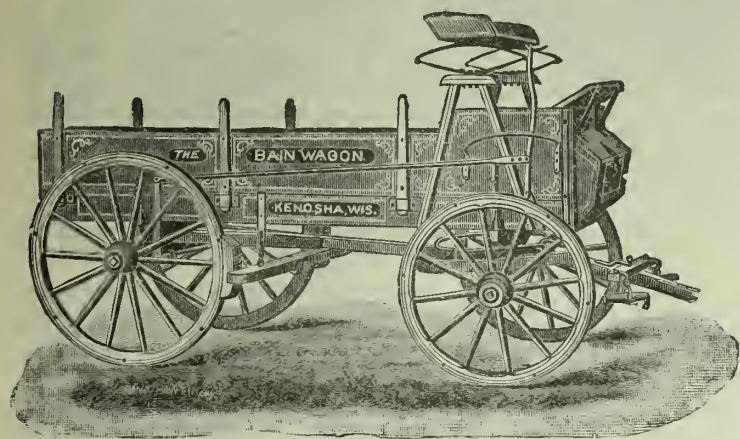
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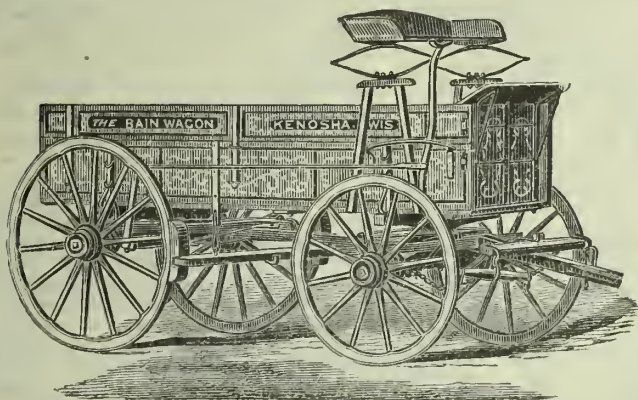
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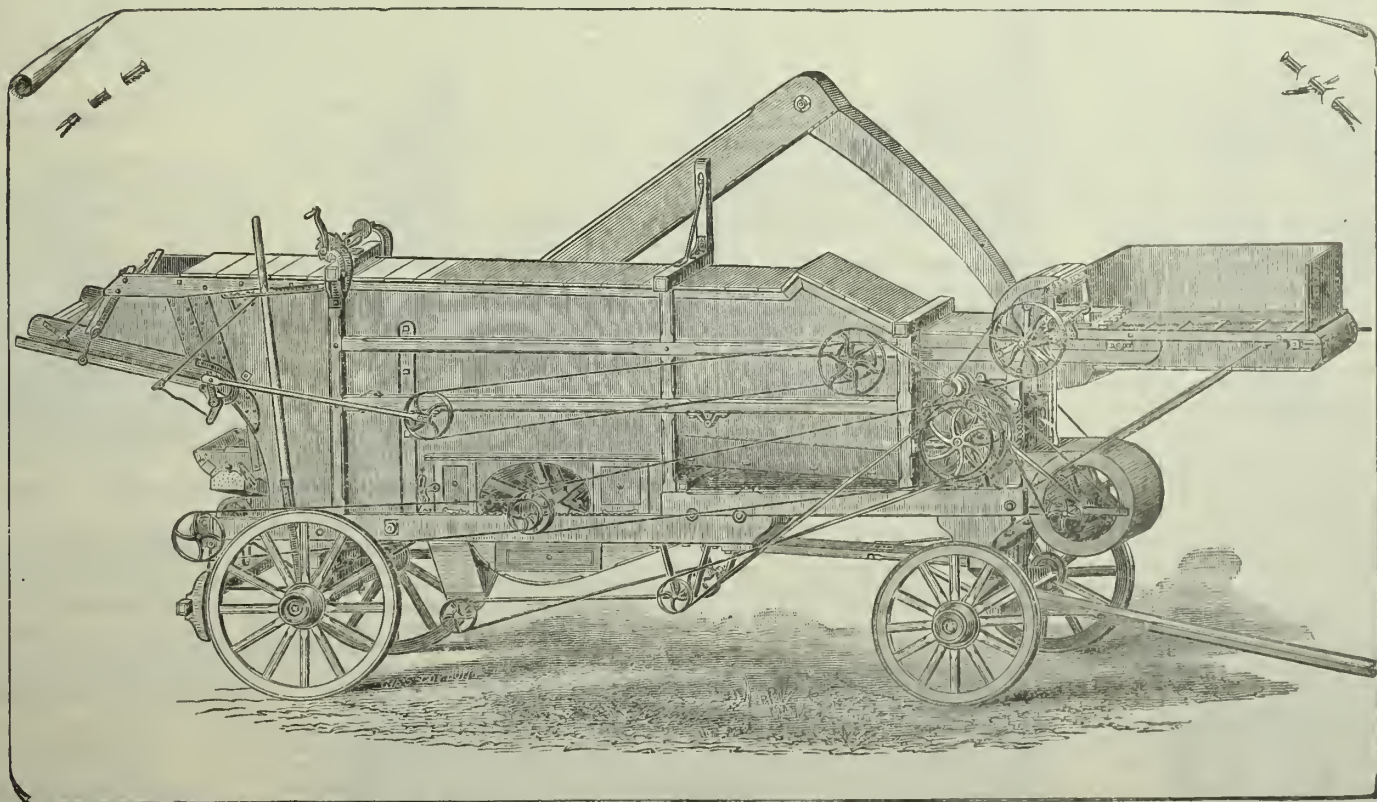
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## FRUIT PRESERVATION.

### An Oregon Discussion of Fruit-Driers.

As the fruit-drying season is at hand, we give in full a discussion of mechanical driers, held before the Marion County (Oregon) Fruit-Growers' Association. The leading essay is written by a man who has a drier of his own invention to which he frankly alludes. If he should have been unconsciously drawn into finding more defects in the machines of other inventors than they are willing to admit, our columns are open for replies. A discussion of the whole subject can hardly fail to be of value and for this reason we write it. We quote from the *Salem Journal* as follows:

Mr H. S. Jory led this discussion by reading the following paper:

Having been requested to give a description of the various kinds of fruit-driers, together with their merits and faults as viewed from my standpoint, I will comply to the best of my ability. Of course, to give anything like an extended description of all the driers, with which I am acquainted would make this article too long, so I will content myself with giving a short sketch of some of the most common ones used on this coast. I will commence with

#### The American.

Manufactured at Waynesburg, Penn. This company claims to have made and sold more driers than all others combined. It consists of a frame drying chamber or flue, set at an incline of 20 degrees, the lower end resting on a furnace, surrounded by a casing or jacket, to confine the heated air and discharge it in the flue, where the fruit is placed to dry on galvanized wire trays, the frames of which are made of wood and of a square form. The fruit is prepared in the usual manner and placed on the trays immediately over the furnace, and when another tray is filled, the first one is slid up, toward the upper end of the drying chamber, repeating the operation as each succeeding tray is filled, or until the drying chamber is filled. Some of the larger sizes have a device for sliding the trays upward, by means of a crank and ratchet which makes it somewhat easier. Defects: The difficulty of sliding the trays upward in the drying chamber, especially when loaded with fruit or gummed as they are liable to be with syrup or drippings, from plums or other soft fruits. The difficulty of getting at the fruit to examine it while drying, as being in this long drying flue, it would have to be pushed through in order to examine it, and it would be necessary to push it up one tray from the bottom, and then get up on the step ladder and take one tray out, and then go to the bottom and push another up, and so on continuing the process until all were examined or taken out. The difficulty experienced from steaming or retarding the drying of the fruit in the upper end of the drying chamber, by constantly putting in green fruit at the bottom. This machine does good work when only a small amount is in the drying chamber at a time.

#### The Alden Drier.

This consists of a furnace in the basement, from which the heated air is conducted into a tall vertical drying chamber or flue, discharging at the top of the building. This flue is usually of seasoned lumber, and about 3 1/2 feet on the inside, and extends from the bottom up through the floors and roof. On the inside of this flue is placed four endless chains, and in the chains is placed at intervals of five inches, little hooks or projections to engage and hold the fruit trays and keep them in their proper position, while ascending in the flue. The endless chains are drawn upward in the drying flue, by means of a crank and pinion with ratchet attachment, to elevate the fruit trays. This device is worked either by hand or power, as desired. On the main or operating floor is placed a door into the flue; through this door all the fruit to be dried is put in. On the upper floor or loft is placed another door at which all the fruit, when dried, is taken out. Defects: The difficulty of getting the heated air to circulate through the tall drying chamber, when filled with fruit trays one above another, as it is impossible for the heated air to rise until the fruit on the lower trays is dried or shrunk, so as to allow the heated air to pass through to the top. This continued steaming from the damp fruit below causes the fruit to oxidize or turn dark, thus injuring its appearance, and to prevent this, the pernicious practice of bleaching with sulphur was resorted to. This machine is so expensive and so obviously inconvenient as to be little need at present, a large one being unused and discarded in this city for several years, and is fitted up and is now known as the Oregon House. In regard to the large drier now in operation by Mr. Wallace and others in this city, it would be hard to give a description of it, as they have been continually changing it each year since its erection. Suffice it to say, however, that the first year it was the Alden in every essential particular. The next year it was entirely remodeled, and the system of Mr. Cozins of San Jose, Cal., was adopted. Now I will describe Cozins' drier. It is a large concern, and they were drying apricots when I was there. They claimed a capacity of some 30 tons daily for it. But you will not wonder at the capacity, when I tell you how it was done. The fruit was first pitted, then put in the bleaching-box and

bleached with sulphur, then put in the drier and warmed a little, then taken out into the back yard, where it was finished in the sun. The drier proper consists of a long drying chamber, about 60 feet long, 16 feet wide and 7 feet high. This is made as tight as possible with seasoned lumber. There is a partition running lengthwise to within about seven feet of either end, making two drying chambers, 51 1/2 feet. These drying chambers are in or near the center of the building. The outside walls of the drying chambers consist of a series of doors fitting closely, to confine the heated air. These doors are large enough to admit a car with 64 trays 3 1/2 x 3 1/2 feet. There are 14 of these cars, 7 on either side, and they run on iron trucks from the main building, where they are filled into the drying chambers and out into the back yard. There is a close room in which is situated the furnace for generating the hot air. A fan is used to force the hot air through the drying chamber, and the current can be changed to go into either chamber, passing down on one side and up on the other, or reversed. A steam engine is used to operate the fan. The parts or openings, where the hot air and steam escapes, is right over the passage where the hot air enters, when it is desired to turn the hot air on one side; then the part in the top of that chamber is closed and the other one opened, and vice versa. Defects: The difficulty of getting an even circulation of hot air through the entire drying chamber, as the hot blast passing through the cold fruit on the first car, a considerable portion of heat would be taken up before passing the second, and so on to the fourteenth car. It would be pretty well spent, even if it should ever reach that. It would be so loaded with moisture as to be worse than useless. So it becomes necessary to keep changing the cars and changing the trays, which makes a great deal of work and is not quite satisfactory, as evinced by the fact that he is again changing it the present season.

#### The Clarke Drier.

This is a home made drier, of which quite a number are constructed in different parts of our State and Washington and all of this general form of construction, of which can be mentioned Clarke's of Salem, Lambert's of Milwaukie, Cardwell's of West Portland, and Hadden's of Vancouver, Wash., with others I could name. It consists of a long furnace constructed of brick some 20 or more feet long. This furnace is made in the bottom and center of a cellar or excavation in the ground, say 4 feet deep, 6 feet wide and 24 feet long. This is walled with brick 2 feet above the top of the ground, or 6 feet from the bottom. On this wall the framework of the drier rests. The framework of the drier consists of a 2 x 4 scantling or sill, on top of each of the brick walls. To these are secured at the bottom stanchions or studding, like those used in building an ordinary house.

These are 3 feet apart on the sides, and pieces are nailed across from one side to the other, to form a support on which to slide in the fruit trays used in drying the fruit, which are about 2 x 3 feet. The whole is inclosed or boxed in with seasoned lumber, and is provided with small doors to put in and take out the fruit. Each door is intended to accommodate two trays, and in fact the whole of both sides of the drying chamber is composed of these small doors, so that the fruit can be put in or taken out on both sides of the drying chamber. Holes are provided at intervals in the top of the drying chamber for the escape of the steam or moisture.

Defects: the difficulty of getting a thorough circulation of heat throughout driers, necessitating a changing of trays constantly, also an enormous consumption of fuel.

#### The Plummer Drier.

This drier has been more generally distributed and sold on this coast than perhaps any other. It has a basement of brickwork in which is situated a cast-iron furnace in the usual manner. On top of this basement is a wooden drying chamber about 4 feet square and 7 feet high, made of seasoned lumber with a ventilator in the top to allow the heated air or steam to escape. In one side of the drying chamber are 8 small doors, each made to accommodate 2 trays so that any one of the 8 doors can be opened and 2 trays taken out or put in. The trays are about 3 1/2 x 3 1/2 feet square with wooden frames, galvanized wire cloth bottom, and 16 in number. Defects: the trays have to be continually changed from top to the bottom, in order to dry evenly, as the heated air cannot rise through so many trays of green fruit to dry evenly. In order to examine the fruit to determine the exact condition in drying, one would have to take out the tray or turn it around. This is frequently quite difficult when the trays are large and stick to the ways with the dried fruit syrup, making considerable hard work.

I now come to the description of revolving driers and as this is already lengthy I will only describe two. The Walters drier of Los Gatos, Cal., has a horizontally revolving rack on which to dry fruit. This is the Riggs drier with which some of you are doubtless acquainted. It is however built on a larger scale. The inside parts are all iron, consequently fire proof. The rack containing the fruit to be dried is kept continually revolving by means of a steam engine. This drier seems as perfect as it is possible to make it in its drying appointments and its only fault is its cost.

#### The Oregon Drier.

I will now describe another revolving drier, the Oregon, of which I am proprietor, and hope

you will pardon the assumption when I assert it has more good points and less objectionable ones than any other on the market. This drier has unlimited capacity, the only limit being in the size and number of the drying chambers. It is described as a hollow, cylindrical rack frame, situated above a furnace and revolving around a central heating drum and smoke-pipe, the whole being inclosed in a suitable shell of brickwork or wood lined with sheet iron to confine the heated air used in drying fruit and vegetables. No engine is needed in order to revolve it; as the heat is central, it is perfectly evenly distributed, and it is only necessary to revolve when filling in or examining or taking out fruit, and this is done with the hand. The ventilation in this machine is perfect, as the fruit-trays are two or three times as far apart as in most others. No steaming or oxidation of the fruit can occur in this machine, as the hot air and moisture passes through the inner edge of the upper trays from the trays below, seeking a direct line to the ventilator, which is nearly in the center above. No changing of trays is required, to dry evenly. The entire charge is put in at one time, and it is ready to come out at nearly the same time. No smoke can occur on account of the dippings falling on the furnace, as they do not fall on it nor in fact anywhere within the inner circle. This machine is made in seven different sizes, in capacity from 10 to 150 bushels of apples per day for a single chamber, and in price from \$75 to \$500 for a single chamber. Where more than one is required at the same place, a liberal reduction is offered. The economy in labor in operating this machine is wonderful, as several can be set conveniently together and operated by one person, so that all can be used, or a part, as occasion requires. The saving in fuel alone would soon purchase any other machine, as it does not amount to more than one quarter what it takes in most other machines. In conclusion, I will just add that I have spent the greater part of ten years in inventing, perfecting and operating this machine. In order to do this, it has been necessary to travel extensively through different parts of this State and California, in order to examine what others had done in this line; hence my acquaintance with the different kinds of driers, many of which it has been impossible to even allude to in this article.

#### Fruit-Drying and Fruit-Driers.

Mr. J. M. Coulter of Portland then read a paper as follows:

I come before you more in the interest of fruit-driers than in the raising of fruit, as I am not a fruit-grower. But I have taken a good deal of notice and interest in the drying of fruit, and years ago, here in Salem, I was engaged in business that required the handling of both green and dry fruit, and I often found the dry to be burned or smoked, and consequently bitter to the taste and of poor flavor when cooked. I often thought of some way to construct a drier that would do the work better and also one that the farmer could afford to buy for his own use at home, one that would be free from burning the fruit and also the danger of burning his house. But I could not see my way how to make such a drier, and see any of the hot-air methods, so as to bring it within the reach of persons with small orchards in the matter of cost, or avoid the matter of burning or smoking the fruit. And so the years went by, and no drier came that filled my idea of what ought to be in that line. Well, some six years ago, while at the State Fair held at Salem, I saw what was called a steam cooking affair, and I saw it did the work well. I then formed the idea of a steam fruit-drier, and I have since got one up that I am going to call your attention to, yet I am not going to claim I am the first to get one up, for I am not; but I am going to claim that I believe my drier, with the improvements I have placed in it, is the best now in existence, and I will give my reasons for my belief in it.

My first reason is that it does the work better than any other drier, and especially any hot-air drier. My second reason is that it dries faster than any other. My third is that it is easier attended and less expensive to run than any other. My fourth is that it leaves the fruit in better condition and with better flavor than any hot-air drier. My fifth is that it gives more pounds of dry fruit to a given number of pounds of green than any hot-air drier, as there is no loss from bleeding or dripping. My sixth is the fact that they are more adapted to the wants of the people, as the cost for family sizes is so small that they come within the reach of all, and for those wanting large driers they are cheaper than any other that will do the same work, both in cost of drier and running expenses.

Gentlemen, I have given my drier the name of The Surprise Steam Fruit Drier, as it surprised me by its good results in all ways when I first tested it, and it surprises all who are using them as it did me; and now, in conclusion, let me remark that whether my drier is or not the one to take the place of the hot-air drier, which I hope it will, somebody's steam drier will, for steam has come to stay in the matter of drying fruit.

#### Mr. S. A. Clark.

Then gave a description of a drier which he uses on a large scale. He burned green wood and dried 400 to 500 bushels with a cord of wood. He could dry the Italian prune in 24 hours, the French in 10 hours. He thought the proper use of steam as a drier must prove superior to hot air. He emphasized the importance of plenty of air space around drying

fruit. His drier was 30 feet long and would handle 200 bushels of Italian prunes a day. It was heat to fill the drier with green fruit and finish that. If any fruit was not quite done when taken out, it could be taken into the attic and left to dry with the ascending surplus heat. He could dry prunes for one cent a pound in large lots. This included expense of gathering. He had fruit picked into old oil cans that had handles put on them. The fruit was dipped 5 seconds in boiling lye, then into two lots of clear, cold water. The fruit is then put into the drier. He paid boys and girls 75 cents a day and kept several hands through the year.

Such a drier costs \$500 to \$1000. Fruit dipped in a hot solution of one pound of glycerin to 20 gallons of water obtained a beautiful glossy finish. Fruit should be gathered by shaking trees and the soil beneath should be finely mellowed by cultivation and no fruit would be bruised.

Mr. Jory said the cost of making dried apples was about two cents a pound. A bushel made from 5 to 5 1/2 pounds. Fruit gathered should be put in water and handled out of it into the trays for drying. Prunes, without dipping, made about 33 per cent weight of green fruit. He secured over a ton of dried prunes off an eighth of an acre. With three hands and two driers he could handle two tons of fruit a day. A machine costs \$350.

Mr. Clark emphasized the value of fruit ripening perfectly on the tree. Fruit could not be handled in any great amount without loss. It was not economy to transport green fruit.

#### HOW TO MAKE PRIZE BUTTER.

J. H. Bickford, Supt. of West Lebanon (N. H.) Creamery, whose butter has won many first prizes, in answer to the question "How is it your butter is so uniform in color?" said "Because I always use Wells, Richardson & Co.'s Improved Butter Color. I have used other kinds, but the improved was the only satisfactory one." This color is not only the most uniform, but it is much the stronger, and hence most economical.

Joe R. Anderson, Jr., proprietor of Thorncliff Stock Farm, Lee, Va., writes: "That my butter, which won the Jersey Bulletin gold medal for the best Jersey butter, was colored with Wells, Richardson & Co.'s Improved Butter Color." In fact, the makers of prize butter, in all the dairy sections of the world, emphatically endorse this color as the best. Don't allow your dealer to sell you anything else.

MECHANICAL IMPROVEMENTS.—A writer in an exchange says that the past two years have developed more improvements in mechanical devices than any 20 years preceding. During that time almost every branch of business has been more or less revolutionized by new mechanical appliances or new processes. It is a remarkable fact that it is more applicable to the American people than to any other nation that whenever any new device is brought out or any new process introduced, even before its utility is fairly demonstrated, in many cases hundreds and thousands are found ready to adopt it.

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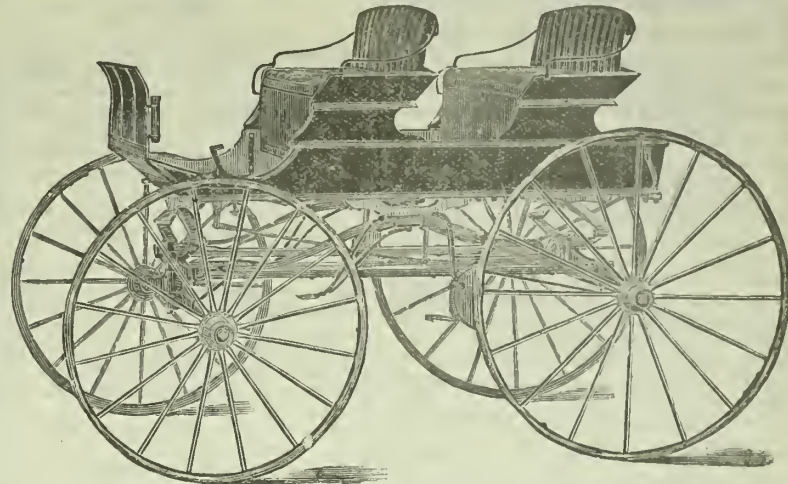
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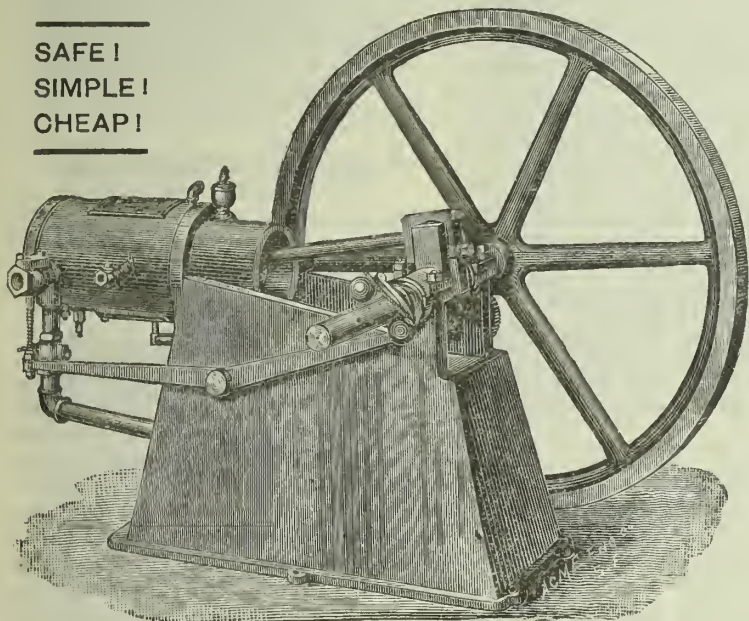
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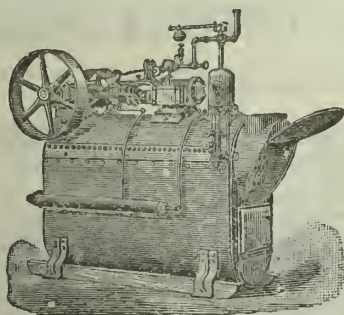
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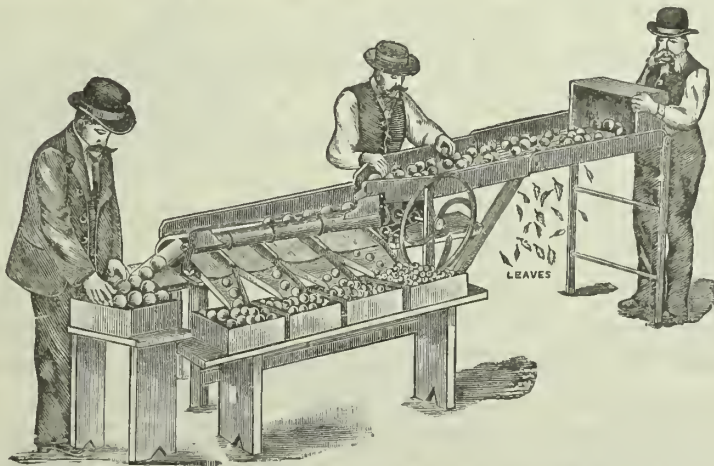
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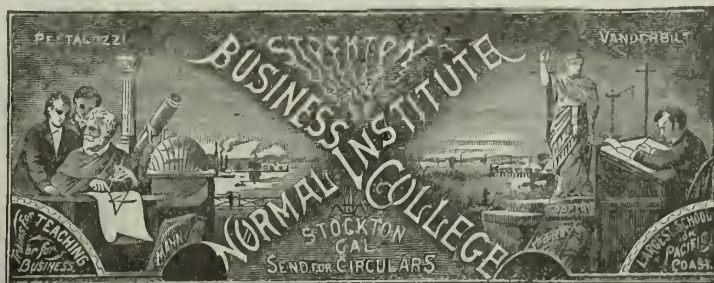
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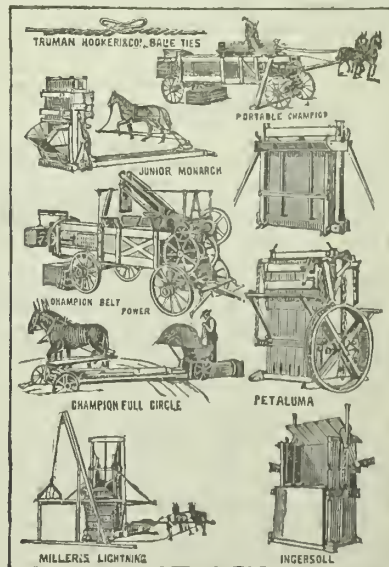


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## Tree Planting in the Foothills.

The following paper was read by Fred C. Miles before the Placer County Farmers' Institute:

In the planting of trees, we only follow Nature in her wonderful ways. Countless ages have elapsed since the elements began to disintegrate and change the primitive rocks; water and ice, and the effect of heat and winds have been working together, and are working today, changing the characteristics of our rocks and soils, and rendering them capable of sustaining and nourishing the growth of that mystery, the germ of life. We find it everywhere, from the tiniest seed through all the growths of earth. The knowledge required, and delicate care to be used in promoting this growth of plant life, make it one of the most pleasant and pleasurable things mankind can do.

As we look about, we find that Nature has allotted certain types of trees or plant growth to some one locality, other varieties to different places, while a few are common to two or more zones.

Many of them will thrive in homes far removed from their origin. Others change their habits somewhat, where the change is more marked. Some become better or worse as we regard them with a financial result in view.

Placer county may be compared to the world, for from the great valley of California, where the sun ever bathes the foothills in perpetual warmth to the mountains that witnessed the transformation and building up of this empire—the most beautiful habitation of man—the orange, the date, the banana, the palms and plant growth from nearly everywhere find a congenial home and make their fortunate owners the most happy and contented of mankind. Thus the orange, date and peach, that have come from that mysterious storehouse of Aëla that has sent out all the great movements that have shaken the foundations of mankind, have grown, increased in flavor and size, and finally, in this most western country has attained, in this favored place, the highest excellence.

When a person has selected a home, he should find out particularly the variety of trees each part of his farm will grow to perfection, and plant that, and only that variety in that place. If he does otherwise, he will not obtain the best results, and failure often follows.

The peach root likes a light, rich, well-drained and warm soil, and so it would be folly to plant it on low, wet ground. Other roots like colder, stiffer soils. They would not grow as well on lighter, warmer soils. A stranger, by going to a successful fruit-grower, may obtain all this information free, and so make his start in the best way. Having chosen his land with the idea of growing early or late peaches, or early fruit and oranges, or midsummer fruit, the next step is the tree-planting. The ground should be broken up deeply with a plow, and a sub-soiler run after the plow; do not use a subsoiler that throws up the bottom soil, but one that stirs up the earth. Earth should be in as fine a state of division as possible. The stakes for trees should be set by a competent man, as it adds to value of land to have rows straight and also lessens cost of plowing and cultivating. The condition of soil at time of planting should be such as to readily break apart when turned out of a shovel, and earth does not have a slick look when it has been in contact with iron. A hole should be dug not larger than will accommodate the roots of the tree, and soil should be replaced in hole in same position that it naturally holds.

Nearly all the elements of plant food are within a short distance of the surface, and the rain and irrigation water in passing down, carries with it many of the elements that enter into structure of plants, so if surface soil is placed at bottom of hole, most of the plant food contained therein is lost, while in some soils the subsoil contains elements that are not favorably acted upon by air and heat, and do not combine with other elements, and so the action is to starve or injure the tree.

The general rule of planting requires that trees be placed at least twenty (20) feet apart on equilateral system. Many do not know that by planting by above method fifteen (15) per cent more trees can be placed on given area of land than if land was planted by the square system. Figs require a longer distance and perhaps some other fruits also.

The holes for trees should not be dug until just before planting. The earth should be carefully placed about the tree, leaving roots in natural position, the tree usually a little higher than in nursery, as ground will settle and so leave them same depth as before. The earth should be firmed about the tree, and in case ground is least bit dry a bucket or two of water should be placed in hole before it is quite full, and when water has seeped away, then fill hole up level with earth. The horticultural books that have been published give very good directions for planting, including a notched board to insure placing of trees in line after hole is dug and planting tree.

The time for planting deciduous trees is during the dormant period. For citrus trees the best possible time is just when the buds are beginning to swell. All leaves should be removed and water applied as above, and the health and growth of tree assured. Citrus trees may be set out at any time during the year, but March and April are the favorite months in our locality.

## METEOROLOGICAL.

## Some Notes on May Weather in California.

EDITORS PRESS:—Many inquiries have reached this office as to the causes which under the peculiar conditions that have prevailed in California and parts of Nevada and Arizona during the past two weeks. The subject is an important one and should be fairly well understood by those whose interests are affected.

During the first week of May a cyclonic disturbance of decided energy prevailed over Oregon, Washington and British Columbia. Severe gales occurred off the Washington coast and unusually heavy rains were reported as far south as San Francisco. The area of light rains extended southward to Mexico. The barometer was decidedly below the normal in all districts. Before the atmosphere could recover its equilibrium over Southern California, Southern Nevada and Arizona, another storm entered British Columbia and again the barometer began to fall in all districts, attended by the development of heavy cloudiness and cool weather. There has been a rapid succession of these cyclonic areas, passing eastward over British Columbia, which continually affected atmospheric equilibrium over the southern portion of the Pacific Coast States and prevented any attempt at recovery. This region is so far south of the line of storm movements, especially at this season of the year, that weather fluctuations are very gradual there. Once under the influence of a pronounced condition of weather, the change from it is very slow. This is one of the marked climatic differences between the South Pacific region and the North Pacific region.

Within the path of cyclonic movement across this country, from ocean to ocean, we find the maximum of meteorological changes. This region lies between 43 and 53 degrees north latitude. The area of cyclonic disturbance is a region of vertical currents which give rise to high winds, clouds and precipitation. Vertical atmospheric currents prevail over the South Pacific region not always under the influence of cyclonic action but from the effect of the sun's heat upon its vast arid plains. Devoid of vegetation, the earth becomes excessively heated and in turn heats the air resting upon it, therefore low barometric pressure is a normal condition of this region, in summer especially.

The easterly movement of cyclonic disturbances over the North Pacific region intensifies the low atmospheric pressure of the South Pacific region because the two systems of vertical currents are particularly the same, differing slightly as to their origin. The air from the ocean is drawn inland where, under the influence of the vertical currents, its moisture is condensed by the cold of elevation, forming clouds, occasional showers, and giving rise to low temperatures at the surface.

If there is a marked increase in the frequency of cyclonic disturbances passing over the North Pacific Region, there results necessarily an increase in the conditions which give rise to cool, cloudy, threatening weather and showers in the South Pacific Region. For the reason above given the weather of the latter region is particularly dependent upon the movement of cyclonic disturbances along the northern boundary of this country. Even after the cyclonic center reaches eastern Montana and Dakota, its southwest quadrant is still connected with the low barometric pressure in the South Pacific Region. Low barometric pressure and vertical currents over Nevada will cause westerly winds and cool cloudy weather over northern California. If this condition is prolonged by the passage of cyclonic disturbances to the northward, light rains with snow in the mountains will follow, attended by low temperatures in the valleys.

If the vertical currents are checked over Nevada by the presence of an anti-cyclone (high barometric pressure) then the flow of air from the ocean and consequent condensation is prevented. The sun's heat produces its full effect in the quiet air, the ground heats up rapidly and lack of motion in the superincumbent air tends to accumulate the heat over such a region.

JOHN P. FINLEY,  
Lieutenant 19th Infantry, A. S. O.  
San Francisco, May 25.

A GREAT ENGINEERING FEAT.—The greatest engineering feat in the history of the anthracite coal mining is about to begin. It is the commencement of what will be known as the Jeddo tunnel, which will be driven for the purpose of draining the flooded mines of Jeddo and Harleigh. It will be constructed from Butler valley, Pa., to the bottom of Eberwade mammoth vein, a distance of three miles through solid rock, to be eight feet square in the clear. The scheme of tunneling through the mountain first occurred to John Markle, who is to be president of the company, which will bear the title of Jeddo Tunnel Co., Limited. It will open an inexhaustible supply of coal and furnish employment for thousands of people for many years to come. It will also serve the double purpose of draining all the collieries in the valley.

## Unitarian Literature

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## GOOD HEALTH.

## Swallowing Pins, Twigs, Etc.

Several cases of accidental swallowing of things other than food have come to notice since the lamentable death of Rev. Dr. Bothwell of New York, who recently died from swallowing a cork, which lodged in his windpipe. The first is that of a locomotive engineer, who, several years ago swallowed a piece of wood. He was subsequently treated for consumption, on account of violent coughing, but without the other usual accompaniments of such a disease. One day the man had an unusually severe fit of coughing, accompanied by a violent pain in the trachea, in which something seemed to have lodged. With a supreme effort, he ejected it, and it was found to be a piece of wood about an inch long and of the thickness of a lead-pencil. It was thickly coated with mucus and as black as coal. A slight hemorrhage followed, after which the patient felt great relief. He then recollected that one day while running his train he stopped at a depot, beside which there grew an apple tree. He carelessly broke off a small twig and put a piece in his mouth. The train again got under headway, and, while running at full speed, he saw a hull on the track a few yards ahead of the engine. He quickly applied the airbrake and reversed his lever, in order to render the inevitable shock as light as possible. In the sudden surprise, coupled with the strain of throwing back the lever, he made a convulsive inspiration, and unknowingly inhaled the piece of twig, but, in the excitement, forgot all about the swallowing until it was ejected as above. He completely recovered under the care of Dr. Dowds of Brooklyn, New York.

Another case is one which also closely parallels that of Dr. Bothwell. It is related by the *Baltimore Democrat*, of a late date, that Annie Glaesner, aged six years, is dying from the effects of a pin sticking in her throat, which two weeks ago she drew in with a breath in the same manner in which the Rev. Dr. Bothwell inhaled the cork. The accident occurred in school. The child was suddenly seized with a violent fit of gagging. After the paroxysm, she informed the teacher that she had been holding the pin between her teeth, when, in an effort to yawn, she drew it down her throat. She was taken to a hospital, but as yet the doctors have been unable to locate the pin. At times the child suffers terribly, and then she will not feel it again for several hours. The throat is swelling, and it is feared that blood-poisoning has set in.

We have not yet seen any report of the result; but such accidents should be a warning against the too common practice of unneccessarily placing such things in the mouth. There is always great danger in doing so.

## Are the Finger Nails Poisonous

There is a common belief that the finger nails are poisonous, which idea is natural enough, considering the fact that scrotoches made by them are generally quite irritable and much inclined to unusual inflammation. The fact, however, is that the nails themselves have no poisonous properties, but the trouble caused by them is due to the foreign deposits under them. In other words, if one keeps his finger nails clean, scrotoches caused by them will be no more irritable than those produced by any instrument that is considered innocent. The results of an examination made in Vienna show that it is more important that the finger nails be kept clean than is supposed. In the dirt taken from under the nails were found 30 kinds of micrococci, 18 different bacilli and 3 kinds of sarcinae; besides, common mold spores were present in many instances. It would seem from this that the spaces under the finger nails were favorable hiding places for minute organisms which are more or less prejudicial to health, and that therein lies the poisonous element attributed to the nails. This shows that cleanliness of the nails is a very important essential. It is not sufficient to use merely a knife-blade, but at the toilet a nail brush and plenty of soap and water should be called into service. Surgeons long ago learned that deposits under the nails were a menace even to the life of a patient, because through them wounds were easily poisoned, and were thus led to extreme care in the matter of personal cleanliness on their own part and on the part of all their assistants. Before an operation is performed, all who touch the patient or the instruments which are to be used must first clean their hands thoroughly with soap and water, being especially careful to have the spaces under the nails absolutely clean. After this, the hands are put into disinfectant solutions.

DANGER IN FRENCH CANNED GOODS.—Extensive investigation by the Massachusetts Board of health into French canned vegetables has resulted in the order prohibiting their sale in Boston. In every sample tested, it was found that metallic poison existed in the form of copper, and 27 out of 37 samples showed adulteration.

Bolls, Carbuncles, and eruptions of all kinds are nature's efforts to throw off poison from the blood. This result may be accomplished much more effectually, as well as agreeably, through the proper excretory channels, by the use of Ayer's Sarsaparilla.

## A Great Event

In one's life is the discovery of a remedy for some long-standing malady. The poison of Scrofula is in your blood. You inherited it from your ancestors. Will you transmit it to your offspring? In the great majority of cases, both Consumption and Catarrh originate in Scrofula. It is supposed to be the primary source of many other derangements of the body. Begin at once to cleanse your blood with the standard alternative,

## Ayer's Sarsaparilla

"For several months I was troubled with scrofulous eruptions over the whole body. My appetite was bad, and my system so prostrated that I was unable to work. After trying several remedies in vain, I resolved to take Ayer's Sarsaparilla, and did so with such good effect that less than one bottle

## Restored My Health

and strength. The rapidity of the cure astonished me, as I expected the process to be long and tedious."—Frederico Mariz Fernandes, Villa Nova de Goya, Portugal.

"For many years I was a sufferer from scrofula, until about three years ago, when I began the use of Ayer's Sarsaparilla, since which the disease has entirely disappeared. A little child of mine, who was troubled with the same complaint, has also been cured by this medicine."—H. Brandt, Avoca, Neb.

## Ayer's Sarsaparilla

PREPARED BY  
DR. J. C. AYER & CO., Lowell, Mass.  
Sold by Druggists. \$1, six \$5. Worth \$5 a bottle.

## FOR SALE.

Forty Acres of good land one mile from St. Helena, Napa County, on road to Rural Health Retreat. Sixteen acres in vines of best varieties, in full bearing, together with about 200 fruit trees; three acres of alfalfa; one acre of garden; remainder of land unsuitable of cultivation; at present covered with timber. Place well fenced and cross-fenced. New two-story house of eight rooms and closets, hard finished; a good stone cellar under all, 43x23 feet, furnished with first-class cooperage, capacity 14,000 gals., and all the implements for making wine; a stone dairy; large two-story barn (new) and all necessary farming implements; two wells of good water. A FINE HOME. Price \$9000, half cash, balance on time. Address "Farmer," at this office, or G. M., Box 52, St. Helena, Napa Co., Cal.

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SURPRISING INDUCEMENTS OFFERED TO LADIES and Gentlemen to get up Clubs for our Celebrated TEAS, COFFEES & SPICES.

Special terms to consumers. Catalogue mailed free on receipt of name and address.

## Great American Importing Tea Co.

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Agents wanted everywhere.



**HIRES**  
ROOT BEER  
THE GREAT HEALTH DRINK.  
Package makes 5 gallons.  
Delicious, sparkling, and  
appetizing. Sold by all  
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DO NOT FAIL to SEE THE "DOMESTIC" Before Buying a Sewing Machine. It is the leader in practical progress. Send for price list J. W. EVANS, 29 Post St., S. F.



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BUSINESS CHANCE, FOR MAN OR WOMAN  
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BOARDING AND DAY SCHOOL  
FOR BOYS AND YOUNG MEN.  
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Assaying of Ores, \$25; Bullion and Chlorination Assay,  
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IF YOU WANT A FIRST CLASS THOROUGH SCHOOL  
and a pleasant, refined, safe home for your boys,  
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OAKLAND, CALIFORNIA. Next term begins August  
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BEST EQUIPPED ON THE COAST. INDIVIDUAL  
instruction. No classes. Ladies admitted to all  
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per month. Tuition, six months, \$42.  
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FOR SEVENTY-FIVE DOLLARS THIS  
College instructs in Shorthand, Type Writing, Book-  
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for six full months. We have sixteen teachers, and give  
individual instruction to all our pupils. Our school has  
its graduates in every part of the State.

SEND FOR CIRCULAR. E. P. HEALD, President.  
C. S. HALEY, Secretary.



S. F. OFFICE, 29 STEUART ST.

## Codlin Moth Destroyed.



THISSELL'S  
NEW CODLIN MOTH TRAP  
Will entirely clean an orchard in two years.  
ONCHARD RIGHTS SOLD. Satisfaction  
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### The Armstrong Automatic PORTABLE ENGINE and BOILER.

The Best, Lightest, Cheapest  
Engine in the world. Can be  
arranged to Burn Wood, Coal,  
Straw or Petroleum. 6 or 8 H.P.  
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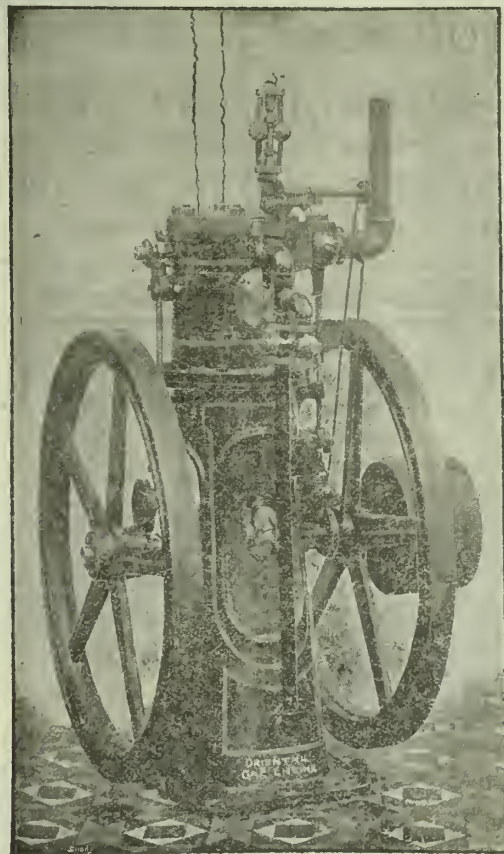
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# Oriental Gas Engine

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The Simplest, Best and  
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ALWAYS READY FOR  
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NO BOILER AND NO DANGER  
FROM EXPLOSION.

USES EITHER CITY GAS  
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At a cost of 25 to 30 cents per day per horse  
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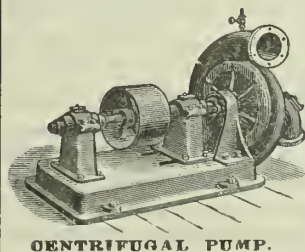
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Every Engine Guaranteed as Represented.

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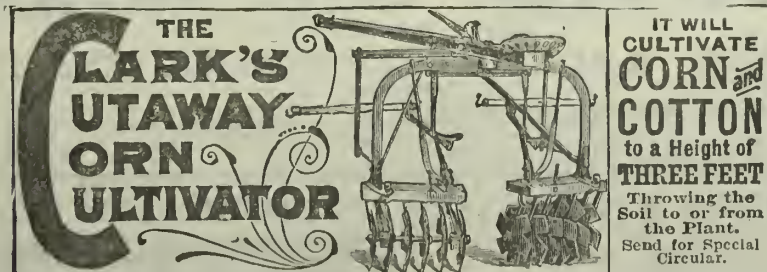
LAP-WELDED WROUGHT IRON TUBING, COUPLED WITH LEAD-LINED  
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We have on hand and can deliver with dispatch the following quantities of this form, viz:

10,000 FT.	8" DIA.	INS.	100,000 FT.	2" DIA.	INS.	25,000 FT.	3" DIA.	INS.
20,000 "	1 1/2" "	"	100,000 "	2 1/2" "	"	25,000 "	3 1/2" "	"
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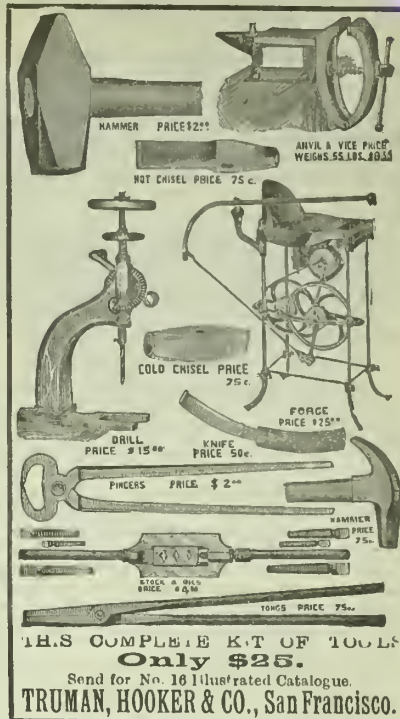
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HIGGANUM MANUFACTURING CORPORATION

JAPANESE INSECT DESTROYER For the protection of Cab-  
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DEWEY & CO. { 220 MARKET ST., S. F. } PATENT AGENTS.  
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## "PRESERVATIVE"

ACKNOWLEDGED THE BEST  
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Pure Preservative  
—FOR—  
MILK, CREAM, BUTTER  
AND CHEESE.

Will keep Milk and Cream sweet and fresh  
even in the warmest and muggiest weather.  
Butter and Cheese kept fresh in their origi-  
nal condition for many months.

It has been the aim of science these many years to  
counteract the disadvantageous influence exerted by  
heat and atmospheric changes upon animal and vegetable  
food. The experiments have been many and the reme-  
dies proposed very numerous, but all were found to be  
ineffectual, impracticable and useless until the discovery  
of Preservative was made.

### A Simple Experimental Test.

Persons who wish to convince themselves of its effec-  
tiveness should send for sample, which we mail free, and  
by taking two separate quarts of new milk; into one put  
1/2 of a teaspoonful of Preservative; put nothing into the  
other, and set them side by side so that the temperature  
of the milk may be the same. See which keeps sweet  
the longer and which raises the more cream.

Preservative is the only genuine preservative that has  
ever been discovered. It is the cheapest, because it is  
not only the BEST, but because, at the same time, it is  
Harmless, Tasteless, Odorless, Simple, Economical, and,  
above all, absolutely Effective.

Circular giving full directions how to apply Preserva-  
tive, as also prices and other information desired, can be  
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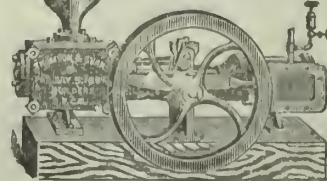
(Successors to THOMSON & EVANS),

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MACHINE WORKS,

Steam Pumps, Steam Engines

and all kinds of MACHINERY.



FRANCIS SMITH & CO.,  
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## Sheet Iron and Steel PIPE!

ALL SIZES.

130 Beale Street, San Francisco, Cal.

Iron cut, punched and formed, for making pipe on  
ground. All kinds of Tools supplied for making Pipe.  
Estimates given. Are prepared for coating all sizes of  
Pipe with a composition of Coal Tar and Asphaltum.



## Agricultural Notes.

(Continued from page 554)

## Solano.

**ENGLISH WALNUTS.**—Dixon Tribune: C. H. Newman has a large number of black walnut trees on his place, which were grafted to English walnuts last year. The trees show a remarkably thrifty growth. The leaves have attained an enormous size, many measuring over a foot in length and from six to seven inches in width. In nearly every instance that has come to our knowledge of walnut trees properly grafted the growth has been healthy and steady, and there is great promise for the future of this industry, which will in time rival that of fruit-culture.

## Sonoma.

**CROP NOTES.**—Forestville Cor. Courier, May 27: Some farmers are cutting hay; others wait to, but are afraid it will spoil, as we have no sun to cure it, but we live in hope of sunshine at some future period. Corn is coming up well, notwithstanding the cold; potatoes are being planted for which much ground is prepared. Cherries are ripening and are a fair crop. Apples are scarce, but peaches and prunes are abundant. Grain and hay are extra heavy. Strawberries are good and blackberries promise to be a large yield. We never saw grape vines start so vigorously, but this weather may bring a blight.

**SERICULTURE.**—Sebastopol Times: A cocoonery on a large scale is being arranged by Mrs. Joseph Farrington of Santa Rosa in the large hop-house on Mr. Farrington's Green Valley ranch. Many thousands of eggs have been procured and provided for. A few years since several hundred mulberry trees were set out on the place, and ample feed is at hand for the worms when hatched. As the season of feeding and spinning lasts only about six weeks, this will not interfere in the least with the hops, of which Mr. P. has a large acreage. Mrs. P. is an experienced sericulturist, and we predict a grand success for her in this enterprise.

**FRUIT BUYING NOTES.**—Healdsburg Enterprise, May 30: Thirty dollars per ton is being offered for two-inch Crawford peaches. Clingstones sell readily for \$35 and \$40 per ton. But little fruit has as yet been contracted for in this vicinity, and none by outside buyers. Around Geyserville, Hunt Bros. and the Santa Rosa Canneries have purchased a large amount. Fruit-growers are now ready to make contracts.

## Sutter.

**CONTRACTING FOR FRUIT.**—Yuba City Farmer: The cannery is contracting for the fruit crop at an early date. At present over 250 tons of fruit have been contracted for. The prices quoted by the buyer for the company varies according to quality of the fruit, and is as follows: Apricots, 1½ cents per lb; early peaches, 1½ cent; cling peaches extra, 2 cents; pears, 1½ cents; and plums, 1 cent.

## Ventura.

**BARLEY AND BEAN CROPS AT LAS POSAS.**—Free Press: There are 700 acres of barley in small tracts of 60 acres and upward to 160 for hay and grain. The farmers are planting beans and corn. There are 2000 acres in corn and 1000 in beans. Lady Washington and Pinkie, with few Limas, have been planted. Few have planted white corn. This land is divided from 60 to 250 acres per man. The balance is rented for grazing purposes.

## Yolo.

**COFFEE PLANT.**—Woodland Democrat: Yolo county people are constantly being surprised at what their soil will produce. One of the latest is the luxuriance with which the coffee plant grows in our climate. Prof. C. E. Dingle has left at this office a sprig of that plant that was grown by Andy McClary near Winters. The grain was first soaked in water by Mrs. M. Cory and after it had germinated, it was planted in the ground where it has been growing ever since. The plant is now in the second year of its growth. It is certainly a useful experiment, and shows that our soil may grow almost anything.

## NEVADA.

**LARGE PURCHASE OF CATTLE FOR WASHINGTON.**—Reno Gazette: George Wright of Toomsa is still here picking up beef cattle for the Washington market. He shipped one train load of 336 head several days ago and another of 339 head on Friday, and expects to ship two or three more trains. His purchases thus far amount to 1227 head, divided up as follows: Fred Dingberg, 123 head; Joe Marz n, 200 head; G. W. Maple, 170; Humphrey & Freeman, 40; Frank Frey, 157; J. N. Evans, 114; John Wright, 40; Polley, H. H. Brown & Co., 200; Louis Dean, 128; and Pete Dalton, 20. In addition to the above, Mr. Wright has bought 100 head that are now on the bank of the Carson awaiting shipment. By the time Mr. Wright gets through overhauling this market there won't be many cattle left. He has paid on an average from 6 to 6½ cents.

## JAY EYE SEE, 2-O.

Mr. J. I. Case, Racine, Wis., writes, "After trying every known remedy, I removed large Bunch, of two years standing, from 3 years old filly with three applications of Quina's Ointment. It is the best preparation I have ever used or heard of. I heartily recommend it to all horsemen." For Cuts, sprains, spavins, Windpuffs, Bunches, worth many times its price. Trial box 25 cents, silver or stamp. Regular size \$1.50 delivered. Address W. B. Eddy & Co., Whitehall, N. Y.

## HAGGIN HORSES!

Supplemental Sale  
Of 100 Head

## HARNESS AND DRAFT GELDINGS, FILLIES AND MARES

From STOCKDALE RANCH, Property of J. B. HAGGIN, ESQ.,

At 11 A. M. on TUESDAY, JUNE 23, 1891,

At SALES YARD, Corner Market St., and Van Ness Ave., San Francisco.

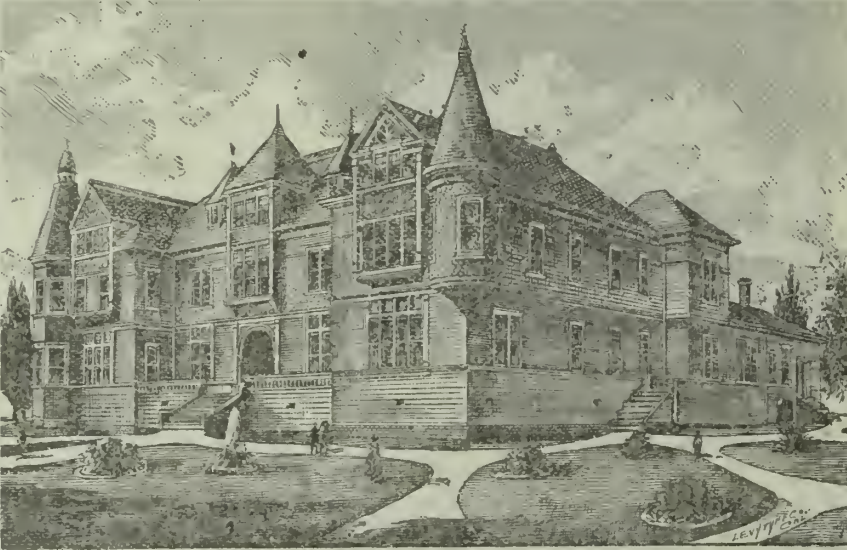
Catalogues are being prepared. Horses may be seen at Sales Yard on and after Saturday, June 20th.

KILLIP &amp; CO., Auctioneers, 22 Montgomery St.

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## OAKLAND, CALIFORNIA.



**THE FABIOLA HOSPITAL** is healthfully and pleasantly located on high ground in the suburbs of Oakland, accessible from every part of the city, the street cars passing the door.

**THE APPOINTMENTS** of the institution are of the best class; the building thoroughly warmed with Harvey's system of hot water heating; rooms large and sunny; neatly furnished with all the comforts of a private home for the sick and the convenience of a first-class general hospital. Sewerage perfect.

**WELL TRAINED NURSES** are in attendance, and patients will receive all nursing and care required for any ordinary case without extra charge; but patients in private rooms, requiring a special nurse in constant attendance, will be charged extra.

**MATERNITY CASES** are given special care, and large sunny rooms are set apart exclusively for such use, with most skilled physicians and careful nurses.

**BOTH HOMEOPATHIC AND ALLOPATHIC PHYSICIANS** are in regular attendance at the hospital, and patients may choose the school of medicine they prefer.

Should patients desire to employ a physician other than those on the hospital staff, they are allowed to do so at their own expense.

Address S. J. FENTON, Resident Physician, Fabiola Hospital, Oakland, California. Telephone No. 948

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CONSIGNMENTS OF GRAIN, WOOL, AND ALL KINDS OF PRODUCE SOLICITED.

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Full Cargoes of Wheat furnished Shippers at short notice.

**ALSO ORDERS FOR GRAIN BAGS, Agricultural Implements, Wagons, Groceries and Merchandise of every description solicited.**

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EIGHTY PER CENT DRY.

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216 Sansome Street, San Francisco.

INCORPORATED A. D. 1864.

Losses Paid Since Organization.....\$3,175,759 21  
Assets, January 1, 1891.....857,512 19  
Capital Paid Up in Gold.....300,000 00  
NET SURPLUS over everything.....278,911 70

## Ditching Machine for Sale.

If any farmer in Russian river or Santa Rosa valley desires a DITCHING MACHINE at a very low price let him address S. E. G., P. O. box 2517, San Francisco.

## THE RAISIN INDUSTRY.

A Practical Treatise on the Raisin Grapes, Their History, Culture and Curing.

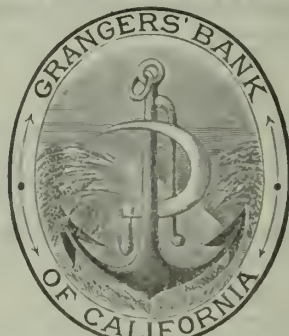
By GUSTAV EISEN.

This is a book of marked character. It is an attractive volume of more than 200 pages, printed on heavy paper, with wide margins, and is well illustrated and neatly bound. It has won the thoughtful attention of specialists, and called forth the hearty commendation of the newspaper press. Prof. E. W. Hilgard, of the University of California, says: "It is certainly a most timely work, and one that your training and experience have fitted you peculiarly to undertake. I congratulate you and the raisin industry upon the work, in which I recognize from the outset the Germanic thoroughness and a close adherence to facts that do not always characterize such publications." Prof. E. J. Wickson, of the same institution, writes: "I discern in the work a breadth of information and a faithfulness in details of practice which will constitute it the standard treatise on the raisin." Col. For-yth says: "With your book in hand the inexperienced farmer or clerk can safely engage in raising grapes with expectation of success from the very start." Says the Fresno Republican: "No work on a technical subject has ever been published that more thoroughly, completely and honestly discussed its specialty than does Dr. Gustav Eisen's work on 'The Raisin Industry.' This valuable book, just out, is published by the H. S. Crocker Company, San Francisco. It is just what it pretends to be, a practical treatise on the raising of grapes, their history, culture and curing." The Rural Press says: "Dr. Eisen's work is broad and scholarly, and yet compact and definite in the development of the subject. It should find a place on the book-shelves of all California horticulturists, and will no doubt go to the uttermost parts of the world." The California makes this reference to the book: "It is a clear, vigorous, fresh and logical treatise; learned, exhaustive, profound and yet extremely practical and useful." The Marquette Appeal says: "A very valuable contribution to the literature of horticulture is the volume on 'The Raisin Industry,' from the pen of Prof. Gustav Eisen. Among California raisin-growers Prof. Eisen has long been recognized as an authority upon everything relative to their industry." The San Francisco Chronicle says: "In this work the author has performed a much needed task, going into the details of every branch of what has become one of the foremost industries of California. No man better qualified for the enterprise could have been found." The State Horticultural Society, by its committee, reports as follows: "We find Dr. Eisen's work a most valuable treatise upon raisin production in all its branches, historically complete, broad and comprehensive in its scope, accurate in its details and a valuable guide in the practice of the growth of the raisin-grape vine and the preparation of its products for the market, and as such we earnestly commend it to the public."

Price Three Dollars, per paid. For sale by DEWEY & CO., 229 Market Street, San Francisco.

## GRANGERS' BANK

OF CALIFORNIA,  
SAN FRANCISCO, CAL.  
Incorporated April, 1874.



Authorized Capital.....\$1,000,000  
Capital paid up and Reserve Fund.....800,000  
Dividends paid to Stockholders.....675,000

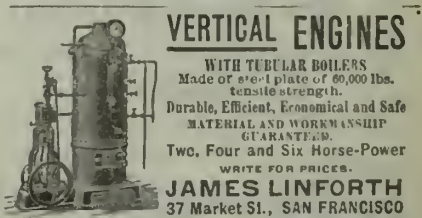
## OFFICERS.

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I. C. STEELE.....Vice-President  
ALBERT MONTPELLIER.....Cashier and Manager  
FRANK McMULLEN.....Secretary  
General Banking Deposits received, Gold and Silver.  
Bills of Exchange bought and sold. Loans on wheat and country produce a specialty.  
January 1, 1891. A. MONTPELLIER, Manager.

THE VERY BEST &amp; CHEAPEST FLOUR.



PRIZE MEDAL OF CALIFORNIA FAIR, 1890



## VERTICAL ENGINES

WITH TUBULAR BOILERS  
Made of steel or iron, 10,000 lbs.  
tensile strength.  
Durable, Efficient, Economical and Safe  
MATERIAL AND WORKMANSHIP  
GUARANTEED.  
Two, Four and Six Horse-Power  
WRITE FOR PRICES.

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## THE DAIRY.

## A Dairymen's Union Formed.

A largely attended meeting of gentlemen interested in the dairy industry was held in the Commercial Hotel, S. F., June 1st. Thirty-five duly accredited delegates from the various dairy centers and several dairymen who had attended of their own initiative assembled to form a dairymen's protective union.

B. G. Tognazzini presided temporarily, and the following permanent officers were chosen: President, B. H. Franklin of Cambria; vice-president, Louis Tomassini of Petaluma; secretary, C. P. Martin.

Letters from ex-Senator Steele and others expressing their sympathy with the objects of the meeting and their regrets at their inability to be present were read; also a communication from the honey-producers of the State asking that they be permitted to co-operate with the association, which was placed on file.

I. Sartori of Seattle sent a long communication on the Northwestern States as a market for California dairy products. He stated that the amount of dairy products sent from California to that section had not increased with the advance in population.

An invitation was then extended to Col. R. R. McGlinchey of Campbell, formerly Secretary of the Illinois State Dairymen's Association and of the Northwestern Dairymen's Association to address the meeting.

Colonel McGlinchey described the successful results of the Illinois association and urged the necessity of such an organization in this State. Similar organizations exist in about 18 or 20 States. An association could watch the markets to see that dealers who sold oleomargarine and butterine had licenses to sell these fraudulent products, and could bring pressure to bear on the Legislature if a change of laws is deemed necessary. The speaker then described the manufacture of oleomargarine and filled cheese, the former of which the French Government had not thought good enough for the paupers in their charitable institutions. Good work could also be done by a State organization in securing information from sister organizations.

The speaker described the manner in which the retailers evaded the national law bearing on the subject, and pointed out how a dairymen's union could co-operate with the revenue officers in its enforcement.

The need of immediate organization having been strongly urged by B. G. Tognazzini and J. Francioli, a committee consisting of B. G. Tognazzini, I. Sartori, A. Tognazzini, John Bonatti, J. Francioli, J. O. Bloom and E. B. Martinetti was appointed to formulate a plan of organization. The convention then took a recess of an hour to enable the committee to prepare their report.

On the convention reassembling at 4 o'clock, the report of the committee was taken up seriatim and adopted with a few trifling amendments.

The committee recommended that an association, to be known as the Dairymen's Union, should be formed to carry on a general commission and produce business in San Francisco, with power to establish agencies or branch offices in other cities. The stock is distributed among the dairymen of the State, and the affairs of the union to be managed by a board of 15 stockholders, each of whom must own at least 20 shares. It is proposed to commence work with 10 per cent of the capital stock paid up.

## A Committee Appointed.

The following 25 members were appointed a committee to obtain subscriptions: Contra Costa—Williams Bros.; Del Norte—Strane Bros.; Marin—J. Blum, L. Tomasini, B. Johnston; Mendocino—Joseph Sheppard; Monterey—Wm. Hatton, J. Corey; Plumas—Chas. Troisi; Napa—Frank Sahlnna; San Luis Obispo—E. W. Steele, Peter Tognazzini, E. Griesinger; San Mateo—R. H. Brown; Santa Barbara—B. Pezzoni, H. H. Johnson, H. Dolcini; Santa Clara—G. B. Polhemus; Santa Cruz—D. D. Wilder, P. Scaroni, Solano—G. Braghetta; Sonoma—C. Fillipini, Z. Sartori, Hollis Hitchcock; Humboldt—W. F. Kansen; Sierra—A. S. Nichols.

A Central Committee, composed of Louis Grolli, Louis Tomasini and E. B. Martinetti, was appointed to receive reports from the Subscription Committee, to deposit the money at Borel's bank, and to call a general meeting of the stockholders for the purpose of incorporating when they think a sufficient amount has been collected.

After votes of thanks for the notices given to the proposed association had been given to the press, considerable discussion followed on a proposal to establish a uniform butter-mold. The sense of the meeting was in favor of a mold which should give a uniform weight, but details were left for future consideration.

Considerable objection was made to a proposal of Colonel McGlinchey that the Union adopt a brand to be used by all its members in stamping their butter. It was urged that inferior and superior grades of butter would thus be marked alike.

A proposal of Mr. Tomasini that the members use the word "Union" at the bottom of their private brand met, however, with general approval.

The convention then adjourned, subject to the call of the special committee.

## List of U. S. Patents for Pacific Coast Inventors.

Reported by Dewey & Co., Pioneer Patent Solicitors for Pacific Coast.

WEEK ENDING MAY 26, 1891.

- 452,903.—DOOR-SECURER—N. Cosman, Fremont, Wash.  
452,946.—GAS GOVERNOR—F. Ellis, S. F.  
453,042.—FRUIT PITTING—W. C. Evans, Oakland, Cal.  
453,045.—HINGE SINKER—W. H. Gutzman, Berkeley, Cal.  
453,117.—CAR AXLE BOX—D. B. James, S. F.  
452,947.—DOOR-SECURER—W. B. Morris, Seattle, Wash.  
452,948.—STRAW SEPARATOR FOR THRASHERS—E. H. Nicholson, Santa Maria, Cal.  
452,942.—AIR BRAKE SYSTEM—Wm. W. Slater, Oakland, Cal.  
453,165.—FAUCET—C. P. Smith, San Diego, Cal.  
453,095.—TRAMWAY—J. T. Vinton, Spokane Falls, Wash.  
452,818.—SANITARY PLUMBING—F. A. Weinshank, Los Angeles, Cal.

The following brief list by telegraph, for June 2 will appear more complete on receipt of mail devices:

- California—San Francisco, James B. Stetson, J. Hammond, W. L. Holman, J. W. Harris, cable gripping mechanism; John T. Smith, W. Copeland, tanning composition; John A. Laguth, mechanical ledger; Emery I. Nichols, governor and valve movement for gas engines; San Diego, Elmore Stewart, car coupling; Santa Cruz, Hiram M. Hamore, non-heating conducting composition; Fresno, James Porteous, raisin and fig press.  
Oregon—Salem, Michael J. McKinnon, tire tightener; Taylor, Geo. W. Rowley, cable clamping device.  
Washington—Seattle, John M. Frisk, J. Readman, logging truck; Colfax, Legrand D. Harding, shoe for deformed feet; Laconner, Peter E. Frostad, rudder for boats.

NOTE.—Copies of U. S. and Foreign patents furnished by Dewey & Co., in the shortest time possible (by mail for telegraphic order). American and Foreign patents obtained, and general patent business for Pacific Coast inventors transacted with perfect security, at reasonable rates, and in the shortest possible time.

## Disinfection of Imported Fruit Trees.

EDITORS PRESS:—Our recent investigation into the manner of inspecting and disinfecting the Eastern fruit trees imported into San Jose during the season of 1890 and '91, impels us to ask for the facts, therein elicited, a wide publication. This is certainly acting in the interest of every fruit-grower of this State. By publishing these facts widely, we may hope to partially if not wholly prevent the importation of both the Eastern plants and trees, and those from foreign countries as well, with their ever attending pests and diseases. If importation can not be stopped we must expect not only all the Eastern fruit pests and fruit tree diseases, but also all of those from the foreign countries from which we import.

Doubtless both the inspection and disinfection done here at San Jose is a fair average of that done throughout the State. The inclosed printed report is probably one-fourth of the proceedings of the meeting reported, still there are facts enough in it to clearly set forth the manner of inspecting and disinfecting as now practiced here at San Jose by order of the State Quarantine Officer. F. M. RIGHTER, Campbells.

[We receive with the above a clipping from the San Jose Mercury of May 24, giving a long report of a lively meeting held at Campbells on May 23. Statements concerning the disinfection were made by the State Quarantine Officer and his deputy, which were not considered satisfactory, and resolutions condemning the process and the officers were passed. The issue will we understand come before the State Board of Horticulture at a meeting in July, and for this reason we do not go into it more in detail at this time. The question of guarding against further importation of fruit pests is, as Mr. Righter urges, exceedingly important, and we trust the Board may be able to satisfy the people in reference to it.—EDS.]

APRICOTS IN VENTURA.—One of our Ventura subscribers writes as follows: "The highest price that has been offered for apricots here this season is \$20 a ton. Some have sold for that, but I for one will fit up and sun dry before I will take it."

The vocal organs are strengthened by the use of Ayer's Cherry Pectoral. Clergymen, lawyers, singers, actors, and public speakers find this preparation the most effective remedy for irritation and weakness of the throat and lungs, and for all affections of the vocal organs.

AMONG the many educational institutions of San Francisco, the San Francisco Business College stands in the front ranks. No one can pay a visit to this school without being impressed that its proprietors are abreast of the times, and that they know how to conduct a Commercial Training school that will thoroughly and practically prepare young men and women for business and for office positions. The Science of accounts is taught here without any reference to a text-book on the subject. Experienced book-keepers are employed as teachers of this branch, and no theory or text-book work is tolerated, but instead, actual business transactions take place of copied forms and entries. This institution has accommodations for several hundred students, employs a large corps of experienced teachers, and ranks with the best schools of its kind on the Pacific Coast. It has been endorsed by the Farmers' Alliance of this State as an institution worthy of the support and confidence of all parents who have children whom they desire to educate thoroughly and practically for business. We take pleasure in commending the San Francisco Business College to our readers. It is a good school.

## Another Haggin Sale.

As shown in our advertising columns, there will soon be another sale of Mr. Haggin's horses. It was originally intended to offer these horses at the sale of May 14th, but this would have necessitated a three days' sale, and it was therefore decided to hold a supplemental one upon Tuesday, June 23d. The animals, chiefly draft, are of the same high class as those offered at the late sale. It may not be out of place to allude to the superior quality of the draft stallions in use at Stockdale rancho. The older ones were purchased in England, Scotland and Australia, and the younger stallions are the produce of these horses and thoroughbred mares, selected in Australia with the greatest care. It is the universal expression, that the animals offered at the late sale was the finest individual exhibit ever made by any one breeder in America. Those in the present sale will fully equal those already sold. The attention of buyers is called to the numerous teams purchased at the last Haggin sale, now working daily upon the streets of San Francisco. For handsome appearance, docility and good, true pullers, they have never been excelled. The horses will be on exhibition from Saturday, June 19th, until day of sale. Killip & Co. of S. F. are the auctioneers.

## TO FRUIT GROWERS.

FRUIT-GROWERS should not fail to note the advertisement of D. D. Wass, on another page. The illustration of the cylinder grader gives a very clear idea of how the machine works. Its simplicity commends it to practical men, and it is finding favor wherever used.

## Farmers Attention.

The Mercantile Agency and Investment Co., No. 16 Post St., S. F., has \$3,000,000 to loan on ranch property in sums of from \$5000 up. You can also renew old loans at a reduced rate of interest by corresponding with the Secretary, stating all particulars. The following well-known business men are officers of the company: Will E. Fisher, Pres.; Eugene G. Davis, Vice-Pres.; Wm. S. Tevis, Treas.; Alfred D. Hall, Sec'y.



## The Only Actual Business College ON THE PACIFIC COAST.

This popular institution stands upon its merits as the live, progressive, practical Commercial Training School of San Francisco.

Individual instruction given in the English Branches, Commercial Law, Penmanship, Commercial Correspondence, Shorthand, Typewriting, and Book-keeping in all its forms.

Expert Accountants of wide experience only, employed as teachers of Book-keeping and Commercial Customs. First-class board at the College Boarding Hall, under the management of members of the faculty, at \$18 per month.

ENDORSED BY THE FARMERS' ALLIANCE OF THE STATE OF CALIFORNIA.

Send for Illustrated Catalogue, and copies of our College Journal. Address

San Francisco Business College, Cor. Market and Jones Sts., San Francisco, Cal.

# INSURE

## YOUR DWELLING, BARNS and GRAIN

WITH THE

# FIREMAN'S FUND

INSURANCE COMPANY  
OF SAN FRANCISCO, CAL.

### HONEST LOSSES PAID IN CASH.

## MERY'S IMPROVED PIONEER BARLEY CRUSHER

— USING —  
The Benoit Corrugated Rollers.

### STILL AT THE FRONT.

VALUABLE IMPROVEMENTS HAVE BEEN ADDED THIS YEAR.

This Mill has been in use on this Coast for 10 years, TAKEN THE PREMIUM AT THE STATE FAIR

Four years in succession, and has met with general favor, there now being

Over 250 of them in use in California, Nevada and Oregon. It is the most economical and durable Feed Mill in use. I am sole manufacturer of the Corrugated Roller Mill. The Mills are all ready to mount on wagons.

GRAINLAND, BUTTE CO., CAL., June 9, 1887  
MR. M. L. MERY—Dear Sir: We have used one No. 2 Roller Barley Crusher now for eight years and have used it steadily during that time; have crushed 45 tons a day and the Crusher is as good to-day as when it came out of your shop. I am satisfied that it is the best mill made. You may reconstruct this testimonial to the best advantage for you and sign our names, for you cannot overrate the merits of your mill.  
F. E. REAM,  
JNO. P. SUTTON.

DURHAM, May 21, 1887.  
MR. M. L. MERY—Dear Sir: In reply to yours of the 19th, would say that I crushed from two to two and a half tons per hour, but could crush three and a half tons if my elevators were large enough to carry the barley from the machine. The No. 1 machine I used at Gridley was run on a sack a minute, but if we got behind we could run through five tons an hour and do good work. The machine I use here is a No. 2. Yours,  
WM. M. TAYLOR.

I thank the public for their kind patronage received thus far, and hope for a continuance of the same.

M. L. MERY. Chico Iron Works, Chico, Cal.

## THREE MILLION DOLLARS

WILL BE LOANED TO FARMERS.  
INTEREST BELOW MARKET RATES.  
— WRITE TO THE —  
MERCANTILE AGENCY AND INVESTMENT CO.  
No. 16 Post Street, San Francisco.  
WILL E. FISHER, Pres. EUGENE G. DAVIS, Vice-Pres. WM. S. TEVIS, Treas. ALFRED D. HALL, Sec'y.



## Breeders' Directory.

Six lines or less in this Directory at 50c per line per month.

### HORSES AND CATTLE.

JOHN LYNCH, Petaluma, breeder of thoroughbred Shorthorns. Young stock for sale.

F. H. BURKE, 401 Montgomery St., S. F.; Registered Holsteins; winners of more first prizes, sweepstakes and special premiums than any herd on the Coast. Pure registered Berkshire Pigs. All strains.

J. H. WHITE, Lakeville, Sonoma Co., Cal., breeder of Registered Holstein Cattle.

P. H. MURPHY, Perkins, Sac. Co., Cal., Importer and Breeder of Shorthorn Cattle and Poland China Hogs.

M. D. HOPKINS, Petaluma, importer and dealer in Eastern registered Shorthorns, Red Polled Cattle, Holsteins, Devons and Shropshire Sheep.

PETER SAKS & SON, Lick House, San Francisco, Cal. Importers and Breeders for past 21 years, of every variety of Cattle, Horses, Sheep and Hogs.

PERRIN STANTON, Sacramento, Cal., Importer and Breeder of Registered A. J. C. C. Jersey Cattle of the Best Strains. Stock for sale.

J. R. ROSE, Lakeville, Sonoma Co., Cal., breeder of Thoroughbred Devons, Roadsters and Draft Horses.

P. PETERSEN, Sites, Colusa Co., Importer & Breeder of registered Shorthorn Cattle. Young bulls for sale.

WILD FLOWER STOCK FARM, Fresno Co. A. Hellron & Bro., Props., S. C. Breeders of thoroughbred strains and Crulshank Shorthorns; also Registered Herefords; a fine lot of young bulls in each herd for sale.

CHARLES E. HUMBERT, Cloverdale, Cal., Importer and Breeder of Recorded Holstein-Friesian Cattle. Catalogues on application.

PERCHERON HORSES.—Pure bred horses and mares, all ages, and guaranteed breeders, for sale at my ranch near Lakeport, Lake Co., Cal. New catalogue now ready. Wm. B. Collier.

WILLIAM NILES, Los Angeles, Cal. Thoroughbred Registered Holstein and Jersey Cattle. None better.

T. PHILLIPS, Simi, Ventura Co., Cal. Pure Bred Percheron Horses for sale.

COTATE RANCH BREEDING FARM, Page's Station, S. F. & N. P. R. R. P. O., Penn's Grove, Sonoma Co., Cal. Wilfred Page, Manager. Breeders of Short Horn Cattle, English Draft Horses, Spanish Merino Sheep and Berkshire Swine.

PURE-BRED HOLSTEIN FRIESIAN Cattle for Sale. Bonnie Brae Cattle Co., Hollister, Cal.

### POULTRY.

E. F. MUSSON, San Leandro, box 155. Buff Cochins.

R. G. HEAD, Napa, Importer and Breeder of Land and Water Fowls. Send for New Catalogue.

DELLWOOD POULTRY YARD, Napa; Thoroughbred Fowls; Eggs \$2 per 13, \$5 per 39.

MADISON H. CRITCHER, Bonnie Doon, Santa Cruz Co., Cal. Thoroughbred Poultry. Settings, \$3.

JOHN MCFARLING, 709 Twelfth St., Oakland, Cal., Importer and Breeder of Choice Poultry. Send for Circular. Thoroughbred Berkshire Pigs.

IF YOU KEEP ANY KIND OF FOWLS, Pet Stock, Dogs, &c., it will pay you to send your address at once to C. R. Harker, Santa Clara, Cal. You cannot afford not to do it. It will cost you but one cent and you will receive something worth ten times that.

GALT POULTRY YARDS, Galt, Sac. Co., Cal. Breed most popular varieties of thoroughbred fowls.

O. J. ALBEE, Lawrence, Cal. Pure bred poultry.

### SHEEP AND GOATS.

L. U. SHIPPEE, Stockton, Cal., Importer and breeder of Spanish Merino Sheep, Durham Cattle, Jacks and Jennys & Berkshire Swine high graded rams for sale.

FRANK BULLARD, Woodland, Cal., Importer and breeder of thoroughbred Spanish Merino Sheep. Premium hand of the State. Choice rams and ewes for sale.

J. B. HOYT, Bird's Landing, Cal., Importer and Breeder of Shropshire Sheep; also breeds Cross-bred Merino and Shropshire Sheep. Rams for sale.

E. W. WOOLSEY & SON, Fulton, Cal., Importers & breeders Spanish Merino Sheep; ewes & rams for sale.

R. H. CRANE, Petaluma, Cal., breeder and importer. South Down Sheep from Illinois and England for sale.

KIRKPATRICK & WHITTAKER, Knights' Ferry, Cal., breeders of Merino Sheep. Rams for sale.

ANDREW SMITH, Redwood City, Cal.; see adv't.

### SWINE.

DELLWOOD, Napa; Thoroughbred Berkshire Pigs.

JOSEPH MELVIN, Davisville, Cal., Breeder of Poland-China Hogs.

WILLIAM NILES, Los Angeles, Cal. Thoroughbred Poland-China and Berkshire Pigs. Circulars free.

TYLER BEACH, San Jose, Cal., breeder of thoroughbred Berkshire and Essex Hogs.

ANDREW SMITH, Redwood City, Cal.; see adv't.

### BEEES.

APIARIAN SUPPLIES for sale by Mrs. J. D. Enas, Napa City, Cal.

### BADEN FARM HERD.

Short Horn Cattle and Draft Horses.

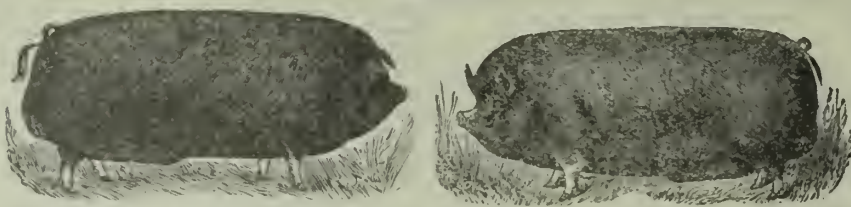
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Baden Station, San Mateo Co., Cal.

## ANDREW SMITH,

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(RECORDED)



DISHFACED BERKSHIRE PIGS,  
IMPROVED POLAND-CHINA PIGS,  
SHROPSHIRE DOWN SHEEP,

Young Stock for sale at reasonable prices. Every animal guaranteed.

OFFICE—218 California St., San Francisco.

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## HOLSTEIN-FRIESIAN CATTLE.

Registered Herd Book Stock of the Aargis, Netherland, Neptune, Clifden, Artis and other families. None better.



Address:

WILLIAM NILES, Los Angeles, Cal.

## Little's Chemical Fluid Non-Poisonous SHEEP DIP.

BEWARE OF CHEAP IMITATIONS.

One gallon, mixed with 60 gallons of cold water, will dip thoroughly 180 sheep, at a cost of one cent each. Easily applied; a nourisher of wool; a certain cure for SCAB. Also

Little's Patent Powder Dip.

(POISONOUS.)

Mixes instantly with water. Prevents the fly from striking. In a two-pound package there is sufficient to dip 20 sheep, and in a seven-pound package there is sufficient to dip 100 sheep.

CATTON, BELL & CO.,

(Successors to FALKNER, BELL & CO.)

NO. 406 CALIFORNIA STREET.

SAN FRANCISCO, CAL.

## MANHATTAN STOCK FOOD.

Saves One-Quarter of Grain Feed.

FRAUDULENT PARTIES have been selling an article, claiming theirs to be the same, and, in order to mislead, have added a prefix to "Manhattan." Our genuine food is called simple "Manhattan Food," with the Red Ball Brand.

628 Howard St., San Francisco, Cal.

## HOWE SCALE CO.,

411 & 413 Market St., San Francisco,

—AGENTS FOR—

## FISKE'S WEATHER VANES



J. W. FISKE, N.Y.

GRAIN AND WAREHOUSE SCALES,

## NEW RAISIN PACKING SCALES

Fruit and Grain Trucks of all Descriptions.

Descriptive Catalogue of all Styles of Scales and Trucks sent on application.

## COLTS BROKEN.

THE SOUTHER FARM,

One and a half miles northeast of San Leandro, Alameda County, has every facility for Breaking Colts properly. Rates very reasonable. Horses boarded at all times.

THE SOUTHER FARM,

GILBERT TOMPKINS, Proprietor,  
P. O. Box 149, San Leandro, Cal

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Veterinary Surgeon,

Member of the Royal College of Veterinary Surgeons, London,

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Corner of Hyde Street,

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Graduate of Ontario Veterinary College, Toronto, Canada.

RESIDENCE AND VETERINARY INFIRMARY:

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OPEN DAY AND NIGHT.

No risk in throwing Horses. Veterinary operating table on the premises.

PARTIES DESIRING, IN GOOD FAITH, to purchase from the U. S. Quarter-Sections of Sugar Pine Timber Land, should write or apply for information to STORY & CUTTING, Surveyors and Land Agents, Rooms 26 and 27, No. 420 California St., San Francisco. Best of references furnished.

## WHEN YOU BUY,

—BUY—

THE BEST!

—THE—

## H. H. H. Horse Liniment

Is certainly the best preparation of its kind in the market. Ranchers, Stock Raisers and Horse Owners of every description will tell you that it does good work every time.

MRS. H. H. MOORE & SONS, Stockton, Cal.—GENTLEMEN: In answer to your inquiry, would state that I used your H. H. H. Liniment on my Holland prize-winning cow, "Lena Menlo," for a wrenched shoulder, and it relieved her very much. She calved the next day, and while still suffering from the sprain gave the largest authenticated quantity of milk ever given on this coast (10½ gallons per day), showing conclusively the great relief received from your remedy. I consider it a necessity in my stable, and when away from home feel perfectly safe, as inexperienced men can do no harm with it, as they can with the more powerful liniments. Respectfully yours,  
FRANK H. BURKE,  
Breeder of Registered Holsteins and Berkshires.  
Menlo Park, Cal., January 22d, 1889.

MANUFACTURED BY

H. H. MOORE & SONS,  
THE DRUGGISTS,

248 MAIN STREET,

STOCKTON, CAL.

## MECHAM & FRITSCH,

—IMPORTERS AND BREEDERS OF—  
Red Polled Cattle.

We have 19 head of Imported Stock.

YOUNG BULLS and CROSSBREDS ON DEVONS for Sale.



H. MECHAM,

Importer and Breeder of Shropshire Sheep.

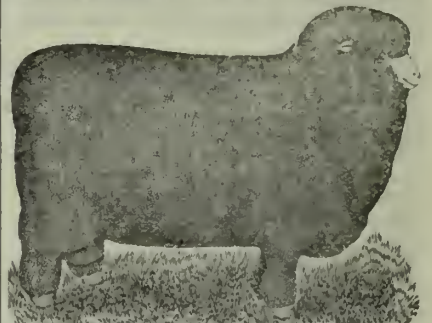
They were all imported from England in '83, or bred direct from Imported Stock, and all registered.



H. MECHAM,

Breeder of American Merino Sheep Without Horns.

The only flock in the United States. When we bought our sheep East 20 years ago, among them was a ram without horns. He grew to be a fine large sheep, shearing at 2 years old, a 12 months' fleece, 35 lbs. of long white wool.



I have bred from him and his get ever since and have never made an out-cross and never used the same ram but one year on the same flock. My rams at two years old will weigh from 160 to 180 lbs., have a strong constitution, without wrinkles, and will shear on an average about 25 lbs., a 12 months' fleece, of long white wool. Rams and Ewes for sale. P. O. Address,  
Stony Point, Sonoma Co., Cal.  
K. R. Station, Petaluma.



THE LATEST AND BEST.

BEST TREE WASH.

"Greenbank" 98 degrees POWDERED CAUSTIC SODA (tests 99 3/4 per cent) recommended by the highest authorities in the State. Also Common Caustic Soda and Potash, etc., for sale by

T. W. JACKSON & CO.,

Manufacturers' Agents,

104 Market St. and 8 California St., S. F.



## RUPTURE AND PILES.

WE POSITIVELY CURE all kinds of Rupture and Rectal Diseases, no matter of how long standing. In from 30 to 60 days, without the use of KNIFE, DRAWING BLOOD, or DETENTION FROM BUSINESS. Terms: No Cure, no Pay; and no Pay until Cured. If afflicted, come and see us or send stamp for pamphlet. Address:

DRS. PORTERFIELD & LOSEY,

889 Market Street. - San Francisco

For Sale Cheap.

A Steam Threshing Outfit Complete

In Good Condition. For particulars address

SOUNEY BROS. Manufacturers of Bone Teeth,  
2109 P Street, Sacramento.

## G. W. DIMICK,

BREEDER OF REGISTERED

Shorthorn, Aberdeen-Angus

and Jersey Cattle.

Young Stock for Sale. Correspondence

Solicited. G. W. DIMICK, Hubbard, Oregon.





## POULTRY, ETC.

THE  
OLD WOMAN  
WHO  
Lived in a Shoe  
Has made her fortune in the  
Chicken Business



To find out how she did it send 8c in stamps for 80-page colored catalogue of Incubators, Thoroughbred Poultry and Poultry appliances to the

**PACIFIC INCUBATOR CO.,**  
1317 Castro Street, Oakland, Cal.

—THE—  
**HALSTED INCUBATOR**  
COMPANY,  
1312 Myrtle Street, Oakland, Cal.  
Send Stamp for Circular.

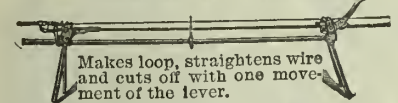
**CREOSOTONE**  
THE  
GREATEST  
Flea & Chicken Lice Killer.

Ask your dealer for it, or send for Free Circular to  
Petaluma Incubator Co., Petaluma, Cal.



IT WILL SUIT YOU.

**U. S. BALE-TIE MAKER.**



Makes loop, straightens wire and cuts off with one movement of the lever.



Lightning Lifting Jack, for hay presses, wagons, etc. All steel and very powerful.

Self-adjusting Wire Reel. Best in the world. Takes any size coil.

Also Hay Presses and Hay Press Supplies of all kinds. Weighing attachments and repairs for any press. Send for prices and catalogue.

**U. S. HAY PRESS SUPPLY CO.,**  
KANSAS CITY, MO.

**STOCK SCALES**

4 TON **OSGOOD** \$45.  
U.S. STANDARD, FULLY WARRANTED.

Delivered at your R. R. Station and ample time for building and testing allowed before acceptance.

**OSGOOD & THOMPSON, Binghamton, N. Y.**

PORTABLE PLATFORM SCALES, TRUCKS, ETC.

Twenty-five per cent cheaper than any other on the market. Send for Catalogue.

**C. H. LINDEMANN, Agent,**  
126 KEARNY ST., SAN FRANCISCO.

**THE KRIEBEL ENGINE**

And Plain Vertical Boiler. Mounted on a Combined Base. A very Cheap and Economical Engine.

Made of the very best material. 2 & 8 HORSEPOWER. Write for Prices.

**TRUMAN, HOOKER & CO.,**  
SAN FRANCISCO.

**HOME INDUSTRY.**

If you buy **Mohr & Yoerk's**

**CANNED (COOKED) CORN BEEF**

You will get the best and at the same time benefit the producer. Also manufacturers of BONE DUST.

## THE GIANT POWDER COMPANY.

PATENT OWNERS OF

**NOBEL'S DYNAMITE,**  
**NOBEL'S EXPLOSIVE GELATINE,**  
**NOBEL'S GELATINE-DYNAMITE,**  
Best and Strongest Explosives in the World.

As other makers IMITATE our Giant Powder, so do they Judson, by Manufacturing a second-grade, inferior to Judson.

**BANDMANN, NIELSEN & CO. General Agents, San Francisco.**

## JUDSON POWDER,

The Only Reliable and Efficient Powder  
For Stump and Bank Blasting. From 5 to 20  
pounds blows any Stump, Tree or Root clear  
out of ground at less cost than grubbing.  
Railroaders and Farmers use no other.

## STANDARD MOWER

ONE MAN AND TEAM instead of two.  
TWENTY ACRES A DAY instead of ten.

**CUTTER BAR** has no nuts or  
obstructions on  
top; the obliquely

**RECESSED GUARDS**  
bolt to finger bar with nuts on  
under side, leaving upper side of  
cutter bar perfectly smooth surface.

**MAIN WHEELS** made interchangeable  
—one wheel fits either side of mower.



**THE FOOT LIFT** raises cutter bar with perfect ease without the aid of hand lever, the first ever made.  
**EASILY TILTED.**

can be entirely taken apart and put together again by the farmer  
with a common wrench. SEND FOR SPECIAL CIRCULAR.

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**SACRAMENTO, CAL.**

Agents for Northern California.

**FARMERS' UNION,**

**SAN JOSE, CAL.**

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**CELEBRATED RELIEF WIND MILL.**

**RELIABLE!**

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**Over 5000 in Use!**

**IT COMBINES SIMPLICITY**

**AND STRENGTH!**

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and San Joaquin Counties.

Our Irrigating Wind Mills of large size, with 20 to 30 foot wheels, manufactured to  
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Troughs and Irrigating Outfits. Send for Our Circular.

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**Yes! FOR FARMERS! FOR EVERYBODY!**

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class or for one association or organization, but for the  
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TABLE PEACHES, very fine, per doz. \$2.10, \$2.25

TABLE PLUMS, " " 1.40, 1.50

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TABLE BARTLETT PEARS, " 2.10, 2.25

TABLE FRUIT, assorted, all kinds 1.75, 1.85

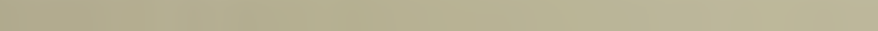
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Metal Engraving, Electrotyping and Stereotyping  
done at the office of this paper.



## S. H. MARKET REPORT

## Market Review:

## DOMESTIC PRODUCE, ETC.

**SAN FRANCISCO, May 27, 1891.**  
Cool weather has continued to prevail, greatly benefiting cereals and vegetables in general, and not doing any perceptible damage to fruits, hay, etc. It now looks as if California farmers, as a whole, will have a more prosperous year than ever before enjoyed. The money market is easy, although there is some talk of closer working when crops begin to move. The English market has fluctuated. The following is to-day's cablegram:

**LIVERPOOL, June 3.—Wheat—**Quiet but steady. California spot lots, 8s 5d; off coast, 4s; just shipped, 4s 6d; nearly due, 4s 3d; cargoes off coast, very quiet; on passage, inactive; Mark Lane wheat quiet; English country markets, quiet; French country markets, steady; wheat and flour in Paris, quiet.

## Liverpool Wheat Market.

The following are the closing prices paid for wheat options per cwt. for the past week:

	June.	July.	Aug.	Sept.	Oct.	Nov.
Thursday.....	86d	87d	87d	88d	88d	88d
Friday.....	86d	87d	87d	88d	88d	88d
Saturday.....	86d	87d	87d	88d	88d	88d
Sunday.....	86d	87d	87d	88d	88d	88d
Monday.....	86d	87d	87d	88d	88d	88d
Tuesday.....	86d	87d	87d	88d	88d	88d

The following are the prices for California cargoes for off coast, nearly due and prompt shipments for the past week:

	O. C.	P. S.	N. D.	Market.
Thursday.....	44 3/4	44 3/4	44 3/4	Quiet.
Friday.....	44 3/4	44 3/4	44 3/4	Quiet and Firm.
Saturday.....	44 3/4	44 3/4	44 3/4	.....
Sunday.....	44 3/4	44 3/4	44 3/4	.....
Monday.....	44 3/4	44 3/4	44 3/4	Inactive.
Tuesday.....	44 3/4	44 3/4	44 3/4	Inactive.

## Eastern Grain Markets.

The following shows the closing prices of wheat at New York for the past week, per cental:

Day.	June.	July.	Aug.	Sept.	Dec.	Jan.
Thursday.....	185	181	175	173	176	.....
Friday.....	186	181	175	173	176	.....
Saturday.....	185	177	173	172	174	.....
Sunday.....	185	177	173	172	174	.....
Monday.....	185	177	173	172	174	.....
Tuesday.....	185	177	173	172	174	.....

The closing prices for wheat have been as follows at Chicago for the past week, per cental:

Day.	June.	July.	Aug.	Sept.	Dec.	Jan.
Thursday.....	167	160	162	162	162	.....
Friday.....	167	160	162	162	162	.....
Saturday.....	167	160	162	162	162	.....
Sunday.....	167	160	162	162	162	.....
Monday.....	167	160	162	162	162	.....
Tuesday.....	167	160	162	162	162	.....

**NEW YORK, June 3.—Wheat—**\$1.09 1/4 for June; \$1.07 1/4 for July, \$1.03 1/4 for August, \$1.03 1/4 for September, \$1.03 1/4 for October, \$1.04 1/4 for December and \$1.08 for May.

**CHICAGO, June 3.—Wheat—**98 3/4 c for July, 95 c for September and 96 1/2 c for December.

## Eastern Wool Markets.

**NEW YORK, May 29.—Bradstreet's** will say: The wool markets are reported quiet. This is not the time, however, for a heavy movement. Wools from the new clip are coming forward slowly. The first lots are always high, but this year they are not wanted at the prices growers are asking. The manufacturers are said to have taken very little of this wool, and the largest dealers have only small lots. Buying is confined to the choicest lots, there being no demand for inferior grades. The values on most wools in Eastern markets are lower. A weak demand is still noted for Ohio and Michigan wools. Manufacturers continue to take Australian in place of domestic fleeces. The best foreign wools are firm and choice lots are in good demand. Dealers who secured only the best wools at the London sales are said to have made large profits in their investments. The movement in inferior grades of Australian is very slow and holders are offering their stocks below cost. There is practically nothing doing in either Texas or California wools. Choice Territories are considered good property, as sales of these are easily made and values are firmer than on any other grade of domestic wool. Carpet wools are quiet.

**NEW YORK, June 1.—**The indifference of wool buyers is unfeigned, prices are undecided, unsold remnants becoming less and less attractive, and country prices are regarded with genuine caution. This is likely to be so while primal dealers use sales of picked parcels as standard value. Some of the deputed buyers have returned from Texas empty handed. Much animation is not probable at the seaboard among the average traders until, at least, larger blocks of stock are under view. Considerable mill machinery is idle at present. Orders for some fabrics ought to be begun upon by June, but there is no inclination or reason to force the season, in the present aspect, of garments or cloth. Boston sales were light, 472,000 foreign, 1,717,000 domestic. Philadelphia is waiting for supplies from the slowly marketing new clip. There is no buoyant feeling.

## Foreign Grain Review.

**LONDON, May 4.—The Mark Lane Express** says: English wheats are firm and prices stationary. In foreign, changes in values are fractional. Indian is 3d cheaper. Californian 3d higher. Californian futures are quoted at 44 3/4 for prompt and 45s for September shipment. Oregon is quoted at 45s for June shipment. Russian and Indian red wheats were 6d lower, and were hard to place at a decline. Flour was weak. Both flat and round corns 3d to 6d lower. Corn is weak and lower.

## California Fruits East.

**NEW YORK, June 1.—Raisins** continue weak. Buyers helped by further arrivals. Three Crown boxes, \$1.10 @ 1.20; good layers, \$1.35 @ 1.40; bags here neglected, as cheap boxes take their place, besides Valencia are down to 4 1/2 c. Dried apricots pushed at low prices to make room for new at 10c for bags; 12 @ 13c for boxes; some sound but discolored bags, 7 @ 9c; best offer for new crop, 11 @ 11 1/2 c landed here. Dried prunes limited to grocery demand; forties and fifties at 10c; fifties at 9 1/2 c; sixties at 9c; no small offerings; plenty of French, however, at 7 1/2 c for sixties, which shows our close competitive rates with the foreign market. Green cherries first two cars are in fine order and brought \$3.30, a remarkable auction return for tender fruit that has crossed the continent; Tartarians, \$2.75 @ 4.15, in ten-pound box; others about \$1.50; second car in poor condition range at \$1.40 @ 2.40.

**CHICAGO, June 3.—Porter Bros. Company** sold

to-day at auction one carload California fruit. Seedling apricots brought \$2.15 @ 2.70; Pringle apricots, \$1.50 @ 2.35; peaches, \$3.85; Black Tartarian cherries, \$1.75 @ 2.15; Royal Anne cherries, \$2.15 @ 2.20.

## Local Markets.

	Buyer Season.	Seller 1891.	Buyer 1891.
Thursday.....	160	112	110 1/2
Friday.....	170	111 1/2	111
Saturday.....	.....	.....	.....
Monday.....	.....	111	110 1/2
Tuesday.....	.....	.....	110 1/2

\*After July. †After August.

	Buyer Season.	Seller 1891.	Buyer 1891.
Thursday.....	171	170	163 1/2
Friday.....	170 1/2	170	163 1/2
Saturday.....	170 1/2	170	163 1/2
Monday.....	169	175 1/2	162 1/2
Tuesday.....	168 1/2	175	161
Wednesday.....	168 1/2	174	159 1/2
Thursday.....	168 1/2	174	159 1/2

\*After August. †After September.

**BAGS—**The market continues to rule steady at 7 @ 7 1/2 c for hand sewed of standard size.  
**BARLEY—**The sample market has held strong throughout the past week, with higher prices on a settling basis than have obtained for years. In futures, trading has been fair and at firm prices. The following are the reported sales on to-day's Call:

**Morning Session:** Buyer 1891, after August 1st—200 tons, \$1.16; 100, \$1.16 1/2. Buyer 1891, after July 1st—100 tons, \$1.21 1/2. Seller 1891—200 tons, \$1.10 1/2. Buyer season, after August 1st—100 tons, \$1.23 1/2 cwt. **Afternoon Session:** Seller 1891—500 tons, \$1.10 1/2 cwt. 100, \$1.10 1/2 cwt. Buyer 1891, after August 1st—600 tons, \$1.17; 200, \$1.17 1/2 cwt.

**BUTTER—**Receipts are large, yet the market does not go off much, packing and orders apparently absorbing all. The cool weather continues in favor of sellers.

**CHEESE—**The market shaded off a fraction, closing weak. Stocks are large, as are receipts; the demand is only fair.

**EGGS—**Under light receipts and a good demand the market is strong at an advance.

**FLOUR—**The market does not show any material change. Receipts from up north are slightly larger.

**WHEAT—**The trading in the sample market is restricted by reason of light supplies. The market continues strong. In futures, trading has been fair. On to-day's Call the reported sales are as follows:

**Morning Session:** Buyer 1891—100 tons, \$1.73. Seller 1891—700 tons, \$1.59. Buyer 1891, after August 1st—100 tons, \$1.66 1/2 cwt. **Afternoon Session:** Seller 1891, 200 tons, \$1.58 1/2; 1200, \$1.59; 600, \$1.59 1/2. Buyer 1891, after August 1st—100 tons, \$1.65 1/2; 100, \$1.65 1/2; 500, \$1.66; 100, \$1.66 1/2.

## Market Information.

## Produce Receipts.

Receipts of produce at this port for the week ending June 2d, were as follows:

Flour, qr. sks.....	66,350	Middlings, sks.....	3,177
Wheat, cts.....	203,081	Alfalfa, ".....	.....
Barley, ".....	40,419	Chicory, bbls.....	200
Rye ".....	914	Broomcorn bbls.....	.....
Oats ".....	6,331	Hops, bbls.....	.....
Corn ".....	11,641	Wool, ".....	2,463
*Butter ".....	2,627	Hay, tons.....	1,188
do bxs.....	853	Straw ".....	70
do bbls.....	.....	Wine, gals.....	217,120
do kegs.....	51	Brandy, ".....	13,350
do tubs.....	.....	Raisins, bxs.....	1,550
do 1/2 bxs.....	.....	Honey, cs.....	.....
†Cheese, cts.....	833	Walnuts, sks.....	.....
do bxs.....	121	Flaxseed, ".....	1,010
Eggs, doz.....	34,260	Mustard, ".....	.....
do " Eastern.....	34,920	Almonds, ".....	.....
Beans, cts.....	1,704	Peanuts, ".....	.....
Potatoes, sks.....	20,043	Pocorn, ".....	.....
Onions, ".....	4,053	Beet sugar, bbls.....	.....
Brans, ".....	5,232	do do sks.....	.....
Buckwheat ".....	.....	.....	.....
*Overland.....	cts.	†Overland.....	cts.

## Cereals.

A New York Exchange just to hand says: The market now is in the hands of the traders, and there is a general feeling that nothing can be told about the next swing right off. As far as the old crop is concerned the *Produce Exchange Weekly*, from careful calculation, concludes that as far as the old supply is concerned the consumption and exports indicate either that the crop of last year was underestimated 22,000,000 bushels, or that we have intrenched that much on an already very small reserve. The bull position favors the latter idea, and the claim is made that notwithstanding hop prospects for 550,000,000 bushels that the home milling demands, and the sales already made for export will absorb all the farmers can possibly ship. Up to October 1st prices will go away up in the air. If, however, the movement exceeds the demand, some of the mills may be looking for buyers.

The local wheat market continues to hold strong. The stock of wheat in the San Francisco, Port Costa and Stockton warehouses aggregated on June 1st, about 38,000 tons, while the engaged tonnage in port has a carrying capacity of about 60,000 short tons, which to load will require 22,000 tons of additional wheat. Well-informed parties claim that outside of the above three points, the stock of old wheat in the State on June 1st did not exceed 35,000 tons, while the quantity to come down from Oregon and Washington will be quite light. Continued cool weather is proving of the greatest benefit to the maturing crop. Many thousands acres, which with hot weather would have proven a failure, will turn out fully 50 per cent of an average. The berry will also be plumper, but in some localities the color may not be quite so bright as it could have been with clearer skies. The Oregon Weather Bureau reports on May 30th, crop prospects west of the Cascades as follows: "Warmer weather is needed to develop heading of wheat, oats, etc., but the stalk is developing well. Spring sown wheat has made excellent progress. General reports indicate the most flattering prospects for the wheat crop throughout this section." East of the Cascades the rains

the past week were of inestimable benefit and value to the wheat crop. The east winds did some damage in parts of Umatilla, Morrow, and Wasco counties. The effects of the rain is supposed to offset the damage. The rains have revived the excellent wheat prospects throughout this section.

The barley market has been excited and quite difficult to correctly quote. The oft-reported information given by us of short supplies was fully corroborated by the high price reached (\$1.76 per cental) for spot. But this price was only secured by forced purchases to fill shorts. The Produce Exchange fixed settling prices at \$1.65. The stock of old in the State is very light, and cool weather retards harvesting, while the consumption is very heavy, owing to so much fruit hauling and other outdoor work. Up north supplies are about exhausted. Cool weather is a great assistant for maturing crops to turn out a larger yield than claimed even a week ago, but then we will want it all.

Oats are barely steady. The supply, it is said, is ample for all legitimate requirements up to harvest. Oregon continues to send us fair supplies.

Corn has moved up several points, under strong holding and a fair demand. The stock is undoubtedly short of requirements up to harvest. At the East, the market holds strong at full figures.

Rye is barely steady.  
Geo. A. Abel, official inspector of the Produce Exchange Call Board, reports the following stocks of grain, etc., in city Call Board warehouses at the close of May, and on the 1st of that month:

Tons—	1st.	31st.
W. eat.....	4,225	1,803
B. rye.....	6,607	6,541
Oats.....	1,659	1,927
Corn.....	1,392	1,166
Barley.....	216	178

At the close of May, 1890, the stocks were as follows: Wheat, 3596 tons; barley, 13,869; oats, 2509; corn, 524; bran, 150.

The stock of wheat, May 31st, was as follows:

San Francisco.....	Tons.
Stockton.....	1,808
P. & Costa.....	13,195
Total.....	23,007

## Feedstuff.

All kinds of ground feed are strong, with an advance in feedmeal and rolled barley. There is a decided falling off in the output of both bran and middlings. Oregon is sending us a little of both.

Quotations for old hay are withdrawn. New is coming in more freely, with the quality showing a decided improvement. The crop of the State, taken as a whole, will be barely enough to meet requirements up to harvest in 1892. The stock of old hay is about exhausted.

## Live-stock.

Bullocks and mutton sheep are steady. Cool weather admits a longer run on the former than usually obtains. Hogs are in demand at an advance. Lambs and calves are steady.

The market for dressed cattle is quoted as follows (to obtain the price on foot, take off from the price for stall-fed one-third to one-half, according to the nature of the feed and time fed; and for grass-fed take off the price from 40 to 60 per cent):

**HOGS—**On foot, light grain fed, 5 1/2 @ 5 3/4 c lb. dressed. —@—c lb. heavy, 5 @ 5 1/2 c lb.; dressed. —@—c lb. Stock hogs, 4 1/2 @ 4 3/4 c lb. **BEEF—**Stall fed, 6 1/2 @—c lb.; grass fed, extra, 6 @—c lb.; first quality, 5 1/2 @—c lb.; second quality 5 @—c lb.; third quality, 4 @—c lb. **VEAL** and thin cows, 2 @ 3c lb. **VEAL—**Small, 6 @ 7 1/2 c lb.; large, 5 @ 6 1/2 c. **MUTTON—**Wethers, 7 1/2 @ 8c lb.; ewes, 7 @ 7 1/2 c lb.; spring lamb, 7 1/2 @ 9c lb.

## Fruits.

The first peaches of the season came to hand June 1st. Dutton, Vacaville was the shipper. They fetched 25c per lb. Cherry plums came in from different places and sold at \$1.50 a box. The receipts of cherries and apricots are increasing, causing lower prices to obtain. Cannery are buying the former. They are paying the following contract prices, 30 @ 45c per ton according to quality; apricots, 30 @ 35c; cherries, 30 @ 60c lb. according to quality; Bartlett pears, 35 @ 45c. Driers are paying 35 @ 45c for prunes.

The apples, pears and peaches coming in are most too green and small for ready sale. They and also apricots will probably be quotable by next week although cool weather retards ripening.

In berries the market is fairly well supplied. There is a great lack of warmth to force maturing and to improve the quality. Cannery are not buying so far as we can learn. Raspberries are still high. Currants are coming in quite freely with prices shrinking.

Dried fruits are slow of sale. The stock is light. Raisins continue heavy under free receipts for the season. Our statement made in September 1890 that the crop would be about 2,200,000 boxes is more than verified. The crop was nearer 2,400,000 boxes. Those who acted on our information and sold made money. It will not do to believe papers whose advertising patronage and support comes from buyers—they invariably mislead.

The Oregon Weather Bureau reports May 30th the fruit crop in the Willamette Valley as follows: "Quite a number of correspondents report fruit falling from the trees. Frosts which at the time were not supposed to have injured, evidently did considerable damage. Prunes, cherries and peaches were injured. Cherries especially will not prove to be the crop hoped for. Yamhill, Clackamas, Linn, Benton, Lane, and Douglas counties report these fruit conditions. Curl leaf or yellows observed at Dayton."

About all the peaches in Rogue River valley (Oregon) have been contracted for by the Salem (Oregon) cannery.

## Vegetables.

The weather is generally good for garden truck, as it keeps it from too rapid growth and allows the market to be more evenly fed. Shipments of cabbage, cauliflower, etc., out of the State are falling off. Cannery are running on peas and will soon be able to handle string beans. Bay squash put in an appearance this week.

Quotations for old potatoes are withdrawn, as the trade is running largely if not entirely on new. The latter are well matured and of good quality. The crop this year is simply enormous. Eastern shipments aid no little in keeping the market fairly steady. Oregon reports favorable crop prospects.

Silverskin and red onions are in good supply. Matured suitable for filling distant orders are wanted.

## Miscellaneous.

From reliable advices up to June 3d, the following summary of tonnage movement is compiled:

	1891.	1890.
On the way to	.....	.....
San Francisco.....	321,841	212,514
San Diego.....	18,798	14,898
San Pedro.....	13,019	13,655
Oregon.....	28,163	23,987
Puget Sound.....	30,764	21,029

Totals.....412,585 286,083

In port at

San Francisco, disengaged.....	13,912	4,616
" engaged for wheat.....	36,111	23,680
" for new crop.....	16,312	.....
San Diego.....	2,009	12,344
San Pedro.....	10,596	.....
Columbia River.....	.....	.....
Puget Sound.....	.....	.....

Totals.....81,521 40,640

To get the carrying capacity, add 65 per cent to the registered tons as given above.

From July 1, 1890, to May 28, 1891, the following are the exports from this port:

	1891.	1890.
Wheat, cts.....	12,837,975	12,891,737
Flour, bbls.....	1,094,572	1,034,241
Barley.....	256,488	945,476

Poultry is irregular, with turkeys, broilers and geese lower. Liberal supplies of fruit restrict the demand. Considerable of the stock coming in are poor to fair, good to choice are wanted.

Hops are naturally unchanged. Reports of hop louse in Oregon and Washington cause some growers to hesitate in making contracts for future delivery. The stock of old is about exhausted.

Wool is in large stock, with assortments good to select from. Large holders do not appear disposed to force sales, believing that better prices will obtain by fall.

Beans are steady. Receipts are light and so is the demand. The crop this year will probably be the largest on record. It is said that buyers are offering 2 @ 2 1/2 c for new crop limas.

Honey and beeswax are virtually unchanged.

## Domestic Produce.

Extra choice in good packages fetch an advance on top quotations, while very poor grades sell less than the lower quotations.

BEANS AND PEAS.	do	do	do
Bayo, cts.....	3 30	do paper shell	9 1/2 @ 10
Butter.....	2 70	do Chilly	4 @ 5
Peas.....	3 00	Almonds, bbls.....	.....
Red.....	2 50	Softshell.....	15 @
Pink.....	2 20	Paper shell.....	16 @
Small White.....	3 00	Brazil.....	7 1/2 @
Lima.....	3 10	Pecans small.....	12 @ 14
Fla Peas, bike.....	1 65	do large.....	15 @ 18
do green.....	2 00	Peanuts.....	10 @ 11 1/2
do Eastern do.....	2 50	Flour.....	7 @ 8
do Niles.....	1 65	Hickory.....	12 @ 15
Split.....	4 1/2	Orehestnuts.....	9 @ 11

**BROOM CORN.** On foot Extra 100 @ 11 1/2 c. Fair to Good.....70 @ 85 c. Poor.....50 @ 60 c.

**ONIONS.** Red.....80 @ 11. Silver Skin.....75 @ 100.

**P**



## PACIFIC COAST WEATHER FOR THE WEEK.

(Furnished for publication in this paper by officer in charge of branch Signal office, Division of the Pacific.)

DATE.	OFFICE OF THE CHIEF OF BUREAU OF WEATHER SERVICE, U. S. DEPARTMENT OF AGRICULTURE, WASHINGTON, D. C.																																			
	Olympia.			Portland.			Eureka.			Red Bluff.			Sacramento.			S. Francisco.			Fresno.			Keeler.			Los Angeles.			San Diego.								
	Weather.			Temp.			Wind.			Weather.			Temp.			Wind.			Weather.			Temp.			Wind.			Weather.			Temp.			Wind.		
	Rain.	Temp.	Wind.	Rain.	Temp.	Wind.	Rain.	Temp.	Wind.	Rain.	Temp.	Wind.	Rain.	Temp.	Wind.	Rain.	Temp.	Wind.	Rain.	Temp.	Wind.	Rain.	Temp.	Wind.	Rain.	Temp.	Wind.	Rain.	Temp.	Wind.						
May 27.	.00	60	W	.08	62	S	.00	58	Nw	.30	62	S	.06	64	SW	.00	60	W	.00	70	Nw	.00	72	S	.00	62	W	.00	64	W						
28.	.00	58	W	.12	60	SW	.00	58	Nw	.00	68	W	.00	70	SW	.00	60	SW	.06	72	W	.00	72	S	.00	64	W	.00	66	W						
29.	.00	61	N	.01	56	W	.06	56	W	.28	60	NE	.00	64	SW	.04	58	Nw	.00	72	Nw	.02	70	Nw	.00	64	W	.00	64	W						
30.	.00	72	N	.01	68	NE	.28	56	W	.40	52	S	.03	56	S	.04	58	W	.00	70	Nw	.00	68	S	.00	64	W	.00	64	W						
31.	.00	64	Nw	.00	66	S	.12	54	N	.00	70	S	.00	66	Nw	.00	60	W	.00	68	Nw	.01	60	Nw	.00	62	W	.01	64	SW						
June 1.	.00	64	N	.00	62	N	.00	56	Nw	.00	72	S	.00	68	SW	.00	56	W	.00	74	N	.00	68	SW	.00	62	W	.04	60	SW						
2.	.00	66	N	.00	66	N	.00	56	Nw	.00	74	W	.00	66	SW	.00	56	SW	.00	76	W	.01	64	Nw	.00	62	W	.00	62	W						
3.	.00	...	...	.10	...	...	.53	...	...	.93	...	...	.14	...	...	.64	...	...	.00	...	...	.10	...	...	.00	...	...	.05	...	...						

EXPLANATION. Cl. for clear; Cy. cloudy; Fr. fair; Cm. calm; - indicates too small to measure. Temperature wind and weather at 5 P. M. (Pacific Standard time) with amount of rainfall in the preceding 24 hours. T indicates trace of rainfall. P C, partly cloudy. Rn., rain.

## Fruits and Vegetables.

Choices selected, in good packages, fetch an advance on quotations, while very poor grades sell less than the low quotations.

WEDNESDAY, June 3, 1891.

Bananas, Mex. ....	4 00 @ 5 00	box	1 25 @ 1 75
do California.	- @ -	do Royal do.	1 75 @ 2 00
do do sm'l bxs	- @ -	VEGETABLES.	
Lemons, box.	2 00 @ 3 50	Okra, dry, lb.....	20 @ 30
do Riverside.	1 00 @ 2 00	Peppers, dry, lb	1 25 @ 20
do Los Angeles	5 00 @ 7 00	do green	20 @ 22 1/2
do Sicily, bx., 5 50 @ 7 00		Turnips, ctl.....	75 @ -
Seedling Oranges*		Beets, sk.....	- @ 1 00
do Riverside..	2 00 @ 2 50	Cabbage, 100 lbs	40 @ 55
do Los Angeles	1 25 @ 1 75	Carrots, sk.....	50 @ -
Navel Oranges.		Garlic, lb Italian	1 @ -
do Riverside..	4 00 @ 4 75	do California	3 @ 6
do Los Angeles	2 25 @ 2 75	Asparagus, bx.	50 @ 1 00
do do scsly..	- @ -	do ex. choice	1 25 @ 1 75
do do Duane..	- @ -	Mushrooms,	
Pineapples, doz.	4 00 @ 5 00	Common, lb	15 @ 25
Strawberries, Chest.		Choice.....	25 @ 40
Choice to extra 10 00 @ 12 00		Celery, per doz.	40 @ 50
do fair to good. 3 50 @ 8 00		Cauliflower, doz	35 @ 50
Cherries, l'ght bx	35 @ 60	Tomatoes, box.	1 25 @ 1 50
do do dark	40 @ 75	S'm's Quash bx	1 25 @ 1 50
do Royal Anne	60 @ 80	do Bay	1 75 @ 2 00
Gooseberries....	2 @ 3	Cucumbers, doz	25 @ 50
do English....	5 @ 7	Rhubarb, bx.	1 00 @ 2 00
do O'gn impr'd	3 @ 4	Peas, in com sk	45 @ 75
Blackberries		do do sweet.	75 @ 1 25
drawer - @ -		String Beans, lb	5 @ 6
R'berries doz	60 @ 1 00	do do wax....	4 @ 5
Currauts, chest 4 00 @ 5 50		do Refugee....	6 @ 7
Apples, box....	50 @ 75		

\*In quoting oranges, regular sizes are given, viz., from 2 1/2 to 1 7/8 for Navels, and 126 to 226 for seedlings; all sizes cost 20c to \$1 1/2 box less.

\*In quoting oranges, regular sizes are given, viz. from 2 to 176 for Navel, and 126 to 226 for seedlings; odd sizes cents to \$1 per box less.

## Complimentary Samples.

Persons receiving this paper marked are requested to examine its contents, terms of subscription, and give it their own patronage, and as far as practicable aid in circulating the journal, and making its value more widely known to others, and extending its influence in the cause it faithfully serves. Subscription, paid in advance, 5 mos., \$1; 10 mos., \$2; 15 mos., \$3. Extra copies mailed for 10 cents, if ordered soon enough. If already a subscriber, please show the paper to others.

## Important to Farmers.

We have \$3,000,000 in sums of \$5000 up to loan on County Ranch Property below market rates. If you desire a loan or wish to renew one at lower rates, write us the rate of interest you are now paying and we will immediately advise what amount we can save you. MERCANTILE AGENCY & INVESTMENT CO., 16 Post St., S. F. Will E. Fisher, Pres.; Eugene G. Davis, Vice-Pres.; Wm S. Tevis, Treas.; Alfred D. Hall, Sec'y.

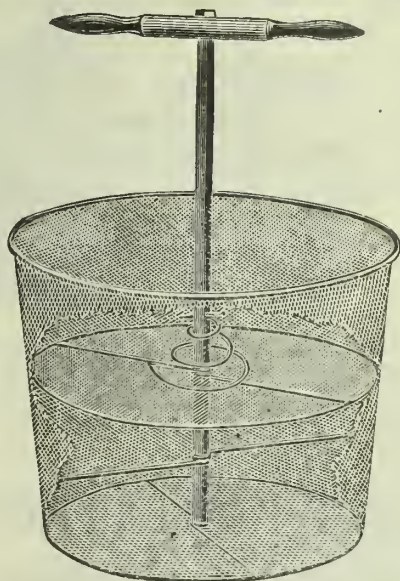
## ORCHARDIST.

AN EXPERIENCED ORCHARDIST AND GARDENER would like a situation as foreman of a fruit ranch. Temperate and steady habits. Can refer to former employers. Address ORCHARDIST, Box 2517, San Francisco, Cal.

## MANILLA ROOFING

FOR FAY'S WATER-PROOF Manilla Roofing, Siding, Ceiling, Sheathing, &c., send 2c for Illustrated Catalogues and Samples. J. F. WYMAN, General Agent for Pacific Coast, 304 Market St., San Francisco.

## TWO OF THE GREATEST AND BEST INVENTIONS OF THE AGE FOR DOMESTIC AND FAMILY USE.



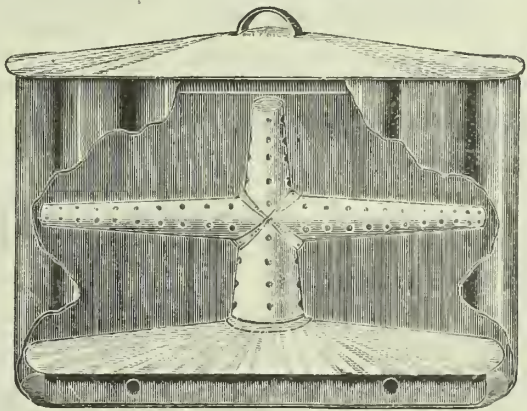
## THE BRYAN DISH WASHER.

A New and Novel Machine for Washing Dishes. This device washes and dries the dishes without putting the hands in water, or the use of wiping cloths. The work is quickly and easily done; even a child can do the work in less than half the ordinary time taken by dish washers. It is especially adapted for use in hotels, large boarding houses and families.

## DIRECTIONS.

Fill the tub with hot water so as to cover dishes, and put soap or perline in water as may be needed. Now put dishes in basket, lapping them so that water will pass between them, the small mixed with the large, cups, saucers, glassware, knives, forks, spoons, etc. Place wire spring cover down upon the dishes, put basket in tub and vibrate the basket right and left for two or three minutes; then take out the basket, empty the dirty water out; return basket to tub and after dashing hot water on the dishes and removing the basket from the tub, they will be dry in a few minutes.

## THE I-X-L CLOTHES WASHER.



A new and useful device invented and patented by a California lady. Marvelous in its simplicity and efficiency. It is not a machine, but a simple instrument of peculiar construction, embracing all the requirements necessary to do washing on scientific principles, without rubbing, and with less than one-half the labor employed by hand or by other devices heretofore placed upon the market. It will wash flannels without fulling or shrinkage. Does not wear the clothes, bleaches without the use of chemicals, and completes the task of washing in less than one-half the time and expense employed by other means.

## DIRECTIONS.

1—Very dirty clothes should be soaked over night. 2—Provide sufficient hot water to submerge the clothes twice. 3—Place your boiler over a hot fire with sufficient water to cover false bottom up to first holes in upright tube. 4—Cut up soap enough to wash a boiler full of clothes; put it under washer in bottom of boiler; and then put in the clothes; boil and steam 20 minutes, counting time from commencing of steam and foam flowing over top of clothes. 5—Take clothes from boiler and put them into first warm sudsing water; rinse out well; wring out into the next warm water; rinse, wring out, and hang out to dry. 6—Colored clothes in all respects the same, except 15 minutes instead of 20. 7—Woolen goods and blankets handle in all respects the same as white clothes, except using less soap, and with boiler filled with water up to cross-ripe. 8—Clothes must always be put into warm water when taken from boiler. HOT FIRE NECESSARY TO DO GOOD WORK.

Washers for Sale at Wholesale and Retail. Agents Wanted Everywhere. Territorial Rights for Sale.

S. B. PAIGE, General Manager, 321 Market St., San Francisco.

DEWEY & CO. { 220 MARKET ST., S. F. } PATENT AGENTS. Elevator, 12 Front.

## FOR BEST HAY PRESSES

[ALL STEEL PRESSES]



ADDRESS P. K. DEDERICK & CO.  
4 DEDERICK'S WORKS, ALBANY, N.Y.

## ANDERSON SPRINGS

— IS THE —

Most Delightful and Healthful Resort.

NOW IS THE TIME TO GO. BEST TIME FOR HUNTING AND FISHING.

HOT SULPHUR and IRON BATHS, NATURAL STEAM BATHS for the cure of Rheumatism, Paralysis, St. Vitus Dance, Dropsy, Catarrh, etc. STEAM BATHS and Cold Water cure Alcoholism. NATURAL POWDER from the Rocks cures Catarrh and Sore Throat. COLD SULPHUR, SODA, MAGNESIA and IRON SPRINGS for Dyspepsia, Stomach, Liver and Kidney affections. SOUR SPRINGS for Hemorrhage of the Lungs. BELLMEYER and CARO SPRINGS for Constipation.

Board, \$10 to \$14 per Week.

Strawberries in abundance, fresh from our own grounds, from May 1st. A large Swimming Pond will be completed early in June.

ROUTE FROM SAN FRANCISCO. — Take morning train to Calistoga, Napa Co., Cal. Take stage to Middletown, fare \$2.00, and private team to Anderson Springs, fare \$1.00. Fare to Anderson's from San Francisco, \$5.30. Express and P. O. Address: Middletown, Lake Co., Cal. J. ANDERSON, Proprietor.

## MATTHIAS GRAY CO.,

206 POST STREET, SAN FRANCISCO

## STEINWAY.

GABLER-PEASE

AND OTHER PIANOS

AND ORGANS



## PACKARD Organs.

Importer of American and Foreign

Band Instruments, Accordions, Violins, Guitars, Sheet Music, Books, Etc.

## DR. A. E. BUZARD,

## VETERINARY SURGEON,

Member of the Royal College of Veterinary Surgeons, London, England.

GRADUATED APRIL 22, 1870.

Advice by Mail, \$2.

OFFICE AND PHARMACY:

631 O'Farrell St., cor. Hyde, San Francisco.

Open Day and Night. Telephone No. 2094.



The only bit made that can be used on a gentle horse or the most vicious horse with equal and entire success. 20,000 sold in 1889. 75,000 sold in 1890. THEY ARE KING.

Sample mailed X.O. for \$1.00 Nickel \$1.50. Stallion Bits Fifty cents extra.

RACINE MALLEABLE IRON CO., RACINE, WIS.

J. T. Davis, Agt.

## Rare Chance for a Nurseryman!

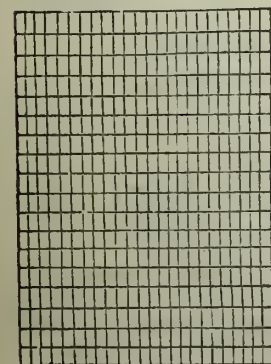
OFFERED FOR SALE ON EASY TERMS

## FIFTY ACRES OF CHOICE LAND

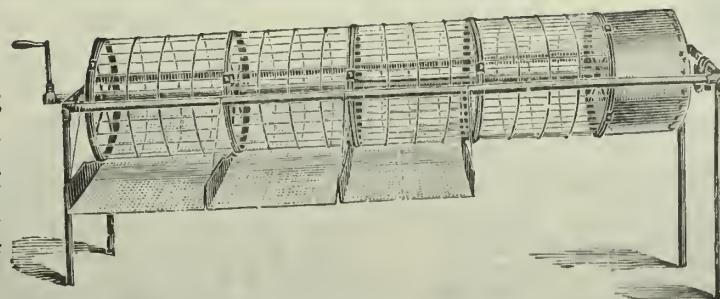
Adjoining the U.S. EXPERIMENTAL STATION, located 12 miles from Phoenix, Arizona, on the M. & P. R. R. Address W. E. JUDSON, Alessandro, San Bernardino County, Cal.

## SPECIAL POINTER TO FRUIT GROWERS!

## WIRE WORK OF ALL KINDS.



Window Guards, Wrought Iron Fencing, Bank, Store and Office Railing, Store and Window Fixtures, Ornamental Wire Work, Roof Cresting and Finials, Sieves, Riddles and Screens, Galvanized Dipping Baskets, and Prune Screens.



## THE CYLINDER GRADER

Has Proven the most Rapid Working Machine that has ever been introduced. Its capacity is practically unlimited, as it will grade the fruit as fast as it can be fed into the machine.

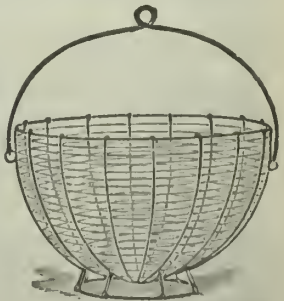
SEND FOR CIRCULARS AND PRICES.

D. D. WASS, 141-143 First Street, San Francisco.

## FOR GRADING ORANGES, PRUNES, OLIVES, WALNUTS, PICKLES, ETC.

Will Grade Green or Dried Fruit Equally Well.

TUSTIN, Sept. 17, 1890.—MR. D. D. WASS, San Francisco.—Dear Sir: The Grader arrived the 3d inst., and I had no trouble in putting it up and operating it. It worked like a charm, and I could easily grade five tons of fruit a day. I have finished and shipped my crop. I wish you would now explain the attachments or screens for grading oranges. If they grade oranges as nicely as prunes, I want them. Please describe them and state the price. Yours, etc., J. H. CREW.



DIPPING BASKET.

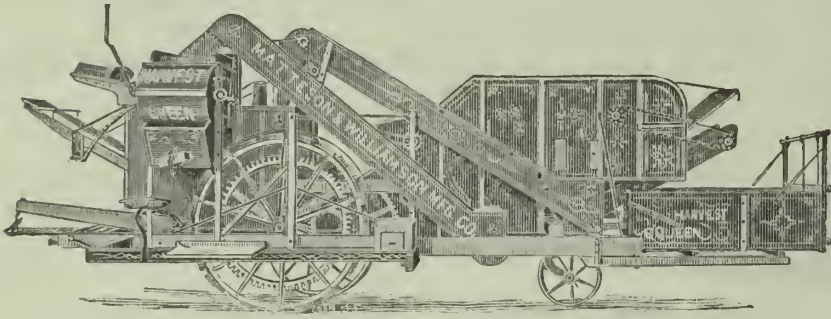
## THE JUDSON RABBIT-PROOF WIRE &amp; PICKET FENCE.

fence colored RED by boiling in a chemical solution that preserves the wood. Address JUDSON MANUFACTURING COMPANY, 14 and 16 Fremont Street, San Francisco.

CHEAPER and BETTER than Ever. Their 2-ft. high 8-cable fence has taken the trade. Farmers put barbed wire above it and have the CHEAPEST GOOD Fence that can be made in ANY WAY. Rabbits cannot get through. Hogs cannot break it and Horses or Cattle cannot get over it. All our



# The Harvest Queen COMBINED HARVESTER.



The Lightest Draft Harvester in the Market.

ENDORSED BY ALL FARMERS AND RANCHERS. SATISFACTION  
GUARANTEED. NONE EVER RETURNED.

## POINTS OF MERIT:

FIRST—Having two pivot wheels on the ground enables it to turn square corners like a mowing machine.  
SECOND—All of the frame work about the cylinder is the best of oak lined with sheet steel and put on with screws. Other parts built of the best of material and painted inside and out.  
THIRD—The driver is NOT isolated by a ladder from the machine, but is safely seated on the separator where he can hear and see the working of the machine and drive to suit.  
FOURTH—The new cleaner put on last season works perfectly.  
FIFTH—The machine is so geared that the cleaner, separator or header can be started independently of each other.  
SIXTH—The header is portable. By the use of our supplemental truck we can pass a 16-foot header through a 12-foot gate.  
SEVENTH—The shaftings are all made of steel.

SIZES, 10 TO 16 FEET.

Send for Price List.

With all our Machines we furnish Straw Dump and Header Truck separate from Machine. Machines delivered on board cars or boat.

The Matteson & Williamson Mfg. Co.,

MANUFACTURERS OF ALL KINDS OF AGRICULTURAL IMPLEMENTS,

Office and Works, - - - No. 370 Main Street, STOCKTON, CAL.

## TO SHIPPERS!

# California Ventilated Barrel

EXCELS ALL OTHERS!

IT IS LIGHTER, STRONGER, MORE DURABLE AND BETTER  
VENTILATED THAN ANY OTHER BARREL.

This engraving of the CALIFORNIA VENTILATED BARREL makes plain to the practical shipper its points of superiority over the common barrel, which may be enumerated as follows:

It weighs from five to seven pounds less than the ordinary barrel, making a material saving in freight charges.

It costs less than one-half for trimming, and does not require an experienced hand to cooper it.

It is Made of the Best Quality of Spruce, Woven Together with Copper Wire,  
And can be furnished in any size desired.



It is the only thoroughly ventilated barrel made, a very important point.

The heads are warranted not to come out in transit, and no liners are required.

It is stronger and more durable than any other barrel.

Never varies in size, even to the extent of a quart.

— ALTOGETHER MAKING IT —

The Cheapest and Best  
Barrel on the  
Market.

THE CALIFORNIA BARREL IS ADAPTED TO SHIPPING THE FOLLOWING ARTICLES:

Apples,  
Oranges,  
Onions,  
Potatoes,

Sweet Potatoes,  
Dried Meats,  
Bottled Goods,

Glassware,  
Canned Meats,  
Crockery,

Eggs,  
Poultry,  
Walnuts,  
Almonds,

And Vegetables of All Descriptions.

A factory making these barrels is now in operation in San Francisco, with a capacity of 4000 barrels a day. The success of the barrel is almost unprecedented, and it is bound to become the package in a very short time. EVERY ONE USING IT IS ENTHUSIASTIC IN ITS PRAISE. IT HASN'T A FAULT. When shipped in knock-down form, about 2500 barrels can be placed in a single car. Special rates given on car lots. WRITE FOR PRICES AND PARTICULARS.

California Ventilated Barrel Co.,

No. 403 MARKET STREET, - - - SAN FRANCISCO, CAL.

FACTORY: N. W. Cor. Powell and North Point Streets.

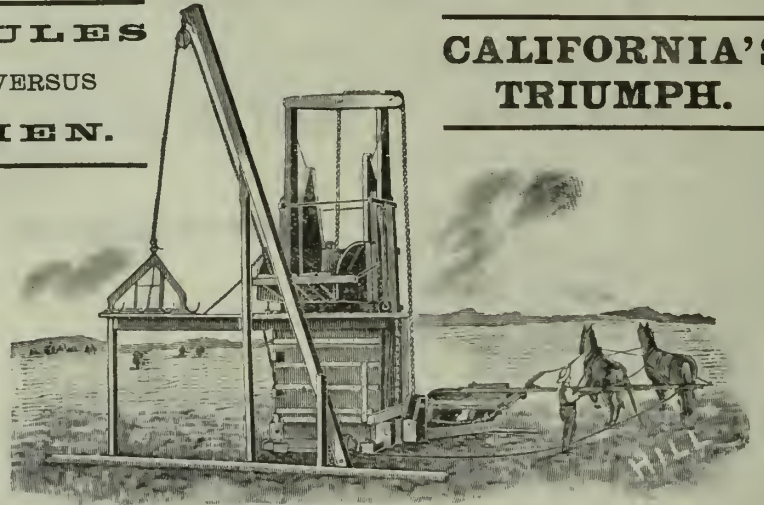
# HILL'S IMPROVED LIGHTNING BALER.

Capacity, 32 Tons per Day:

AWARDED FIRST PREMIUM BY THE CALIFORNIA STATE AGRICULTURAL  
SOCIETY FOR 1890.

MULES  
VERSUS  
MEN.

CALIFORNIA'S  
TRIUMPH.



No tramping No forking from the stack. No cutting of stacks necessary. You can sit at a hundred-foot stack and bale it without a move. It makes the best bale in the market. You can put ten tons in a car. The forking from the stack is all done by the horses. The Baler can turn out more hay in less time and better style than any other Press. Here is one of the recent endorsements of this wonderful machine:

J. F. HILL—Dear Sir: We baled on James Ryan's Ranch on the Cosumnes, one mile from the Slough House, 277 bales of alfalfa hay, that weighed 32 tons and 35 pounds, with one of your Lightning hay presses on the 21st day of July, 1890. Yours respectfully,  
CONNOR & ANDERSON.

— MANUFACTURED BY —

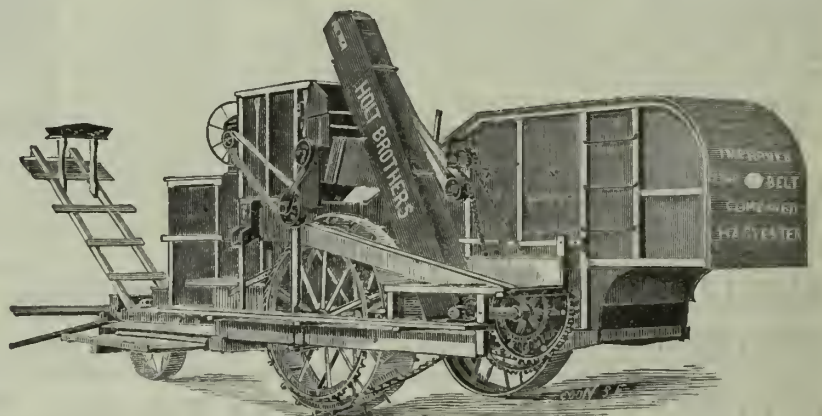
Pacific Wheel and Carriage Works

J. F. HILL, Proprietor,

Office and Factories, Nos. 1301 to 1323 J St., SACRAMENTO, CAL.

SEND FOR CIRCULARS.

# HOLT BROTHERS' Improved Combined Harvester.



For Efficiency, Durability, Light Draft and Fine Work it is Far Superior  
to any other Harvester of the Present Day.

Those contemplating buying are invited to visit our manufactory and see for themselves.  
Circulars and testimonials sent on application to

STOCKTON WHEEL CO.,  
Stockton, Cal.

or, HOLT BROTHERS,  
30 & 32 Main St., S. F.

# ENDLESS GANDY THRESHER BELTS. BEST IN THE WORLD.

FRENCH & LINFORTH, 35 Beale St., San Francisco,  
SOLE AGENTS PACIFIC COAST.



## GREAT REDUCTION!

IN ORDER TO CLOSE OUT OUR RETAIL CARRIAGE BUSINESS  
in San Francisco, we will sell our large stock on hand of first-class Carriages, Top  
Buggies, Phaetons, Four Spring Wagons, Carts and Harness at Cost. Now is the time if  
you want to buy a good carriage cheap. Salesrooms, 220 and 222 Mission St., San  
Francisco, Cal.

BRIGGS CARRIAGE CO., C. Greco Agent.

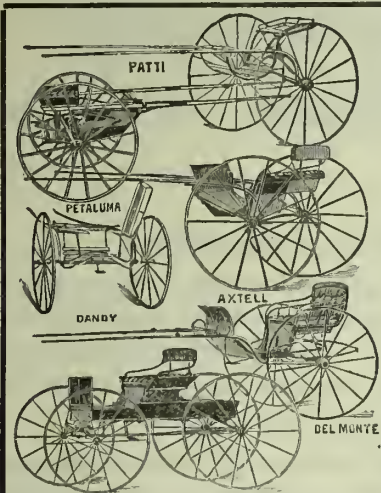
DEWEY & CO. { 220 MARKET ST., S. F. } PATENT AGENTS.  
Elevator, 12 Front



## Seeds, Plants, Etc. TO THE TRADE.

WRITE FOR PRICES OF THE SPLENDID SCARLET Cactus Dahlia "Juarez," White Cactus Dahlia "Constance," Double Dahlias, Yellow, and Red Canna Ehemani and Fontani; also, Best French Cannas. Plants grown by contract from the finest collection in the State. Send for Bulb and Seed Trade List. THEODOSIA B. SHEPHERD, Ventura, Cal.

**Thompson's**  
**SEEDLESS GRAPE ROOTS.**  
These Grapes make the finest seedless raisins known. For sale by J. P. ONSTOTT Yuba City, Cal.



Write us for prices and full particulars. Address  
**TRUMAN, HOOKER & CO.,**  
SAN FRANCISCO and FRESNO.

## "Neponset" Waterproof Paper.

**NEPONSET MILLS.**  
THESE PAPERS are all guaranteed to be absolutely waterproof, airtight and odorless. For sheathing and lining of buildings, for roofing of factories, storehouses and farm buildings. They are entirely unaffected by heat, cold, snow or rain.

"NEPONSET" SHEATHING (color black).  
NO. 1 "NEPONSET" ROPE ROOFING (color terracotta).  
NO. 2 "NEPONSET" ROPE ROOFING (color terra cotta).

These papers are in rolls 36 inches wide, and they contain either 250 or 500 square feet per roll, and weigh about 20 or 40 pounds per roll, respectively.

**DIMMICK & LOW, Agents,**  
221 Front Street, - - San Francisco, Cal.



## BROWNE'S Patent Squirrel Exterminator.

This is an apparatus for turning straw and sulphur and also forces the fumes down their holes which never fails to kill. I will give \$100 in case the exterminator does not kill (if properly applied) every ground squirrel that its deadly fumes comes in contact with. Thousands are in use. Price \$3.00. Send for circulars to

**F. E. BROWNE,**  
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## PROTECT YOUR TREES FROM SUNBURN, BORERS RABBITS, ETC.,

By Using the  
**Pacific Tree Protector.**  
Waterproof, Adjustable & Convenient.  
Saves Time, Trouble & Expense.

No. 1 Tanned Felt, Vermin and Waterproof, good for 3 yrs, 7x16, \$2.00 100.  
No. 2 Patent Insect-proof, Heavy, 7x16, \$1.50 per 100.  
No. 3 Patent Insect-proof, Light, 7x16, \$1 per 100.  
Special Sizes made to order. Orders promptly filled by

**THE PACIFIC ROLL PAPER CO.,**

30 and 32 First Street, San Francisco.  
Also headquarters for Fay's Patent Manila-Leather Roofing and Building Papers; Cheapest and Best in the Market. Send for Samples.

"DEAD LOCK" GOPHER TRAPS are best. Price 25c a piece or \$3 per doz., delivered. L. F. WHITE & SON, Pomona, Cal.

## E. C. CLOWES, STOCKTON NURSERIES.

500,000 ROOTED MUSCAT VINES  
Can be Delivered from Fresno or Stockton.  
Special Prices on Lots of 50,000 or more.

## White Adriatic and San Pedro Figs UMBRELLAS.

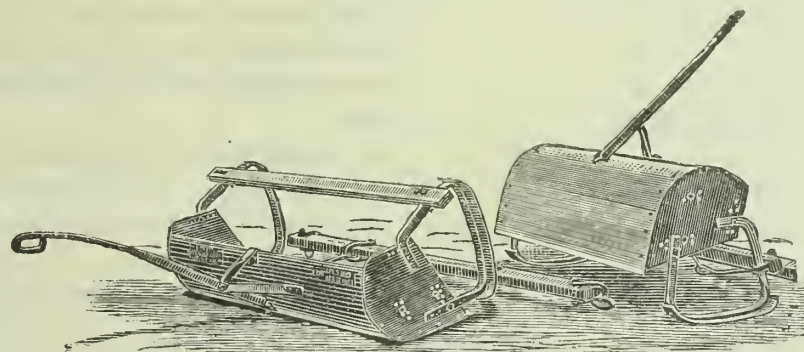
A Full Line of Fruit and Ornamental Trees, Shrubs, Vines, Palms, Roses & Small Fruits.  
ESTABLISHED 1858. WRITE FOR CATALOGUE AND PRICE LIST.  
Stockton. - - - - - California.

## ORANGE AND LEMON TREES.

NORTHERN GROWN.  
WASH. NAVEL AND MED. SWEET ORANGE. EUREKA AND LISBON LEMON.  
Free from Scale. We NEVER have had any pests at our nurseries. Prices from 50 cents up.

CALIFORNIA FAN PALM.—All sizes and prices from five cents up.  
ALOHA NURSERIES, - - - FRED. O. MILES, MANAGER,  
Penryn, Placer County, Cal.

## W. H. WOOD & CO., COMMISSION MERCHANTS, AND WHOLESALE DEALERS IN CALIFORNIA FRUITS AND PRODUCE. ALFALFA SEED 117 TO 125 J STREET, A SPECIALTY. SACRAMENTO, CAL.



## FRESNO CANAL, DITCHING AND LEVELING SCRAPERS.

FIREBAUGH, CAL. (Poso Farm), November 8, 1889.  
MR. JAS. PORTEOUS, Fresno, Cal.—DEAR SIR: In answer to yours of 6th inst., will say that I have found your new style four-horse Scraper the best all-round Scraper I have yet tried. Respectfully yours,  
J. W. SCHMITZ, Supt. Miller & Lux.

SEND FOR CATALOGUE AND PRICE LIST.

## FRESNO AGRICULTURAL WORKS FRESNO, CAL.

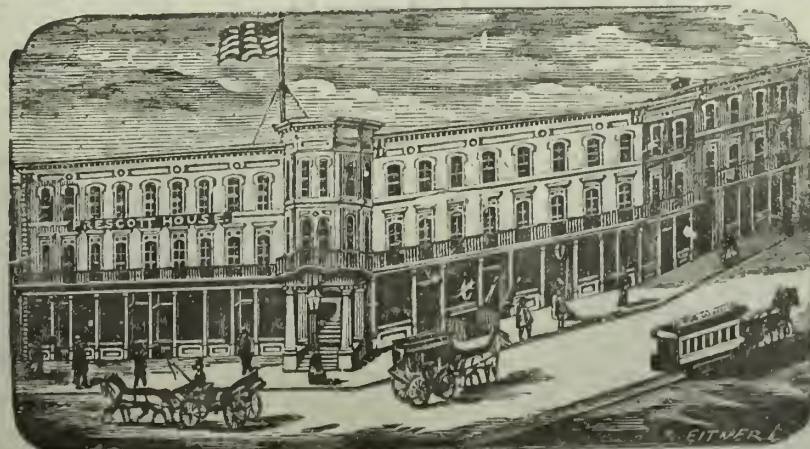
## SPECIAL! P. & B. Fruit Papers

(PATENTED.)  
ESPECIALLY ADAPTED FOR FRUIT DRYING.

No need of expensive wooden trays. No need of turning fruit. Costs much less than any other method.  
SAMPLES AND CIRCULARS FREE.

## PARAFFINE PAINT COMPANY, 116 BATTERY STREET, SAN FRANCISCO.

## PRESCOTT HOUSE.



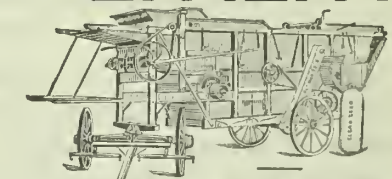
S. W. Corner Kearny and Montgomery Avenue, San Francisco.  
Free Coach to and from the House. J. W. BECKER, Proprietor.

45 sold in '88  
2,288 sold in '89  
6,268 sold in '90  
20,000 will be sold in '91

THESE FIGURES TELL THE STORY OF THE EVER-GROWING, EVER-GOING, EVERLASTING Steel AERMOTOR Where one goes others follow, and "WE TAKE THE COUNTRY"

This unprecedented success is due to:  
1st. To the fact that before commencing the manufacture, exhaustive scientific investigation and experiments were made by a skilled mechanical engineer, in which over 5,000 dynamometric tests were made on 61 different forms of wheels, propelled by artificial and therefore uniform wind, by which were settled definitely many questions relating to the proper speed of wheel, the best form, angle, curvature and amount of all surface the resistance of air to rotation, obstructions in the wheel, such as heavy wooden arms, obstructions before the wheel, as in the vaneless mill, and numerous other more abstruse, though not less important questions. These investigations provided that the power of the best wind wheels could be doubled, and the AERMOTOR daily demonstrates it has been done.  
2nd. To the liberal policy of the Aermotor Company, that guarantees its goods satisfactory or pays freight both ways, and 3rd. To the enormous output of its factory which has been a reduction of prices so that it furnishes the best article at less than the poorest is sold for.  
If you want a firm Fixed Tower made of Strong, Stiff Steel, and a Wheel that will cost you less than wood, and last 10 times as long—IF YOU WANT THE TOWER YOU DON'T HAVE TO CLIMB THE TOWER, and THE WHEEL that RUNS when all others STAND STILL, or if you want a wheel that will churn, grind, cut feed, pump water, turn grindstone & saw wood, i.e. A GRADED AERMOTOR THAT WILL DO THE WORK OF FOUR HORSES AT THE COST OF ONE (\$100) write for copiously illustrated printed matter, every conceivable phase of Windmill construction and work, to the AERMOTOR CO., Rockwell & Billmore Sts., Chicago, Ill., U. S. A., or Branch, 12 Main St., San Francisco, Cal., U. S. A.

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Has taken every first prize where exhibited this year. Twenty per cent cheaper than any other Separator. It is recommended by all commission houses. Hegler & Johnson, Wm. Hatton and J. Warren Dutton have adopted it this spring in preference to all rivals. I now have on hand the small-sized Sharple's Improved Separator. Second hand De Laval's, good as new, for sale cheap.

A. J. VAN DRAKE, Pacific Coast Agent,  
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ASK YOUR GROCER FOR IT.

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THE GRAND EXPOSITION BUILDING is filled with the beauties of nature, and the MECHANICAL DISPLAYS form a most interesting feature of the exhibition.

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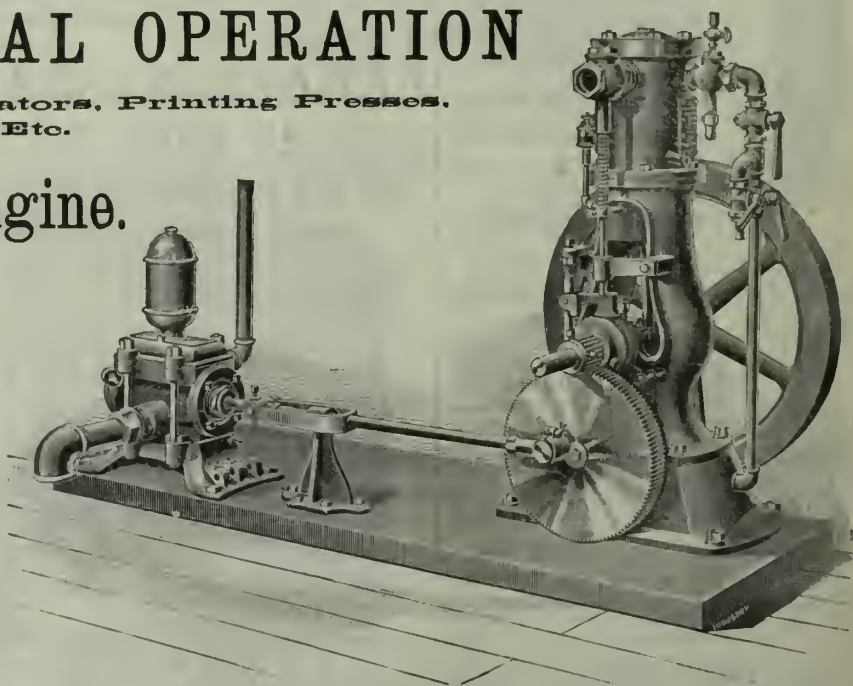
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# PACIFIC RURAL PRESS

Vol. XLI.—No. 24.

SAN FRANCISCO, SATURDAY, JUNE 13, 1891.

DEWEY & CO., Publishers,  
Office, 220 Market St.

## In the Southern Metropolis.

The growth of Southern California in wealth in population and in prosperous industries is a matter in which the whole State should take pride. Those who have allowed a few years to slip away since their last southern visit can have little idea of the changes which have taken place. Towns have grown in vacant places, cities have grown from towns, and the great city of the south has a municipal beauty, vigor and activity which the summer visitor of a decade ago could not recognize as the outcome from the town which he then saw droning in the southern sunshine. Our readers are, however, kept constantly informed of progress at the south, as in other parts of our great State, and they are warned to expect surprises—if the term is admissible.

Perhaps in no two buildings can the old and the new in Los Angeles be more sharply contrasted than in the courthouse of the old time and the grand building which is now rapidly approaching completion as the county's temple of justice. Our engraving shows the new courthouse, which occupies a commanding position in the city, and is visible from long distances in the valley. The style is Romanesque, with some new features introduced to suit modern days. The building is all fireproof, being constructed of brick, stone and iron. It is a most imposing pile of building, graceful in its lines, substantial in its proportions and thoroughly well constructed in all respects. The building was planned by Carlett & Eisen, architects of Los Angeles, who also planned the Los Angeles school. The contractor for the courthouse is O. E. Brady of San Francisco. Alonzo Bassett of Oakland has been the superintendent, under whose immediate eye the work has been done.

Aside from its creditable public buildings, of which Los Angeles has many devoted to different purposes, the city is notable for the beauty of its residences. Improvements of this kind have kept pace with the growth in population, and have served as the avenue for the sensible expenditure of the vast amounts of money realized from advances in land values or brought in by new-comers for home building in an incomparable climate. There are more pretentious residences than those shown on this page, and yet we doubt if many are more beautiful, at least in the horticultural environment. The grand California fan palms, which the engraving shows, are in themselves notable, and the well-kept lawn upon which they stand as kings of lesser examples of fine vegetation can hardly be improved upon; and when one thinks that such a view as the camera has caught of these homes is practically unchanged from end to end of the years, that summer and winter alike these gardens are green and beautiful, it is no wonder that to possess such homes people will fly from wintry climes, and devote their time and means to the upbuilding of California.



## The Sugar Bounty.

It is announced that there will be three applications filed before the end of June for the government bounty for home-grown sugar produced during the year ending June 30, 1892. According to the terms of the law, application must be made before July 1, 1891. The application must state the capital and amount of machinery employed and the acreage given to sugar beets. Thus far two such applications have been presented to Collector Quinn, by the Watsonville factory and the Alvarado factory, and have been sent on by him to Washington for approval. In addition, the factory at Chino expects to have its machinery in position and its plant in operation in time to send on an application.

The aggregate production of beet sugar by the first two factories for the year ending June 30, 1890, is stated to be 5,700,000 pounds. For the year ending June 30, 1891, the product will be 6,000,000 pounds. The first application of the bounty in this State will be to the beet sugar manufactured in the year ending June 30, 1892. An estimate of the amount which will be produced by the three factories mentioned is 25,000,000 pounds. So that the first bounty to be paid sugar producers in this State will be about \$500,000 in round numbers.

**FREIGHT RATES ON RAISINS.**—A committee of Fresno raisin-growers, consisting of T. C. White, Colonel William Forsythe and H. D. Colson, which visited this city last week, asked the railroad for a reduction of rates on that fruit to \$1.10 a hundred.



CALIFORNIA FAN PALMS IN LOS ANGELES DOORYARDS.



## THE FIELD.

## Summer-Fallowing.

[Read at Farmer's Institute Wasco, Oregon, by JOHN MEDLER.]

It has been said "that he who causes two spires of grass to grow where only one grew before is greater than he who conquers a city." Now if this great truth is applicable to the production of grass, how much more so is it not to the production of the cereals and vegetables. If a farmer can adopt a mode of farming that will increase the yield of crops to double the amount gained by the old way, how much more is he not enabled to add to his income, and consequently to the welfare of himself and family and to the country in general. We believe this happy result can be obtained in this great, so called, inland empire of ours by summer-fallowing if done intelligently.

When we notice the conditions that prevail in Eastern Oregon and Washington we find that we have a rich, deep alluvial soil, capable of absorbing and holding all the moisture that may fall, but there is a very deficient precipitation which probably amounts to 14 to 15 inches in Sherman county, which, of course, is not sufficient, with the excessive evaporation that we have, to insure good profitable crops annually, for it must be remembered that the late spring and summer months are destitute of rain or nearly so, and what little falls is evaporated with great rapidity.

The ground should be summer-fallowed not for the purpose of resting it according to an old antiquated idea, for the farmer might as well talk about resting his plow by putting it in the stable as to talk about resting his land, for it will produce good crops, and where climatic conditions are favorable two or three crops annually, provided you have a sufficient amount of moisture, and keep up the fertility of your soil by supplying it with the necessary plant-food.

But the idea of summer-fallowing is to store up the moisture of the preceding winter and spring and thus have the moisture of almost two seasons for your crops to draw from. The way to accomplish this is to plow your land as early in the spring as possible a good reasonable depth and harrow immediately after the plow, and cultivate during the season as much as may be necessary to prevent the growth of weeds. The effect is to retain the moisture already in the ground by preventing its evaporation, the fine, well pulverized surface acting as a mulch, and so it becomes possible in this semi-arid region to raise fine crops of the cereals because they have almost two years' rainfall to draw their supply of moisture from. Of course it is very evident that the earlier in the spring this work is done the more moisture will be retained, for the air becomes drier as the season advances and evaporation is much more rapid.

I claim that the above idea is the keynote to all successful farming in regions like ours where the soil is very deep and is composed of a large percentage of volcanic ash, and where the rainfall is deficient; for, where it is abundant, summer-fallowing, except for some special purpose such as the destruction of weeds, would be a sad waste of time. With it, however, if properly carried out, the yield in this region may be doubled and in some cases trebled, and the harvesting expenses, which constitute nearly a third of the whole, are but a little more than for an annual crop.

Now, while the most of the farmers in Eastern Oregon and Washington do summer-fallow their ground, it is somewhat strange that they do not seem to grasp the whole idea with all its consequences and carry it out to a logical conclusion. They summer-fallow for wheat, which of course is their main crop and is generally planted in the fall. Barley and oats are sown, and all kinds of vegetables planted, on land plowed in the spring and often with poor results; and it often happens that the yield of wheat is very fine while all else is a comparative failure. Now, why is this so? If the rainfall is not sufficient to grow an annual crop of wheat, and you have to resort to summer-fallowing in order to carry over the larger part of one year's rainfall into the next to secure moisture enough to assure a good crop of wheat, why will the same treatment not hold good for everything else whether sown in the fall or spring.

The whole idea is that of having enough of moisture for all plants, not one kind alone, that by summer-fallowing ground any one can raise double as large a crop of oats, barley or anything else.

Then why not extend the system to your gardens, potato patches, and truck patches in general? By taking a garden and summer-fallowing one-half one year and the other half the next there is only half the area to hand cultivate that there would be if it was all in. Then, if the yield be twice as great, as it surely will be if the moisture in the ground is doubled, or nearly so, which is the effect of a good summer-fallow, adopt this system for everything; in fact, if you only have one acre of ground, you ought to divide it and summer-fallow one-half one year and the other half the next. In carrying it out, it must be remembered that, in addition to sowing on summer-fallowed ground, to get the best results the seed should be put in the earth as early in the spring as

practicable before evaporation begins to rob the ground of its moisture, for a few days' delay in planting will make a marked difference in the germination as well as the growth of the seeds.

No doubt this system has added, and will add, thousands of acres to the cultivated area in the dry belt of this so-called Inland Empire, and by it it becomes possible for civilized man to exist in comfort and add largely to the development and prosperity of the country.

## A Great Hop Enterprise.

The Tacoma Ledger refers to the incorporation of the Puyallup Hop Co. with a capital of \$100,000.

The trustees who are to manage the concerns of the company until the first Monday in October, 1891, are E. Meeker, Fred S. Meeker, Louis R. Searles, W. H. Nichol and Roderick McDonald. The officers are: E. Meeker, Pres.; L. R. Searles of New York City, V. P.; Fred S. Meeker, Sec.; W. H. Nichol, Treas. The capital stock of \$100,000 is fully paid up.

The property is situated in the rich valley lands of White river, near the flourishing town of Kent, and lies adjacent to the line of railroad from Tacoma to Seattle, 16 miles distant from the latter city and 20 from the former. It is also 15 miles by rail from Puyallup, and between this latter place and Seattle.

The soil is rich, friable, alluvial valley land and practically inexhaustible.

A brief account of the rise, progress and present status of the hop industry of Washington will not be amiss in giving information to those seeking investments in the State of Washington, and particularly in this branch of the varied resources of the State.

The following article on hop culture, written for the State Board of Trade by the Hon. Ezra Meeker of Puyallup, and soon to be put into print by that responsible body, states the facts in as few words as can be said and yet gives the desired information.

"Twenty years ago, Jacob R. Meeker, then residing in the Puyallup valley (three miles distant from the spot where the present city of Puyallup stands) planted a peck of hop roots, and the same year harvested a bale of hops. These selling for 85 cents per pound attracted the attention of others and resulted in further planting—first in the Puyallup and afterward in the numerous rich alluvial valleys to be found in the rich Puget Sound basin. From this small beginning sprung this great interest that has brought into the State more than \$20,000,000, giving employment to fully 15,000 people annually and finally culminated in a crop of nearly 50,000 bales for the year just passed—the largest yet on record—in spite of the losses incurred. This remarkable result has been entirely due to the favorable conditions found to exist here for the development of this branch of agriculture. The deep, moist, friable rich soil; the cool nights coupled with our long days of sunlight; the certainty of our summer rainfall; the ease with which the loamy land can be cultivated; the constant continued growth unchecked by drouth or other causes all have contributed to make the yield large, the cost light and the quality choice.

"The average yield of hops in New York, or the hop districts of England or Germany is not more than 650 pounds per acre. The writer can testify to having harvested 168 tons off 170 acres and to having several well authenticated instances coming within his personal knowledge, where over 4000 pounds per acre have been harvested.

"The cost of producing hops in New York State is not less than 5 cents per pound; in England, at least an average of 18 cents, while in Washington, the average cost is less than 10 cents; hence, Washington hop farmers frequently sell at a profit, while others producing at higher cost are selling at a loss.

"The quality of the Washington hops is well attested by the growing favor with which they are received in the world's market. We have 'bearded' the English grower in his 'den' until he has cried quits upon several thousand acres, and finally the quotation of the Washington hops has moved up to the front rank and stands equal with the famous New York growth, so long at the head of the list, and forced many of the New York growers to reduce their acreage.

"The average yield of hop yards the world over is not more than 12 years. In the deep soil and mild climate in certain hop districts of Europe the hop yards never fail, some of them being now a century old.

"Similar conditions exist in Washington as to soil and climate, and the oldest yards, now a quarter of a century in bearing, show no signs of failure or diminution in yields.

"The future of this industry is difficult to foretell, but this much may with certainty be said, that we have the soil wherewith to produce ten times the present output, and we have assured the market and the people to harvest.

"No one connected with the early development of this business had the faintest conception of the proportion it was destined to assume, no more than they had of the wonderful development of the State at large that has followed in the wake of the expansion of trade incident to the wonderful and varied resources found here. We have seen the early hop yards of Puyallup covered with brick buildings; have seen the hops go out by train load after train load; the forests give way to cultivated fields;

the primitive roads turned into carriage drives; the railroad supplant the ox wagon. We are ready to believe almost anything of the future, judging from the past, and to look to a further expansion of this interest as our population increases and means of transit are multiplied and cheapened."

At this writing (May 20th, 1891), the crop is in the most flourishing condition. The vines will average more than as high as your head in many places, fully half way up the poles, growing strong and vigorous and free from vermin or any disease whatever. The prospects now are for as heavy a crop yield as has ever been harvested.

## FRUIT MARKETING.

## A Californian in the Eastern Fruit Regions.

EDITORS PRESS:—You wrote me if I found anything during my Eastern trip to interest the California fruit grower to let you know, so I will write you and you can be the judge.

I went to Washington and saw Prof. Van Daman, head of the Division of Pomology. He went with me to Dr. Smith of his department, who has been four years trying to find a remedy for the peach yellows. Dr. Smith and I left for the peninsula, which embraces the State of Delaware and part of Maryland, where some seven or eight million peach trees are growing, the largest peach region on the Atlantic Coast. The crop this year was very promising up to April 15th, and then a heavy rain set in on the 18th, when the trees were in full bloom. That destroyed a good part of the fruit buds; then, on May 6th, a heavy frost came and killed many more. I was told by competent judges that this year's crop would not exceed 900,000 baskets (30 pounds to a basket).

Dr. Smith showed me many of the experiments he is making to find out what the peach yellow is, and thus far he has found no remedy. His field for experiment extends all over this coast and includes Michigan, Georgia, and wherever peaches are grown. The yellows are taking the trees very fast. Not an orchard was visited but one could see 10 to 50 per cent of the trees dead or suffering from the yellows—trees planted from 3 to 10 years. The fruit-growers are discouraged and many orchards large enough to bear had wheat growing or some other crop to help out.

Dr. Smith tells me the yellows are in every section of this coast where peaches are grown in large quantities. If this disease continues to make its deadly havoc, in less than ten years the peach-raising will be known only in the past.

Almost every grocery store we stopped at in the peach belt had a sign up, "California Dried Peaches and Prunes."

The large cities lying near this peach belt will have hardly a taste of peaches grown on this peninsula. It is safe to say there will not be many peaches canned or dried from this region. It is also safe to say the peach crop of our State will bring an extra good price this year, notwithstanding the reports that we read before I came East of a large crop of fruit East.

The apple crop will be light this year. The Baldwin apple trees are not showing any signs of blooming. This cuts off two-thirds of the apple crop in Western New York. There have been very heavy frosts, so one cannot tell how much damage to the pear, plum and cherry crop will be, but enough is known to show one-half of the crop was killed by the frost.

The Eastern States will have to depend largely on California for their fruit supply again this year. The planting of orchard trees has been light for the past four or five years compared to former times, and it will be less in the future unless the climate and other conditions that now exist, change. J. T. BOGUE.

Batavia, N. Y., May 26.

## Handling Fruit for Shipment.

Mention has been made recently of the importance of thinning out peaches and other fruit trees which are likely to overbear. I am afraid growers generally do not fully comprehend the importance of this, and are disposed to sacrifice quality to quantity. In a great majority of orchards, fruits, especially peaches, will not grow to their full size nearer together than six inches on an average. This often necessitates the plucking off of twice or three times as much as is left upon the tree, and it requires no small amount of moral courage to do it, and yet it must be done if large and fine fruit is desired. A tree that is uniformly full all over should be mercilessly thinned down to five or six inches apart, at least; but in trees bearing less, or on which the fruit is not evenly distributed the fruit might be allowed to grow a little nearer. A glance at the whole tree will show at once what should be done. Even with a thorough knowledge of what a tree should bear, the most experienced grower will leave too much on the tree. This is proven by the fact that they often thin out a second and even third time, as the fruit increases in size.

We should bear in mind that quantity is but one consideration in the production of fruit. Quality is of much more importance, and quality properly includes size as well as appearance and flavor. In the market, large fruit

will always take precedence. Purchasers in selecting, choose by the eye instead of by the tongue, therefore, it is necessary to have the fruit as large and of as fine appearance as possible in order to command the highest prices.

And here comes in another consideration of the greatest importance to growers and shippers—the quality to pack and the manner of packing. Located as we are along the line of the overland railroad our market is naturally at the East. It is a long road to that market and an expensive one and it is the surest folly to ship any but first-class fruit to it, for that is the only fruit that will pay. And first-class fruit packed in a first-class manner will always pay. Second and third-class fruit is almost always shipped at a loss, and yet, in order to get rid of it is often mixed in with better fruit and sent out in the vain hope the good will sell the bad, when a glance at the poor fruit will cause it all to be rated as poor, and it will bring scarcely more than freight; and yet, under the present order of things, it will continue to be shipped year after year; to the manifest injury of the market and the fame of California fruit.

It would be an excellent plan, if it were possible, to have all fruit shipped East, packed at the fruit house from which it is shipped, and by experienced packers, under the eyes of the managers. Only by this plan, as things now stand, can fruit be put on the market in a first-class condition, because many lack the requisite knowledge and others are indifferent as to how it is packed so they get rid of their fruit. Poor fruit injures the market by making purchasers suspicious that the loaded California fruit is not what it is represented to be. What a reputation California might have with only her first-class fruit in market—as it should have—and what a tremendous demand there would be far and near. In addition to all this, it would induce and finally compel growers to produce only first-class fruit and thus be benefited in spite of themselves. All that would be required would be space for packing. Fruit could be brought in the bulk to the packing houses in padded boxes to avoid bruising. The fruit could be packed directly into the boxes in the orchards, and from the boxes in packing, thus saving one handling. The boxes should be duplicated, the empty ones to be taken back when the full ones were brought in. The cost of packing would not be great and might be less than when packed on the ranch. There are other considerations which lead to the putting of only first-class fruit on the market, one of which is the packing of fruit at the right time, when neither too green nor too ripe, which cannot be discussed now. Time will settle these questions.—A. P. Hall in Placer Republican

## Mr. Hatch Announces a Discovery.

A. T. Hatch, of the World's Fair Commission, in conversation with a Call reporter recently, let drop a piece of information which cannot but be of great interest to fruit-growers of the entire State:

"Experiments are now in progress in this city," he said, "which, if they prove as successful as they promise to do, will give the industry a boom such as it has never known. The great obstacle against which we have had to contend was the natural deterioration of fruit in transit, and this for a long time gave our Eastern competitors an advantage which kept us long in the background. Refrigerating cars were introduced and aided us vastly, but now a new discovery has been made, more important than any former one, so far as California fruit is concerned.

"A local chemist, who has been experimenting for a long time, has hit upon a gas which it is claimed will preserve fruit in its natural state for an indefinite period of time, at the same time preserving both the appearance and the flavor of the fruit just as it comes from the tree. A short time ago I was shown a sample of cherries that had been preserved in this way for six months, and they were in a perfect state of preservation in every way. Even an expert could not have detected that they were not fresh from the orchard. Other experiments are now in progress, and a number of fruit-growers, myself among the rest, have advanced money to carry them on. The gas is easy to manufacture, costs little or nothing, and no difficulty is experienced in handling it. Some little trouble was experienced at first, owing to the fact that the gas was prone to mingle with the air and thus dissipate, but that has been obviated now. It has been made so that it possesses a specific gravity just twice that of air, and the result is that it cannot mingle.

"If the experiments prove as successful as promised, the entire problem will be solved and fruit may be shipped around the Horn if necessary."

WHY THE EAGLE CAN LOOK STEADILY AT THE SUN.—The eagle is enabled to look at the sun by reason of a thin, semi-transparent veil, which can be instantaneously drawn over the front of the eyes. It is known as the nictitating (i. e., winking) membrane, and acts as a screen to shut out the too great intensity of light, so that with its assistance the eagle can confront the sun even at noonday. The membrane is so fine as not to obstruct the sight when drawn, like a curtain, across the pupil, and when not in use lies folded up in the inner corner of the eye.



## THE IRRIGATOR.

## How Much Water Is Needed?

"The question of irrigation" as presented by E. S. Babcock [RURAL PRESS May 23d] is one pertinent to the times. Who is qualified to answer it? Certainly not those with little or no experience.

Where has irrigation been practiced on the dry mesas back of San Diego (the real fruit lands) sufficient to determine? Who can tell in miles' inches, or by the gallon, how much water has been used or how much is needed? Who can tell how many dollars has been spent in applying water to a ten-acre grove through the nozzle of a hose, or from an inch faucet? Or how much to irrigate the same through furrows from a flume? Let us compare figures and see. We will start out with the proposition that one inch of water is necessary to irrigate a ten-acre grove of citrus trees. That will give the irrigator 30 inches of water for 24 hours each month.

A careful man can easily distribute and use that amount of water without waste through furrows already prepared. Thirty inches of water for 24 hours would be equal to a rainfall of 1.4 inches; but as it is settled into the soil from the bottom of furrows which are three to four feet apart, and much of the surface left dry, it would be equal in effect to perhaps three inches of rain. Thirty inches of water running 24 hours would discharge 390,000 gallons, or about 52,000 cubic feet, and with proper system, one man can easily apply it all in one day at an expense of \$2. We will say that interest on water-right and rental for one month has cost \$8, making total cost of water and labor of applying it for a month \$10, or \$1 per acre. Now let us suppose that, instead of using one inch to ten acres, we take Mr. Babcock's economical plan and use one inch to 60 acres, or five inches one day on ten acres each month. Reduced to gallons, this would give 65,000. To use in this way requires an elaborate system of pipes and hose with which to conduct into basins at the base of the trees. We will say nothing about the greatly added cost of forming such basins and keeping the whole grove in good till in such small squares, over the furrow system; and only compare cost of water and time of application. The hose for such irrigation will cost \$3 per acre per annum, as it is usually handled. In this way, a man can only use about one inch of water at a time, and, as it can only be applied in daytime, it would require 12 days of ten hours to distribute his monthly supply, at a cost of \$24, whereas by the other it is all turned on in one day, and the irrigator regulates the flow in the evening and lets it run all night. Add to this the cost of 65,000 gallons of water at 20 cents per 1000 gallons, and we have \$13 cost of water with \$3 for hose, making a total of \$40 for each monthly irrigation on the economical plan, as against \$10 on the wasteful plan, with six times as much water-economy that doesn't economize.

How many irrigators have stopped to figure up and see what an amount of water equal to one inch for one year would cost by the thousand gallons? Let us see how the comparison stands. An inch flowing for 24 hours is equal to 13,000 gallons. Calling it worth 20 cents per thousand gallons, as Mr. Babcock figures, would give \$2 per day, and 365 days would give, as an annual cost, \$949. Take for example the cost of water as furnished by the San Diego Flume, which many deem high, and it would cost rental \$60. Interest on investment at 10 per cent \$60, equals \$120 per year, as against \$949 by the gallon on the so-called economical plan, leaving a net saving of \$829 annually.

But how much water is necessary for ten acres? Mr. Babcock gives as illustrations Coronado Beach and Point Loma each enveloped in the humid atmosphere of the ocean. Also that of Dr. Cogswell of El Cajon. Why did he not refer to Major Chase's place where the water is running a constant stream through a ditch less than three feet deep and some of his orange trees have died from wet feet. It would have been as fair as the ones he gave.

The truth of the whole matter is that some of the poorest citrus land in the district around San Diego has been planted first because it was moist and others because it held moisture exceptionally well. The latter are all right. But the mistake is yet being made of planting lands which are wholly unfit for citrus fruits, and while many of these may make "exceptional" growth while young when they are large and should bear golden fruit they will bear disappointment. And to base calculations on the growth that young trees will make for a time on such lands as to the future of at least nine tenths of our best fruit lands would bring only disappointment and disaster.

Again the gallon system will only admit of watering in basins around the root of the trees. This is in effort to place the tree in a box, for when the roots reach the limit of the moist earth they will turn back, and the result is that only a small part of the land is occupied by the roots of the tree when every inch under proper management would be full of roots. After a few years such trees will get root bound the same as potted plants.

Again if the fruit grower takes Mr. Babcock's advice and brings water by the gallon, what assurance has he that when his trees are large

and must have more water or be worthless that he can get it?

No doubt it would be a very handsome thing for the water companies to sell at 20 cents or 10 cents or even 5 cents per 1000 gallons. Let us look at it a moment. Say a company has a pipe carrying 1000 inches of water at 20 cents per gallon, it would bring an annual rental of the enormous sum of \$949,000.00. If the system would carry 5000 inches it would bring an annual rental of \$4,745,000.00.

Does any one imagine a few thousand acres of land tributary to one water system can pay such an annual tax? And if a whole community cannot do it can the individual any better? Irrigators are advised to verify these figures and see for themselves the enormous difference in cost of water by the inch and by the gallon and not to be deceived and plant under false impressions.

It is well known that where alfalfa is raised successfully it must have water sufficient to cover the entire surface three to six inches deep once every 30 to 35 days. How much would that cost by the gallon?

And how would a man look standing on the corner of a ten-acre lot and shooting at it with a hose? It is also well known, and there are 1000 successful orange growers in Southern California, who will testify to the fact that one inch for ten acres is only sufficient where the conditions are all favorable, such as we believe to be the case in the bay region.—*The Great Southwest.*

## Legal Aspect of Irrigation Bonds.

Ex-Judge A. L. Rhodes furnishes the *Chronicle*, the following succinct review of a very important question:

It was generally agreed among those present at the meeting at the Merchant's Exchange on Tuesday last that persons desirous of purchasing irrigation bonds are required to satisfy themselves in respect to only three matters: First, that the district was organized in pursuance of the provisions of the Wright Act; second, that the bonds were issued in pursuance of the provisions of that Act; and third, that the lands of the district are of sufficient value to afford security for the bonds. It will be conceded by every one that if the bonds of a few of the districts be readily purchased by capitalists inquiry will be stimulated as to the quality of the bonds of the other districts. In respect to the larger number of the districts the only inquiry that is attended with much labor or expense is, whether the district was duly organized and the bonds duly issued.

In regard to these inquiries it ought to be stated, for it is not generally known, that some of the districts have had the proceedings for the organization of the districts and for the issue of their bonds confirmed by decrees of the court. The only question that the counsel for capitalists must solve in the cases of such districts is whether the decrees are in due form. If the decrees be found to be valid, then capitalists have only to ascertain whether the lands are adequate security for the bonds. Any competent expert can examine the lands, and his report would be accepted by the larger part of the capitalists in this city.

In 1889, the Confirmation Act, so called, which is supplementary to the Wright Act, was passed. The purpose of the Act is to require every person interested in the district to present to the court in which the confirmation proceedings are brought, all the objections he may have to the proceedings by which the district was organized, and the bonds were issued, and have those objections passed upon by the court once and for all, instead of allowing him to remain silent and reserve his objections until after the bonds are sold and have been in circulation for many years.

The confirmation decrees in the Modesto irrigation district case was recently affirmed by the Supreme Court. In the Poso irrigation district case, a land owner sought to enjoin the sale of the bonds, he relying upon almost all conceivable objections to the proceedings for the organization of the district and the issue of the bonds, and the district in answer to his complaint set up the decree of confirmation, and both the Superior and the Supreme Courts sustained the answer, and held that the confirmation decree was as conclusive as it was possible for a judgment to be, and that it absolutely precluded the plaintiff from setting up any of his objections.

It necessarily results from these decisions that the decree of confirmation places the proceedings for the organization of the district and for the issue of the bonds beyond the reach of attack by the district or a holder of real property therein. The only legal investigation that is required, where the district has procured a decree of confirmation, is to ascertain whether the confirmation proceedings were regular, and that investigation is no more difficult than in case of a decree of foreclosure of a mortgage.

If those proceedings be found to be regular the purchaser of the bonds of that district has only to ascertain whether the value of the lands constitute adequate security.

Three of the districts—the Modesto, Tulare and Poso—have valid and sufficient decrees of confirmation, and it is said that other districts have like decrees.

An assessment of \$5 to \$10 per acre will cover the principal of the bonds authorized to be issued by either of those districts, and the bonds ought to command a premium.

A. L. RHODES.  
San Francisco, May 27, 1891.

## POULTRY YARD.

## Poultry for Eggs.

The following are portions of an essay read at Worcester West District Grange by Robert R. Havener, Hubbardston, Mass.:

I am well aware that many agriculturists look upon the so-called hen farmer with a sort of contempt or pity. Without a thought as to the importance of the industry, let me quote from report of United States department of agriculture for the year 1889:

"The time has come when the importance of the poultry interests should be recognized in this department. The poultry products of the United States had a farm value of at least \$200,000,000 last year, and no less than 16,000,000 dozen eggs were imported at a first cost of over 15 cents per dozen, or nearly \$2,500,000, while the average annual value of such importation during the past four years has been \$2,216,326." Such being the facts, we can look forward with confidence to the future of the poultry business. We read in the "Book of books" that man was "given dominion over the fowls of the air," and all improvement which has been made is the work of man. To the fowl which laid perhaps 25 eggs, man said, lay 50 eggs, and straightway he made the necessary conditions and 50 eggs were laid. But man is never satisfied and has continued down through the ages to command the hen to lay more, consequently we have breeds to-day that will lay 250 eggs per year with proper treatment.

It would be sad indeed to spoil a good dairyman to make a poor preacher or poulterer. If you cannot take pleasure or comfort in your business or calling, you will never know success. If you can see no beauty in your poultry or in your pigs, you will never attain the best results with them. You must be in love with your business, then if you have a hen or a pig that does not thrive you will know it, and will look for the cause and will remedy it. Now every one that does not hate a hen can produce fall and winter eggs if he will make the necessary conditions.

1st. Secure good vigorous stock.  
2d. Do not try to keep too many in a family.

A pasture large enough for three cows would not be expected to pasture six.

3d. Do not feed wholly on corn or cornmeal. Feed in the morning something of this sort: Boiled potatoe, turnips or cabbage, clover rowen chopped into half inch lengths or shorter if you can, and scald, mix with shorts, a little cornmeal or buckwheat meal, ground oats or barley with a little ground meat and a pinch of salt. I would not advise a constant diet of any one mixture. But the greater the variety the better the result. Don't forget to keep your fowls at work; they must have exercise. Litter the floor with leaves or chopped straw or hay, and scatter a few oats, wheat, buckwheat or barley, and let them scratch for it. Feed small quantities at a time, but feed well. Do not keep large amounts of food by them that they can get without work. Idleness always breeds disease. Hang up a cabbage, turnip or beet where they can get it if they will only work for it; or a bundle of oats, barley or wheat—any thing to keep them at work. Don't forget to give good, clean water at least twice a day, and they will thank you for a little milk once in a while if you have it to spare; and don't forget to supply them with plenty of grit. This is very important if you keep a large number on a limited space. For grit give gravel, broken crockery, oyster or clam shells.

And another thing let me emphasize—avoid damp close quarters. And in the winter look out for cold draughts of air such as come from broken panes of glass or top ventilation.

I need not say much about cleanliness. You all know that it is necessary even with hogs, if you wish to attain the best results. The droppings should be removed from under the roosts at least three times per week. Every day is better.

And hens must have a place to dust themselves if you do not want to feed a lot of vermin. Dry sand, sifted coal ashes, with a little sulphur, will be excellent. Dry coal ashes for poultry houses I value very highly. Perhaps you will say the dust settles on everything about the houses. That is why I value it.

After your chicks are hatched feed them for growth. As soon as you can distinguish the males separate them from the pullets which should have as wide a range as possible. Feed very liberally not forgetting beef scraps, but avoid the so-called poultry invigorator or egg food. And if you do not want to do the work don't blame your hens because they do not lay. Instead of manufacturing our own eggs we send our grain abroad and then buy the eggs produced by the pauper hens of Canada and Europe. The poultry business in our country is yet in its infancy. We talk of artificial incubation as though it were something new when it has been practiced thousands of years by the Egyptians and destined soon to become a universal method in our country.

A good illustration of how the fibers of cotton will catch on to everything is shown in the machine shop when a nut is tapped on a little too small, or the adjustable die-plate left a little large. A piece of oop waste is wrapped around the tap, and once more made to find its way through the nut, with the result of making it more easy on the bolt.

## SHEEP AND WOOL.

## Meeting of the South Down Association.

EDITORS PRESS:—The annual meeting of the American Southdown Association was held on May 27, 1891, in the Illinois National Bank, Springfield, Ill., at 2:30 o'clock, P. M., President J. H. Potts, presiding.

The reports of officers show the association in good working order, and it was the expressed intention of the members to forward the interests of the Southdowns by every possible means. To this end the offering of liberal prizes at the World's Columbian Fair will probably be made.

The deaths among members since last meeting were: W. A. Wood, East Smithfield, Penn.; N. R. Boutelle, M. D.; Waterville, Me., and Phil M. Springer, Springfield, Ill.

Messrs. D. W. Smith, C. F. Mills and S. E. Prather were appointed a committee to present resolutions on the loss of these co-workers, and on account of the especial loss sustained by the association in the death of Phil M. Springer, the secretary was directed to set apart one page in volume IV of the Record in Memoriam for him.

Messrs. J. H. Potts, Jacksonville, Ill., T. W. Harvey, Chicago, Ill., and G. J. Hegerty, Hanover, Ohio, were re-elected members of the Board of Directors, and Frank K. Springer was elected to the Board to fill the unexpired term of Phil M. Springer, deceased.

Messrs. J. H. Potts as President, S. E. Prather as Secretary, and D. W. Smith as Treasurer, were re-elected for the ensuing year.

In accordance with previous action, the awarding of the following prizes offered by the association was approved: At the Detroit International Fair, Detroit, Mich., 1890, to John Jackson & Sons, Abingdon, Ont., Can., for pen of recorded Southdown ram and two ewes, a silver cup valued at \$30, and for recorded Southdown ram and ewe a silver medal each. At the Sangamon Fair, Springfield, Ill., 1890, to J. H. Potts & Son, Jacksonville, Ill., for pen of recorded Southdown ram and two ewes, a silver cup valued at \$30, and for recorded Southdown ewe a silver medal; and to S. E. Prather, Springfield, Ill., for recorded Southdown ram, a silver medal. At the American Fat-Stock Show, Chicago, Ill., 1890, to J. H. Potts & Son, for Southdown wether, sire and dam, recorded, a silver cup valued at \$50.

The Secretary placed before the association the correspondence had in regard to the registry of Southdown sheep owned in or imported from Great Britain. The matter was, after discussion, referred to a committee for further action, it being the disposition of the association to encourage the importation and registry of purely-bred animals for the improvement of American flocks, as opposed to the indiscriminate registry of animals having no other distinction in their favor than that they were bred in Great Britain. J. G. S.

Springfield, Ill.

## Artificially Colored Flowers.

At the last meeting of the California State Floral Society, Mr. Emory E. Smith read the following, which is replete with interest to all lovers of flowers:

Every now and then some one starts a story of having seen flowers of unusual colors, such as blue roses, red oalla lilies, green violets, etc. These seeming freaks are always a seven days' wonder to those who are not familiar with the method by which they are obtained. For many years it has been a well known fact that flowers when dipped in certain chemicals would rapidly change colors to such a degree as to be almost unrecognizable as the same variety. The public in general has known but little of the methods employed. M. Eppol, a distinguished savant, recently exhibited to the Scientific Association in Paris the results obtained by subjecting flowers to the influence of a mixture of sulphuric ether and ammonia. A quantity of ether is poured into a glass and to this is added a small quantity of liquid ammonia, say one-tenth of the volume.

The flowers are then plunged into the fluid and with the most surprising results. Those which are naturally red or violet in color, take upon themselves a bright green tint. Flowers, the colors of which are variegated, assume as many different shades; for instance, the upper petal of the sweet pea would become dark blue, while the lower petals would turn a bright green. White flowers usually assume a yellow color. Red geraniums turn blue, and red snapdragons become brown. Yellow is seemingly the only color which the solution does not affect. The action of the liquid is very rapid, and colored spots can be procured upon the flowers by pouring here and there a drop of the solution. Flowers which are many colored are sometimes changed to the most remarkable novelties that it would be possible to imagine. After the flowers have been subjected to the liquid, they should be plunged in pure water, when they will retain their new tints for several hours, but will gradually assume their natural colors.

The colnages at the San Francisco Mint for the month of May was as follows: Double eagles, \$880,000; standard dollars, \$850,000 dimes, \$46,075; total, \$1,776,075.



## PATRONS OF HUSBANDRY.

## Our Grange Edition.

The Grange news of most general interest is given through all editions of our paper on this page. Several supplemental pages, devoted to Grange interests, are added in our Grange edition, which any subscriber can receive in lieu of the regular edition WITHOUT EXTRA COST, by addressing the publishers.

## The Master's Desk.

E. W. DAVIS, W. M. S. G. OF CALIFORNIA.

From all sections of California comes the welcome tidings, "good crops." This means plenty of work for all the idle hands, which in turn, means money for the million. And as money makes the mare move, no doubt there will be a season of general hilarity and universal prosperity. It is a cause for congratulation that the idle are to have employment and compensation, that the granaries are to be filled, that larders are to be replenished with luscious fruits and toothsome meat and vegetables, and that a feeling of confidence among business men is to be, in part at least, restored. But while all this is pleasing, tis well to ask, what of the Grange? Are there signs of Grange growth, to keep pace with the general evidences of prosperity among farmers? Now kind reader, don't forget to help the Order. Let some of your prosperity find lodgment in the Grange. Help a good cause and help right away.

Independence Day is almost here. It ought to be properly observed by every true American citizen, no matter whether he is a native or a foreign born. What more appropriate work for the Grange than to take the lead in celebrating the Fourth of July? Who has more true patriotism than the farmer and his family? He it is who knows the true worth of that dearest of all earthly spots, home. What Order is more fully allied, and more appropriately so, to the principles of Independence, than the Grange? Every lesson of our Ritual teaches honest Independence. Therefore let the Subordinate Grange take the lead in celebrating the Fourth of July. Go to the Grange Hall, or better yet to the Grange Grove, and there, amid all that is pure and patriotic, turn loose the Bird of Freedom. Have the children join in the celebration. Give them something to do. And by all means let the Grange take the lead.

All efforts to get the Grange into partisan politics have failed, and properly so, too. The Grange is too big for any political party. It is big enough to control the affairs of each State, and, in a corrective way, it is going to do so. The Grange stands for all that is pure, progressive and elevating in each of the political organizations. It is for honest men, free government, an enlightened statesmanship, universal education and happy homes. It is for these and kindred things and not for partisan politics.

Have you ever studied the lorm, the beauty and the habits of the humming-bird? That little innocent has many lessons in store for you.

Read the newspaper and read it thoughtfully, but don't supply the old-fashioned, friendly, good-humored letter with the newspaper. Keep up the friendly correspondence!

Study the sub-Treasury scheme. It is a big, live question, and one which is sure to affect you and your property interests. Study this question for your own sake, for your neighbor's sake, and for the welfare of the country. Be like Davy Crockett before you act!

The common cutworm which infests our gardens and corn fields, doing much damage in a silent and effective way, must be almost kin to a class of people who know more about doing harm than good.

## Work of the Grangers' Bank.

We have seen some interesting correspondence between Mr. Albert Montpelier, Manager of the Grangers' Bank, and Mr. Herbert Myrick of Springfield, Mass., who is preparing a book on "How to Co-operate." Mr. Myrick asked first for a brief statement of the origin, early history, success and recent progress of the Grangers' Bank. Mr. Montpelier wrote an interesting statement of these facts, to which Mr. Myrick replied:

"Your experience will form a prominent feature in the department on co-operative banking in my practical manual for co-operators which will appear this fall. I can readily see the secret of the success of your institution—the best possible management, fidelity to the auspices under which it was inaugurated and strict integrity in conducting it." He also asks for much more information in detail, which Mr. Montpelier will furnish.

It is gratifying to see such frank acknowledgment of the work of a California institution—the only one of the kind we believe in the United States. To have a full showing of its history and methods prominently brought to the attention of the millions at the East must prove of much value to all concerned and to the public.

## The Grange and Its Teachings.

There is no one class organization among all the many that have grown up during the past 50 years, in which so many persons have been directly interested and about which so much has been said, and of which in many places so little has been really known and against which there has been so much prejudice existing as the Grange or P. of H., an organization of farmers.

After more than 20 years of existence, it still grows and prospers. It has outlived prejudice to some extent, yet there are some farmers who are opposed to it and are doing all they can against it. It has made itself known and felt, it has won the respect and confidence of a great many; and according to what some of the leading men of the Grange say, it is stronger and accomplishing more good now than at any other time in its history. Unlike all other organizations, the Grange confers its benefits not alone on its own members. Neither do farmers only reap its rewards. It extends beyond its own class and advances the interests of all.

The farmers are the bone and sinew of the land. When they are prosperous, we never hear of hard times; but if from any reason there are short crops, low prices, hard times, then it is that the manufacturers talk of over-production, merchants of dull trade, mechanics and laborers complain that they cannot get work. Individual happiness depends upon general prosperity. The soil is the source from which we derive all that constitutes wealth. Without wealth, we would have no agriculture, no manufacturers, no commerce.

Of all the gifts of the great Creator and Giver of all good, the various productions of the vegetable world are the first in importance. All history proves that where agriculture has prospered the nation has prospered.

The Grange seeks the greatest good to the greatest number, and so benefits manufacturers and commerce, as well as the farmer and his family. In common with all other steps of the world's history, the early days of the Grange were days of struggle, of opposition and of misrepresentation. Even farmers themselves sometimes opposed it. Mistakes were made in its earlier work. Its own members did not always understand it.

## What It Is and What It Is Doing.

In as few words as possible, we will tell what the object of the Grange is and what it is doing. It is teaching the farmer to protect himself. It teaches him that he has a mind as well as muscle, brains as well as land, and it pays him to cultivate one as well as the other. It teaches him how to be a better farmer, how to raise a crop and how to get better returns for his labor. It teaches him not only how to earn his money, but how to spend it to the best advantage. By organized effort and on business principles, he knows the cost of goods and the value of his products, and knows how to open up channels of trade so as to reach the best markets. Through organization, the farmer can deal with the wholesale grocers and get a reduction on his goods.

The Grange is making the farmer a better citizen, freeing him from the party lash and causing him to think and act for himself, and cast an intelligent ballot, causing him to vote for men that will favor the farmer without regard to party prejudice. It is doing this in all parties, and by so doing purifies and elevates them. It is securing for him better representation in Legislatures and in Congress, and getting laws more to the farmers' interest.

The Grange is making the farmer and his family more social, sociability being one of the features of the Order. It makes brighter and happier homes. It benefits its members morally, socially and financially. Temperance is supported, charity is a prominent characteristic. It makes the farmer better to his country and better to his God. None of its teachings has ever made man or woman worse, but its lessons all develop the good, the beautiful and the true.

The Grange is founded upon the great principles of truth and justice. It is the conservator of the farmers' rights, promoting the general interests of all people. It is destined to live on and on, keeping pace with the march of improvement. The half has not been told of its good works, and it can and will do more in the future.—Mrs. M. M. Deffenbaugh in *Am. Grange Bulletin*.

## Granges, Exchanges or Warehouses.

In some of the States at the East the Granges in from three to four counties organize a Grangers' exchange, or warehouse, through which all their feed, grain implements, groceries, etc., can be purchased, and also at the same time marketing all their produce. The Elmira, N. Y., *Husbandman* gives the plan of co-operation in the counties of Jefferson, Lewis, St. Lawrence and Oswego, from which we condense the following:

Each subordinate Grange has a director or sales agent, who takes all orders for goods, and forward them to the head office at Watertown from which place they are ordered in one bill and sent direct from the manufacturers or wholesalers to the Grange director, without going through the warehouse at Watertown, thus saving a big item in freights and handling. The business is conducted on the plan of the Rochdale system in England, thus avoiding any out-throat business which injures the merchant

or jobber, but simply gives him a little healthy competition by a stock company of farmers, incorporated under the State laws, and transacting an honest cash business for their own benefit. Each director or agent in the Grange does the business mostly upon orders but can carry a small stock of groceries or repairs for implements, as the Grange sees fit, so at each meeting, if there is some little trading a member wants to do while waiting for the goods to be ordered, he can do it. It can be seen if this organization can be made to work successfully, anywhere from 5 per cent to 40 per cent can be saved by purchasing direct from the wholesaler's or manufacturer's, thus saving all the middlemen's profits to the purchasers or the Grangers.

Then, too, by four counties working together, the purchase being so much larger, a much greater discount is obtained than could be gained on a small bill. The capital stock is enough to carry on the business on a cash basis. The stock is divided into shares of \$5 each, and every Granger holding a share is a member of the exchange and can purchase or sell through it as he chooses. All profits of the exchange, after the expenses are paid, are divided among the stockholders. All goods are sold at the ordinary retail prices and the profits accruing paid in cash dividends to the purchasers. Grangers who are not members trade at the exchange with equal privileges with members, except they are credited with only one-half the profits from their purchase. Thus outsiders are encouraged to deal with the exchange much to their advantage, and the stockholders as well. Most of the goods are sold when ordered, so no large stock is carried, which greatly facilitates a cash business and enables the exchange to work with less money than would be required to run a store carrying a large stock. The management of the organization is vested in the directors, one from each Grange taking stock in the four counties. These 80 men elect officers who have charge of the business and manage all the affairs of trade. The officers or managers are elected from each county and form a board of five or nine, as is thought best.

## Woman's Work in the Grange.

From the annual proceedings of the New Jersey State Grange we take the following able paper read by Eliza A. Rodgers, of Crosswick Grange:

After I was appointed to take a part in the woman's work in the Grange, I read that there was no restriction made in regard to the work they should engage in, in their efforts to build up and strengthen our Order. The work that I feel called to do is to strive to arouse the farmers from their lethargy, so that they will realize the fact that they are responsible that they and their families are in their present unjustly taxed, heavily burdened, impoverished and enslaved condition, and that the farmers are so fast drifting into a landlord and tenant system—for they have tamely submitted (with but few exceptions) to be dictated to in all things, even as to how and for whom their ballots should be cast.

The majority of the leaders in both of the old parties (many of whom were elected by the vote of the farmers) are controlled by the different monopolies, corporations, syndicates and trusts, who are using them in Congress and the different State Legislatures to procure legislation that will enable them to add a rich harvest annually to the millions that they have been given the power to legally rob the farmers and the other wealth producers of in the last 25 years. Equal rights for all, and special privileges for none, will no more apply to the conditions that now exist between those of our people who have been granted special legislation, and the farmers, than it would to the farmers in the most despotic government in Europe.

The farmers have created untold wealth, but class legislation has been obtained by a favored few that has given them the power to legally rob the farmers, and reduce the masses of them to their present indebted and unsatisfactory condition. My Brothers, you may rest assured that there will be no relief from the deplorable condition of the large class that you are here to represent, until they consider that the preservation of their homes and the comfort of their families are of more importance to them than partisan politics. Unity of action on the part of the farmers means their self-preservation. It is the duty of every farmer to make a common cause against every form of oppression that has made them the burden-bearers of this nation. For, if they ever expect to procure relief from the onerous burdens that class legislation now imposes upon them, they will have to lay aside partisan and sectional prejudice and resolve that henceforth they will not be influenced by the partisan press or dictated to by their party bosses—that they will throw off the shackles of party bondage, and stand together, and vote solidly and unitedly for true and tried men from their own ranks, who are in full sympathy with the farmers in their battle for their rights; instead of allowing themselves to be about equally divided between the two political parties as they have done in the past, and cast their ballots to elect men who were pledged, before they were nominated, to use all their influence to procure legislation that would give the men who have taken upon themselves to be their masters the power to compel the farmers to

pay such oppressive tribute, that, after they have paid the various taxes that are now levied upon them, there are many of them who do not have enough left of what they have produced to recompense themselves and their families for their labor.

## Past Master Overhiser Visits California Grange.

EDITORS PRESS:—After receiving a letter from the Master of California Grange, inviting me to attend their meeting to-day, and a letter from Bro. Loucks urging me to do so, I concluded to make an effort to meet with the California Grange.

I left Stockton yesterday on the 6:45 train and arrived here last evening. This morning Bro. A. Smith called to see if I had arrived, and finding that I was on hand, he left only to return with his fine buggy team to take me to Planeshurg in time for the meeting at 10 A. M. On arriving there, I was informed, to its credit, that no liquor is sold. We soon met the Worthy Master, who welcomed us as no one but a true Patron can. We soon repaired to the hall, where we found the members were assembling, and where many a warm shake of the hand and Patron grip were tendered your humble servant. The Master's gavel fell about 11 A. M., and we soon got to work. A class of 14 was put through the third and fourth degrees, after which a hounteous feast was partaken. After the feast we again met for business when much good work was done in the interest of the Grange. The trade-card system was explained. The Master of Merced Grange was present and told us that he had done some trading through the trade card, and was well satisfied with the results. I think you will soon hear from California Grange in that direction.

I told the members of the exertions the Executive Committee is putting forth in their interest which they seemed to appreciate—the Master so expressed himself.

During the recess, one new application was received. I was informed that quite a large class was about to start on its way to the Master's desk.

Before the Grange closed, I distributed several copies of the PRESS to members who are not subscribers. I trust the seed sown will take root and produce a good crop of subscribers.

The time having arrived to close the Grange, the Master, in a short, pithy speech, thanked the Executive Committee of the State Grange for the interest taken in the Order in sending them a Deputy to instruct them in the work and explain the trade-card system. The Grange was then closed, and the Grangers' grip was exchanged by the members, and a hearty goodbye, with kind invitations to come again. Yours fraternally, WM. L. OVERHISER.

Merced, June 6 1891.

## A Prophecy of Lincoln.

Unpolished and uncouth as he sometimes was, President Lincoln was not only a man of a kindly heart, but also a politician of much shrewdness. There is no doubt that his sympathies were fully with the common people of the country—the class, indeed, to which he belonged in private life—and that if he were living now he would be the sturdy opponent of the trusts and gambling commercial methods of the time. The following is published as a prediction of his, made shortly before his deplorable death:

"I see in the near future a crisis arising which unnerves me and causes me to tremble for the safety of my country. As a result of the war corporations have been enthroned, and an era of corruption in high places will follow, and the money power of the country will endeavor to prolong its reign by working upon the prejudices of the people until all the wealth is aggregated in a few hands and the republic is destroyed. I feel at this time more anxiety for the safety of my country than ever before, even in the midst of war. God grant that my fears are groundless."

Inspiration could hardly have more truthfully foretold the present condition of the country and the evils which threaten it. The great fortunes that have been accumulated and the influence acquired by the money power in both our politics and business, undoubtedly had their source in the late war. Its jobs and its derangement of values afforded speculators an opportunity to enrich themselves at the expense of both the government and the people, and they improved it to the utmost. They are now too strong, financially, for the government to check, and for the ordinary laws of commerce to control.

Mr. Lincoln's fears for the safety of the republic, on account of the influence of the money power over its politics, would be quickened by present conditions if he were alive. The "era of corruption in high places" has been reached, and the great political evil is the influence of money in our elections. It has sent a number of millionaires to the United States senate, and a presidential election now without a great campaign fund, would be an anomaly in our political contests.

An uprising of the people, like that of last year, may apply the brakes and arrest the progress of the country toward the abyss described by Lincoln, but it will be a struggle that will severely test the integrity and patriotism of the people.—*Atlanta Journal*.



## FARMERS' ALLIANCE.

## Alliance Edition.

Subscribers can receive our FARMERS' ALLIANCE EDITOR WITHOUT EXTRA COST, by applying for the same. That edition contains several supplemental pages of Alliance matter, in addition to that which appears on this page through all editions.

## How the Money Goes.

OFFICE OF THE STATE SECRETARY,  
GILROY, CAL., June 8, 1891.

EDITORS PRESS:—I have had several letters lately asking what becomes of the money sent up from the Sub Alliances to the State Alliance, and intimating that the State was absorbing an undue proportion of the funds. Of course, these inquiries do not come from parties who read the Alliance news in the RURAL, for the supplement of May 2d contained a financial statement showing the amounts collected and disbursed, and who received them—the largest amount paid to one person or firm being \$451.00 to Hurlbert Bros. for printing. More than one-half of the material represented by this sum is now in this office.

The \$547.52 paid out by the Secretary was paid for postage and express, office rent, rituals and literature for distribution, for every dollar of which value received was returned to the Order. There is but one salaried office at present in the State Alliance and that gets the paltry sum of \$600 per year, and certainly the most economical member in the State would not take the position for a less sum. The Executive Committee have been allowed only actual expenses while in attendance on the two quarterly sessions now past; while our honored President has given most of his time to the work since the State Alliance was organized, and paid the entire expense of his office amounting to several hundred dollars from his private funds, and surely our economical brother could effect no saving in that quarter. Still some may think that the State officers are having an every day picnic. To all such I will simply say: Have a little patience; there will be an annual election in October, and you will then have a chance to try your hand. Until that time, let us all try to practice the motto of the Order: "In things essential unity and in all things charity." Fraternally Yours,  
C. W. PEDLAR.

## The Farmers' Loan Scheme.

The daily press of our State has severely criticised the idea of "Government" making loans to "farmers." Corporations are individuals in the eyes of the law. Government has loaned money and is loaning money to these legal individuals. It has practically loaned \$70,000,000 to the "Whisky Ring" for three years; no interest. It has loaned \$64,000,000 to the Pacific railroads; no interest. It has paid accrued interest on Pacific railroad bonds to the amount of \$50,000,000; no interest. It has loaned National Banks two to three hundred million dollars at an interest not to exceed one per cent per annum. These banks have sub-loaned these millions to "farmers" and manufacturers at an extortionate rate of interest. Now, if our law-makers have discovered a constitutional right to loan money as above, where, in the Constitution, do they find a clause or section which permits them to discriminate, in the matter of money-lending, against the "farmers"? Newspaper comments cannot give them that right, nor can press opinions prevent the "farmers" as a class from making this inquiry: "Where do they find a constitutional right or precedent to discriminate against citizens engaged in 'farming,' and in favor of citizens engaged in building railroads, or citizens engaged in banking, or citizens engaged in distilling whisky?" It is self-evident that they have made such discrimination; and "farmers" are merely asking: "Where do you find authority to discriminate against us?" And echo answers, "Where?" JUSTICE.

THE sentiment America for Americans is growing and intensifies under discussion. The latest outbreak of this feeling was witnessed at Baltimore, where a semi-secret meeting was held, at which stirring speeches were made in favor of keeping America for Americans. The efforts of the people of other nationalities to overthrow the Government and institutions of the United States, such as the doings of the Mafia, anarchists, socialists, etc., were commented on as examples of what may happen if immediate steps are not taken to prevent complications which are inevitable when men of different nations attempt to govern the affairs of State.

AN ALLIANCE GRADUATE.—Last Friday evening the graduating exercises of the class of 1891 of the Stanislaus Seminary and Normal School, situated at Oakdale, took place. The essays and orations by the graduates were remarkably good. We may mention the one by Guy Laughlin on "Mortgages the Bane of Social Wealth," which was read in a very clear manner and showed a turn of thought in the right direction. We remarked to Guy that he should join the Farmers' Alliance. The principal, Prof. J. M. McKenzie, is Lecturer of Oakdale Alliance.—HUGH BAKER, Oakdale, June 6, 1891.

## Farmers Rattling the Old Dry Bones.

The New York Herald with its usual enterprise, has a staff correspondent visiting various States in the Union to probe the farmers' movement. The last published letter of that paper's correspondent from Des Moines, Iowa, contains many pertinent points from which we excerpt the following:

One thing that worries the leaders of the old Alliance is the rapid growth of the new organization of the Farmers' Alliance and Industrial Union. It is depleting the ranks of the older order somewhat, and what worries them still more is that it forms a strong and compact organization which they cannot control, and which promises to direct its energies in an organized movement against the G. O. P. Further than this, the party leaders are seeking a coalition with the old Alliance organization, and are begging that body to name the candidate for Governor, which they profess themselves ready and willing to indorse. The only aspect of interest to the country in which these leaders here present themselves, is that in which they stand as vicarious confessors for their party. They virtually insist that the evils which have roused the farmers, are capable of a political remedy; that their cure must be sought in politics. This is an admission that their cause is political and must be sought in the policies and the legislation of the party with which these leaders have willingly acted all their lives. More than that, these same policies are still the declared purpose of that party. It has in no wise abated them, and in no particular has it given signs of a change. The agricultural industries are the most permanent, and by nature the most profitable of a country so varied in its capacities of soil and climate. Our productive processes have been refined by labor-aiding machinery. We have turned the soil with gang ploughs for wheat, while the European farmer has been using a spade. We have planted with a drill while he has been sowing by hand and covering with a garden rake. We have been outting and threshing at one operation, with a single machine, while he has reaped with a sickle and thrashed with a flail. In this way we have nullified the cheapness of his labor by the superior productive power of ours, and in spite of all obstacles have sustained the profit of our production. The Western farmer understands that the trouble is that this profit has been, by the connivance of the G. O. P., legislated away from the men who earned it, for the benefit of classes whose contribution in campaigns kept their party in power, for the return of legal favors that power could bestow. The Western farmer finds now that he has been taxed out of his profits to enable the Eastern manufacturer to sell the tools of agriculture cheaper to his European competitor than to him. He finds that to the cheaper labor of the Old World, his forced enrichment of the American manufacturer has now added cheaper machinery than he can buy, and the spade, hand rake, sickle and flail, are now obsolete for American machinery, cheapened to the foreign buyer by taking part of its price out of the American farmer. This system has driven the American farmer into the last ditch, where his struggles are now so appalling to the political party, which has so long been active in producing them.

## Fighting Against Mortgage Foreclosure.

The Farmers' Alliance and Industrial Union movement in the West, is chiefly significant for its recognition of a political cause for the distress of which it is the outcry. Until very recently the farmer could be hardened to his condition by passionate appeals to his patriotism. Florid declamation about the Civil War and prophecies that it must be fought over, controlled his vote, for he did not see, through the fuliginous political atmosphere, the coldly selfish motive of sectionalism. Kansas is a fine example of both phases of the issue. In 1888 Mr. Calloway carefully gathered the statistics of rural debt and production, and published a statement of the farm mortgages in each county, and the relation of their sum to the aggregate of farm production and profits. The showing was appalling. But it was met by a political party with a storm of indignation. The very farmers who were carrying ten per cent mortgages on one per cent farms, and buying corn because they could not exchange it for coal dug by the starving miners of Pennsylvania, were induced to burn and hang Mr. Calloway in effigy all over Kansas, and with the most wonderful exhibition of obedience to party leaders ever shown in this country, were persuaded to roll up the greatest G. O. P. majority given by any State. Then came reaction. In the very next session of the Legislature attempts were made, severally, to extend the maturity of farm mortgages, to lower their rate of interest, and to extend the equity of redemption under foreclosure. As each of these methods proved to be repugnant to the federal constitution, which forbids such impairment of a contract, the farmers in more than a third of the counties of Kansas to-day stand embattled and defiant of the sheriff who attempts to sell a farm on mortgage foreclosure. When a local paper criticizes their attitude, they sack the office.

Now, it is useless for any one to say that American farmers do any of these things wantonly and without cause. The old party politicians are busy trying to turn these aroused

energies of desperation aside in chase of rain-bows, to be dissipated upon vagaries and chimeras. But the farmers of Iowa are wise enough to insist upon relief of their financial situation, and the beginning of that relief is in lightening the taxation that has heretofore drained their resources to support industries not naturally profitable. This is why the farmers' movement in Iowa this year is likely to help rather than hurt the Democratic party. The campaign of education has been under way here for years, and the debate will go on until the issue is fully understood. Necessity has opened her old-fashioned school, but the pupils therein are no longer fools. They are becoming wise in their day and generation, and evidence of this is found in their persistent rejection of the Republican Party and the men responsible for the political cause for which they now seek to unite to secure a political remedy.

## Alliance County Notes.

## Butte.

The usual bi monthly meeting of the local branch of the Farmers' Alliance, took place Monday evening, June 1, at the school house. Our Alliance is in a flourishing condition, and all who join it frankly say that it is just what the agriculturist as well as the working man needs. Its constitution is founded on good, substantial everyday doctrine, and is perfectly calculated to meet the wants of the above-mentioned classes. By joining it, an individual must not labor under the false impression that it will affect his politics or religion. It is just the reverse, for by entering into the spirit of the organization, one improves his condition to such an extent that he is better enabled to form opinions on these two factors in his everyday life. The Alliance advocates temperance, and its aim among other things is the abolishment of the saloon power. Women as well as men are admitted to its benefit, and their joining should be encouraged. Two new members joined Monday evening, which now makes a total of fifteen, every one of whom should do all in their power to encourage others to join, so as to make Palermo Alliance second to none in numbers, as it now is in enthusiasm.—Progress.

The convention of the County Alliance of Butte county, consisting of delegates from the various Sub Alliances throughout the county, will be held in Odd Fellows Hall Biggs, beginning at 10 o'clock A. M., Tuesday July 7th. There will be a secret meeting during the day, and a public meeting at night. J. W. Blues, State Organizer will be present and address the people. The ratio of representation is fixed as follows: Two delegates for each charter, one additional delegate for each ten members, and one for a majority fractional part of ten. A general invitation is extended to the public to attend the open meeting.—Biggs Argus.

## Humboldt.

The Table Bluff Alliance will hold an open meeting on the evening of June 13th, to which all are invited. They hope to have a speaker present who can explain the designs and workings of the Order, and would be glad to have a large attendance of all who feel an interest in the movement.—Western Watchman.

## Nevada.

EDITORS PRESS.—I will hold a meeting for the formation of the Co. Alliance at Rough and Ready on Monday, June 8, and the next day will leave for Stockton. I now have five Subs. established, and will speak at Chicago Park tonight, and here to-morrow night. I expect to organize in both places. I have been under the weather. Will write particulars later on. Fraternally. BURDETTE CORNELL.—Grass Valley, June 5.

## San Diego.

The Valley Center Alliance No. 6, on last Saturday, was very interesting and entertaining. Mr. Wm. Balise and wife and Mr. R. Breedlove were initiated and on the previous evening, Mr. J. Borden and wife joined the ranks, which gives us over 30 members. It is decided that we shall hold an open meeting on Friday evening, June 12th, to discuss the Alliance platform. It was also decided that the Alliance has nothing whatever to do with the tariff question, and that speakers shall be held strictly to the platform.—Escondido Times.

## San Luis Obispo.

The Alliance met May 30, but few male members were present. Mr. McFaddin of San Miguel was present on some business relating to the Alliance flourishing mill to be erected at his town.—Adelaide Cor. Messenger.

Chas. Smith, of Las Tablas Alliance, and daughters are visiting the editor. Bro. Smith reports the Alliance work as moving finely in his county. We are looking forward to the County Alliance to be held at Exline Grove on the 7th of July. A good deal of preparation will be necessary. Would it not be well for the leading members of the Alliance to make such suggestions as they may think useful, through the newspapers?—Garden City Alliance

## Santa Clara.

Lincoln Alliance No. 6, will give a grand entertainment at Cupertino on June 12th.

The Farmers Alliance is going to make quite a stir here. Mr. Pedlar, State Secretary, states they are very soon going to erect a large flouring mill. The papers of incorporation were made out this afternoon, and things look very businesslike. A delegation is in town to-day looking up a suitable site for the building;

the old cannery property will probably be selected. It is also hinted, and on good authority, that they will erect a box factory and will control the proposed electric light plant.—Gilroy Cor. Mercury.

The County Sub-Alliances are all in a flourishing condition. The attendance at the weekly meetings are good, and the interest and harmony in the work is most satisfactory. Our County Organizer should form an Alliance at Mt. View and Evergreen. The times are propitious and the work should be pushed.—Garden City Alliance.

## Sonoma.

Bro. J. Roberts of Santa Rosa called last Wednesday and reports Santa Rosa Alliance on the boom. New applications are coming in, and at nearly every meeting Initiations are the order. The Fourth will be celebrated at Sebastopol to which all Alliances and friends are invited. The details and general arrangements will be under the supervision of the Sonoma Co. Alliance.

## Stanislaus.

State Organizer T. P. Cook writes: On June 6th I organized Rising Sun Alliance. P. O., Vernalis, Stanislaus Co. It has 14 members. The following officers were elected: L. M. Larson, P.; F. M. Cowell, V. P.; Miss Laura Cowell, Sec'y; Henry Beck, Treas.; Mrs. L. M. Larson, Chap.; Miss Gracie Cowell, Lecturer; Miss Lenora Sperry, Steward; Mrs. F. A. Cowell, A. D. C.; John Jones, D. K. All solid citizens.

## More Alliances in Nevada Co.

There were published in the Tidings recently the names of the officers of the Sub. Alliances established by Organizer Burdette Cornell, at Indian Springs and Pleasant valley. Mr. Cornell was in town lately, and in the course of conversation stated that he organized a Sub. Alliance at the Union schoolhouse, under the name of "The Lone Valley Alliance." The new subordinate is the largest established in the county, having 20 charter members. Its officers are: Pres., S. A. Winn; Vice-Pres., Mrs. C. A. Odell; Sec'y, Miss Evaline Barnes; Treas., E. B. Odell; Chap., Henry Nichole; Lecturer, D. J. Lynch; Doorkeeper, I. N. Hite; Ass't Doorkeeper, Merrill Odell; Steward, Miss Hattie Winn. The organization of Lone Valley Alliance is mainly due to the efforts of Miss Hattie Winn, who made a thorough canvass of the neighborhood.

The officers of the Rough and Ready subordinate are: Pres., F. E. Gross; Vice-Pres., S. E. Weeks; Sec'y, Miss Hattie Martel; Treas., Mrs. S. J. Miller; Chap., E. W. Weeks; Lecturer, E. E. Black; Doorkeeper, A. P. Martel; Ass't Doorkeeper, S. C. Hanley; Steward, A. J. Miller. This Alliance starts out with 16 members.

A fifth county subordinate will be organized at Pleasant Ridge.

Mr. Cornell is a young man, hailing from Nebraska. He is a fluent talker and very energetic.—Grass Valley Tidings.

## The Good Work Going on Bravely.

A press telegram dated Washington, June 7, states that President Polk of the National F. A. & I. U., and Congressman Jerry Simpson left for La Crosse, Wis., to attend the convention of the different industrial organizations of that State to be held for the purpose of uniting with the National Alliance as one working body. After the organization of the Alliance is completed, they will make several speeches in the State and then proceed to Illinois, Indiana, Ohio, Pennsylvania, New Jersey and New York, where mass-meetings are arranged by Alliance leaders to discuss the principles of the order. President Polk has arranged through the State Alliance Presidents to have mass-meetings at several points in each of the forty States during the next four months. He will have 100 speakers at work throughout the entire Union educating, as he says, the masses to the Alliance cause before the meeting of the fifty-second Congress. By the time the National Convention meets in November, he thinks the Alliance will be fully posted as to what strength it will have as a Presidential and Congressional factor in 1892.

COMMENDABLE FEATURE.—One of the most commendable features of the Farmers' Alliance, is their rule that differences arising between Alliance men shall, if possible, be settled within the Alliance of which they are members. In each Sub. Alliance five men are carefully selected to whom are to be submitted differences arising between the members. They are, in fact, a sort of jury. If either party interested objects to one of the five, or more, then others may be selected, until the jury is satisfactory, and it is expected that their decision will be regarded as final. And why should not the result be as just and equitable as if recourse had been had to the courts? Judges and juries are but human, after all, and are likely to err as other mortals. Besides, the Alliance jury is not liable to become befuddled by technicalities, but will decide entirely on the merits of the case. The system is regarded with great favor by Alliance men, among whom it has settled many difficulties that would otherwise have given rise to much expensive litigation.—Bakersfield Californian.





## Kinship.

If you have a friend worth loving,  
Love him. Yes, and let him know  
That you love him, ere life's evening  
Tinge his brow with sunset glow.  
Why should good words never be said  
Of a friend—till he is dead?

If you hear a song that thrills you  
Sung by any child of song,  
Praise it. Do not let the singer  
Wait deserved praises long,  
Why should one who thrills your heart  
Lack the joy you may impart?

If you hear a prayer that moves you  
By its humble, pleading tone,  
Join it. Do not let the seeker  
Bow before his God alone,  
Why should not your brother share  
The strength of "two or three" in prayer?

If you see the hot tears falling  
From a brother's weeping eyes,  
Share them, and by kindly sharing  
Own your kinship with the skies.  
Why should anyone be glad  
When his brother's heart is sad?

If a silvery laugh goes rippling  
Through the sunshine on his face,  
Share it. 'Tis the wise man's saying,  
For both grief and joy a place.  
There's health and goodness in the mirth  
In which an honest laugh has birth.

If your work is made more easy  
By a friendly, helping hand,  
Sav' so. Speak out bravely, truly,  
Ere the darkness veil the land,  
Should a brother workman dear  
Falter for a word of cheer?

Scatter thus your germs of kindness,  
All enriching as you go;  
Leave them. Trust the Harvest Giver,  
Who will make each germ to grow.  
So, until the happy end,  
Your life will never lack a friend.

—D. W. Hoyt.

## Emma Marwedel.

(Written for the RURAL PRESS by MRS. E. L. CAMPBELL.)

In the first quarter of this century, in a quaint old city on the North Sea, a little German child, three years old, listened to her mother telling the story of Ose who died by crucifixion that he might thus save millions of people. She was an infant of extraordinary beauty; bright-balred, fair, with wide open violet eyes and a precocious sympathy. She crept into the dark hall, and standing close against the wall, stretched out her little arms and imagined them nailed to the cross; she tried to realize the thorns and nails piercing brow and feet, and asked herself if she would be willing to suffer thus for other people.

This child was Emma Marwedel, and while she has not suffered martyrdom, she has willingly made her whole life a sacrifice for her ideas, and has counted the world's ease and honors well lost if she could set in the right path the feet of such little children, as she then was.

This year, in America, where the crowning days of her life are passing, and where so much of her work has been done, there is an eager demand for a fuller story of her life. The teachers she has trained, the children she has loved and taught, the educators she has inspired, all alike wish to know somewhat of her ancestry and environment, of her first creative impulses and achievements. These data she promises to furnish soon, but meanwhile it is with somewhat of difficulty that the following record of successive steps has been obtained. Her family,—an old bureaucratic family of Hanover,—always employed about the Court, or serving as officers in the army, lived in Menden when she was born. Both parents were unusually gifted, and the father, an army officer, gave her as a child an exceptional education.

Her mother died before Emma was 11, and the property which should have been inherited by the children from the mother's side was lost through a negligent guardian, and the little ones, with Emma as head, were thrown largely on their own resources. What miracles of successful enterprise she accomplished, through a heroism as rare in those days as it is frequent in these, will probably never be published; but all was the preparatory development—was the generating of power, for what she has since done in the service of education.

The first public recognition of her abilities took place in Leipzig in 1864, when she was elected to serve on the Board of a society called "The Association for the Promotion of the Education of the People." She and her colleague, Miss Anguste Smith, were thus the first women ever elected in Germany to act with a board of men on educational

al matters. Professor Biederman was at that time the president of the board and still retains the office.

In 1865 the first German Association for the Advancement of Women was formed, and Miss Marwedel was made a member of its executive board.

About this time Herr Schultz-Dalltech was strenuously active in endeavoring to ameliorate the lamentable condition of the laboring men of his country, and Miss Marwedel entreated him to include in his efforts the equally oppressed laboring women.

He in turn challenged her to take this work in her own hand and carry it to success.

Every one who there and then had a scheme to push for the good of humanity, or a reform to inaugurate in any educational direction, seems to have perceived the value of this eager, ardent, capable woman, fertile in ideas, practical in organization, resolute and intrepid, as only those can be who are at the same time intelligent and self-assured.

The Baroness Marenholz Bulow advised her to leave all else and devote herself to educational reform work through the kindergartens.

But at this time Miss Marwedel felt the burden laid on her of helping young women to prepare themselves for the many kinds of work by which, all unprepared, they were struggling to support themselves. Eighteen months she gave to the study of this problem, travelling in France, Belgium, England and Sweden, investigating institutions, studying methods, and comparing plans, and finally responding to an urgent call from Hamburg, and establishing there, in 1867, the very first Industrial Art School for Women ever known in Germany. She became Principal of this school, and remained with it a year, only leaving it when it was an assured success. (The school now numbers 400 pupils and has a thorough equipment.)

Miss Marwedel then put forth a brochure on Industrial Education for Women, the result of which was that Berlin and Breslau offered her inducements to establish similar schools in their midst. But a more irresistible call had reached her from this side of the Atlantic.

Miss Elizabeth Peabody had made her acquaintance while visiting the Industrial School in Hamburg, and perceiving the close and logical connection between the principles of Froebel as a foundation, and the Industrial Art Training School as a superstructure, interchanged ideas with her on how best to attain the wider dissemination of these principles of educational reform.

She came to America the next year, was welcomed with acclaim by the most advanced minds of Boston and Cambridge, and as in Europe, so in this country she is seen everywhere she went carrying an illumined torch and setting aflame other torches hitherto waiting for the contagious spark. It is this power of influencing to action the minds of those already prepared for a higher development that strikes the present writer as one of her most noteworthy characteristics.

Growing herself, always growing, always seeing some higher level of truth than the one she has just attained, she is the best illustration of her own idea of education as a germinating process in opposition to the old method of imparting knowledge. If she has gone from place to place instead of stopping and focalizing the forces in some one place, that has perhaps made her the greater benefactress.

Prodigal of ideas as the sun of warmth and light, she has left in every place where she passed a burning center of enthusiasm and enlightenment, and has done immense work which history will never record.

Still yearning over the unfriendly state of the struggling women everywhere, and observing that men in similar conditions were being actively looked after by politicians, one of the first things done by Miss Marwedel after coming to America was to call attention to the great tracts of uncultivated lands (in the Eastern States alone) which would lend themselves to horticultural purposes in the hands of women trained for such work.

She published articles on this subject, and as a first result was invited by the president of the Boston Horticultural Society to present her plans before that institution. Out of this grew America's first Horticultural School for women, located at Newton, Mass.

At this time, Miss Marwedel was offered most lucrative and honorable positions as a teacher in New England and New York, but this work she felt would limit her power in Educational Reform, and must therefore be refused.

Her pamphlet on "Industrial Training" having been translated by a professor at Cornell, President Andrew White of that University, invited Miss Marwedel to discuss with him a plan of connecting a Horticultural Department for women with Cornell University. Mr. Cornell offered land and buildings, and the City of Ithaca wished to donate \$2000. This is mentioned as one example of the enthusiasm excited wherever Miss Marwedel carried her plans for practical work, and actual "knowing by doing."

The climate was found unsuitable at Cornell, and after receiving a host of offers of land and money from many different States, she finally decided on Brentwood, Long Island as a proper location for a self supporting Horticultural School.

Much good work was done there, and the practicability of the scheme fully demonstrated.

The next step was the opening of an Industrial School for girls in Washington, D. C., in which

work, a phenomenal success was achieved. Then came the ideal Kindergarten and Training School in Washington—an effort participated in and watched over by Senators Garfield, Blaine, Sherman, Blair, Sprague and many others of our cleverest public leaders, whose children were her pupils. Next followed the call to the Pacific Coast and the establishment of the training school at Los Angeles. From this school have gone out some of our most brilliant California kindergartners—one of them Mrs. Kate Smith Wiggin, the head of the Pacific Training School to-day, and Miss Anna Stovall, principal of the Golden Gate Training School.

Not content with this alone, Miss Marwedel opened in Los Angeles an evening industrial school also, where, assisted by the voluntary services of 14 professional experts, she caused to be instructed 70 eager pupils in languages, needle work, wood-carving, modelling and drawing—all free of charge.

Thence she came north, founding schools in Oakland, Berkeley and San Francisco, and organizing Froebel Educational Societies. The writer ventures to say that no finer example of the genuine kindergarten has ever been seen than that one in its own beautiful grounds, at the corner of Van Ness avenue and Sacramento street, in San Francisco, where, for so many years, the very genius of the new education presided. The lovely garden was there (one of nine gardens, which Miss Marwedel has laid out with her own hands since coming to America), the walls of the schoolrooms were lined with exquisite pictures of plants and animals, and with cabinets of mineralogy and embryology, and everywhere was most lavish provision for the unfolding of the young intelligence.

Tiny children sprouted seeds on moist cotton-wool, examined the germs with microscopes, observed with minute attention and either reported orally, or if they could write, kept a journal of their observations. It was about this time that Miss Marwedel found herself taking the measurements of her own progress since she first received the thought of the endless meanings of the sphere.

Froebel had seen it as the type of unity—she saw it as the type of life. Every living thing from the lowliest protozoan, through all organized forms up to the gray matter of a Newton's brain—and on, to the whirling planets of the solar system, was observed to be the ever-recurring eternally persisting circle. She realized that some more permanent record of her development of those principles must be made than was being accomplished in her daily teaching.

She began to write. Simultaneously with the production of her Conscious Motherhood she carried on the preparation of the Circular Drawing System, which had already in a less developed form attracted much attention from leading educators assembled at Madelon, Chicago and elsewhere in convention. This now gradually expanded into an ideal elementary Botany, the circle reappearing in continuously higher forms of life, and the color sense being cultivated at the same time by reproduction of the natural lines of all objects. The illustrations of this book consist of one hundred exquisite plates, and the text is a "fairy tale of sciences" held to technical accuracy by the oversight of Professor Eugene Hilgard of the California State University, who also writes the preface. In 1888 Miss Marwedel went East to attend to the publication of her works. Conscious Motherhood was placed in the hands of the publisher, and she proceeded to Europe with the double purpose of perfecting the Botany, and of causing to be manufactured the various implements and materials invented by herself, and tested by their successful use in her own school. A later and fuller biography must follow her through her three years of fruitful journeying through England, Belgium, Switzerland, Austria and Germany, visiting and studying kindergartens and manual labor schools and taking counsel with the most illustrious representatives of the new education.

Since returning to America, a sad accident has befallen Miss Marwedel—a fall down stairs while in Boston having greatly injured her, and as a consequence retarded her work.

The Botany is not yet in the market, but will not be much longer delayed, and meantime she has written and published still another book, called the "Connecting Link" which is distributed at her request, by the Bureau of Education at Washington.

At the present writing Miss Marwedel is once more in San Francisco, with the most flattering prospect of a general adoption of her ideas and methods in educational reform.

Three of the public schools of Oakland and the kindergartens of San Francisco are to introduce into the regular course after having tested different portions of her system and notably of the wooden color-forms and the advanced paper-cutting (representing life-processes in nature as in the circular drawing) which are especially designed to form the link between the kindergarten work and that of the primary and manual labor schools.

In most States of the Union, and in most of the centres of education in the old world, there are earnest men and women who join in a common aspiration that Emma Marwedel's life may be spared to see her ideal realized here in California where, if anywhere in the world, the ideal conditions are present for the development of a school in which pupils shall "be prepared for life by living."

A HORSE may pull with all his might but never with his mane.

## The Almanac.

Now, Hanner, 'tain't no use to tell what them newspapers say  
About the storms and winds and floods that's comin' right away,  
The cold waves that they harp about that's brewin' in the West,  
An' movin' East 'bout just so fast. I hain't no confidence  
In anything of that ere kind; it's the newfangled way  
Of running things as if the Lord He wouldn't hev' His say  
About the weather any more. I ain't so tarnal green,  
As 't' be tuk in by weather that's ground out of a machine!  
An' I look where I'll find it straight, for snow an' rain an' hail,  
In the good old Almanac that hangs there on the nail.

Them Probabilities don't count; I want to know for sure  
An' sartin, when the winter'll come, the real Simon Pure!  
The kind of weather that we had so plenty in my day,  
When sleighin' in November came, an' sometimes held till May!  
In them times, Hanner, b'izzards wuz a thing we didn't know;  
A snow storm wuz a snow storm, and a high wind wuz a b'ow,  
An' when it cleared away we didn't harrer up our souls  
A-worryin' about the storm that wuz hatchin' at the poles;  
An' when we wanted weather news 'bout which there was no fail,  
We looked in the old Almanac that hung there on the nail.

We trusted some to signs you know, as how the wild geese flew  
A goin' South, an' how the husks upon the field corn grew,  
An' how the beavers build their dams, whether they's high or low,  
An' if the breast-bone of a goose wuz white, look out for snow;  
But when my mother wanted for to set a broody hen  
She'd have to have the signs all right for a good hatch; an' when  
My father wanted to find out if there'd be a rainy May,  
So's he could raise his calves, an' know he'd have a crop of hay—  
Why, then they looked where weather calculations did not fail,  
In the old Almanac that hung there on the nail.

So, Hanner, 'tain't no use to try to beat it into me,  
That them "forecasts" in the newspapers that every day we see,  
Is of any sort of consequence; why, there hain't no kind of doubt  
But what a man that undertakes to plan the weather out  
Must know the heavenly bodies, an' conjunctions, just as I  
Know all my cows an' horses, an' pigs that's in the sty!  
He can't trust to them thermometers with figgers sot by rule,  
Like the sums upon the blackboard when I went to destrict school.  
An' when I want to know about the rain, an' snow, an' hail,  
I'll look in the old Almanac than hangs there on the nail.

—Clara Augusta in New England Magazine.

## Chaff.

ETHEL—Of course, papa, I want to marry him, but you'll have to give me up, poor dear, won't you? Papa—Well, my dear, that's true; but then we'll get rid of your young man too, you see.

DID you recognise your wife at the masquerade last night? Not until I patted her on the shoulder, and she whispered to me, "Lemust, dunt make a fool of yourself, you old donkey."

"A fool for luck!" exclaimed Bangs, when he heard that a friend had married a rich woman. "I don't know about that," replied his wife; "you don't seem to be especially fortunate."

THE newspapers are forever speaking of "the blushing bride." Well, when you reflect upon the kind of husband not a few of the brides marry, you cannot wonder that they should blush.

"How pleasant it is to see husband and wife of one mind." "It is indeed. There's the Robinsons, for example. She thinks there's nobody in the world like Robinson, and he thinks so, too."

"WHY didn't you write oftener in answer to my letters, Jack?" she asked tearfully. "Because, dearest," he remarked, "yours were so long and interesting that I spent all my time reading them."

A WOMAN'S Reason.—Clara—Jack intends to have everything his own way when we are married. Clara's Mamma—Then why do you marry him? Clara—To relieve his mind of a false impression.

DID you get your bro-a-bras home from the cottage all right? Yes—with a marked increase too. My wife packed six pieces in a barrel, and when they got to the house there were 30 pieces.

JAY—"Well, by Jove, Jones, how are you? How you have changed!" Stranger—"But my name isn't Jones." Jay—"What, your name changed, too?"



## YOUNG FOLKS' COLUMN.

## Two Intelligent Dogs.

No. 1.—Sancho Spaniel.

[Written for the RURAL PRESS by SAMUELETTA DICKSON.]

While the milkman's son Walter was herding his father's cattle, he was studying and fitting himself for some higher position in life. He first went to work in a flouring-mill, and proved himself so efficient that in a few years he was made the manager of a fine mill in the new town of Rexville. Like most newly settled places, the hotel accommodations were poor, so Walter built him a small house near the mill, and "hached it."

As there was not much congenial society, he found his evenings long and lonely, and got a spaniel puppy for amusement and company.

Sancho, as he called him, proved a dog of great intelligence and aptness in learning tricks, so that he became the wonder of the town. When he was small, Walter felt afraid some one might steal him, so during the forenoon, when he was engaged in the mill, he left him in his room. As soon as the whistle blew, Sancho knew his master was coming, and, climbing into a chair, would stand at the window welcoming him with barking and much tail-wagging. After dinner, when Walter took his smoke on the porch, Sancho got his pipe—without tobacco, however, and holding it in his mouth, sat up in a chair beside his master, much to the amusement of the millmen, who used to call them the "happy parduers."

In the afternoon, Walter allowed Sancho to be with him in the office, and when the train came he taught him to take the book, go to the depot, which was not far off, and get the freight receipts.

When the mill closed at night, Walter always went over the huge warehouse before locking up, and Sancho took great delight in running up and down the long, narrow alleys between the piles of wheat sacks that reached to the top of the building. He especially enjoyed the forbidden fun of scaring the cats, one glimpse of their wild, shining eyes was irresistible—he had to give chase. Another sport was to hunt the hens' nests about the mill yard. He never disturbed the eggs, but waited for Walter to get them.

At supper, Sancho sat at the table and ate off a plate, but before he ate Walter taught him to put his forepaws on the table and bow his head, as if saying grace.

Sometimes he got hungry before supper was on the table. Then he would sit up on his hind legs and hold up his paws, but if Walter was busy and did not notice him, he would roll over and over in front of him till he gave him a bit of meat.

However, if Walter said when he laid down the meat, "Sancho, it is Friday; you know you are a good Catholic," the dog would not touch it until he said, "No, it is not Friday now;" then he would snap it up. Or if Walter said, "It is poisoned," he would not taste it until his master had shaken it and said, "It is all right now."

After supper they went up town, and Sancho greatly enjoyed the attention bestowed on him. When at the market, if Walter said, "Sancho, steal me an apple," he would slyly get one from the box and bring it to his master.

He liked this trick so well that sometimes he did it without being told, much to the amusement of the bystanders.

Sancho had a sweet tooth, and if Walter gave him a nickel and said, "Pay Mr. Green for the apple, and get some candy," he at once laid the money on the counter before the grocer who gave him the candy in a paper bag which he took in his mouth and carried home, and ate the candy while Walter read his paper and did his writing.

After this business, Walter began his evening's entertainment.

"Come, Sancho, let's have a little social dance."

Then while Walter played on his violin, the dog danced, and when he sang, the dog whined an accompaniment.

At Walter's direction, Sancho stood on his head in a corner behind a box while he hid a handkerchief, and when told to hunt the handkerchief, he at once did so, and quickly found it.

If Walter laid down on the floor a stone, a stick and a ball, Sancho could bring him whichever one he called for. After each performance the dog expected to have his master caress his long, silky ears and praise him.

"Sancho, would you die for the girls?" asked Walter.

Sancho made up a face expressive of disgust and shook his head.

"Will you die for me?"

Down the dog dropped, shut his eyes and lay perfectly still until Walter clapped his hands and said:

"That will do my faithful one."

Sancho did not like this trick of lying still, and if kept too long would open his eyes a bit to see if Walter was not ready to clap his hands, but if he said instead, in a tone of reproach, "Dead dogs can't peek," Sancho shut his eyes and looked ashamed at being caught with them open.

When Walter asked, "What do sleepy dogs

do?" Sancho opened his mouth and gave a wide yawn.

"Then it is time to go to bed," Walter replied. "Get your head." Then Sancho got an old coat which served for his bed, gave it a vigorous shaking, and finally laid it beside his master's head, but he did not lie down till he had "said his prayers," which he did by sitting on his hind legs with his paws crossed on Walter's knee and his head laid on them. He remained in this position till Walter said "Amen," then he jumped up and lay down on his bed.

Sometimes Walter went hunting in the mountains near Rexville, and then Sancho exhibited his natural spaniel sagacity, and Walter returned with a bag full of game.

Walter is all the time teaching new tricks to Sancho, who at present is not three years old, and with his wonderful aptness and his master's patience, there is no telling what he may yet do.

Walter had Sancho photographed performing his tricks, making a very amusing set of pictures.

## Sally.

[Written for the RURAL PRESS by ROSIE, Aged 15.]

Sally sat outside the schoolhouse door crotcheting. The tears were in her eyes and she looked as if she were going to cry.

"Go away, I hate you! I hate every one of you!" she suddenly cried angrily to the scholars gathered about her.

"Whew, what a spit-fire!" said Albert Dillon, the oldest.

"War signal!" shouted Will Bard in mock terror, while the girls giggled and whispered among themselves.

Sally began to cry. She wondered why they made fun of her and stared at her and watched her so much. Oh, yes, she knew that she was poor and lived with her father in a tent down on the flat, and wore a bonnet and went barefooted, while the other girls didn't, but what of it? Her dress, though patched, was always clean and her curly brown hair was neatly tied back with a blue ribbon and her lessons were always good.

Yet Daisy and Katie, both girls of her own age, never played with her, and their sister, "Miss Ella Bard," wouldn't even speak to her or notice her, neither would the other older girls, and the boys were always teasing her. She had never said a word about it, but kept silent; but this morning everybody felt out of spirits. Daisy and Katie stared harder than ever at her, and the boys, finding all else disagreeable, finally crowded about her in a most offensive manner, just to "see what she'd do," and Sally actually lost her temper.

"I'm just as good as any of you, and just as nice, and I think you are the meanest boys and girls I ever ever saw! So there!" and with flashing eyes she dropped the stitch she had just found after a five minute hunt.

"O, we don't care what you say; you're just wasting your tongue," was the rude reply.

"Think she was! She'd better lose a part of it and give me a chance to go to the head in spelling!"

"I'd rather—" "Hush, hush," said a firm voice, and the teacher stood before them. "It is getting cloudy, children, and I fear it will rain; it is a very dull day, and I think I will give you a half holiday. Sally," she said, gently placing her hand on angry Sally's head, "try and keep silent, my dear, and they will grow tired of teasing you. Sally said nothing, but walked slowly down the road.

She felt very sad and lonely as she listened to the roaring of the river as it leaped the high bank and poured into the deep narrow channel, that wound through the canyon, into the valley, passing the old, shabby tent that Sally called "home."

Her father had had "bad luck" since they left the neat little home in the valley, but was still toiling on hoping for another.

Sally helped her father as much as an eleven-year-old girl can, and never complained when she felt lonely and longed for poor mamma whom she could never see again.

As she turned the corner a sight came before her eyes which she never forgot; there, standing on the bank, just where the river was its deepest, holding in her tiny hands a yellow sun flower, was Lilly, the baby sister of Daisy and Kate.

Her golden curls were tossing in the wind, and her blue eyes were gleaming with pleasure.

Suddenly the rosy lips parted, she stretched out her arms to something she saw by the river, and then—oh, could it be?—she fell; there was a cry, more like a strangled moan, a rush through the bushes, and a moment more, all crippling and faint, Sally was standing on the bank holding little Lilly in her arms.

A week passed. The children were gathered at school around Sally and a little yellow-haired baby girl; but oh! how different were their faces! all smiles and laughter instead of angry scowls.

You don't hate us now?" It was Daisy Bard who spoke, as she put her arms about the now beaming Sally.

"No; I love you," said Sally, "and you love me, you all do now, and"—she paused and kissed Lilly's rosy cheek—"we all love our little peace-maker."

And peace there was ever after,  
Santa Paula.

## GOOD HEALTH.

**IDIOTS.**—An interesting experiment was made recently at the great idiot asylum of Paris. A kind of Punch and Judy show was exhibited before the inmates, with a view to ascertain whether any impression could be made by it upon their dormant intelligence: "About 1100 idiots were assembled in the gymnasium of the institution, most of whom had made some slight progress toward intelligence. Many of them had learned to tie their own shoes; others could dress themselves, with a little assistance; others could feed themselves pretty well; all had learned to sit still, and most of them could imitate the easier motions of their instructors. When they were seated and in order, the curtain rose, disclosing a small stage. The play presented was called 'A Dentist's Pupil,' and the fun of the piece was chiefly due to the vigor with which the hero plied his cudgel. At first the physicians were inclined to believe that the experiment was going to be successful. The unfortunates applauded the outdoings in their unconfined way, making loud outcries and laughing boisterously. It seemed that there was but one perfect idiot in the whole assembly—a dwarf, with a huge, misshapen head, who had been exhibited at fairs under the name of the 'King of the Eskimos.' He alone remained quite passive during the whole play. When the performance was over, the company relapsed at once into their usual silence and vacancy. There was no exchange of impression, no after-glow of interest, and, what was more discouraging, they appeared to have no recollection of what had occurred. The conductors of the experiment were obliged to conclude that the play had had no effect in rousing or stimulating intelligence."

**TOO MUCH SHADE.**—Houses in places otherwise unexceptionable are often so closely overhung with trees as to be in a state of humidity by the prevention of a free circulation of air and a free admission of the sun's rays. Trees growing against the walls of houses, and shrubs in confined places near dwellings are injurious also as favoring humidity. At the proper distance, on the other hand, trees are favorable to health. On this principle, says Dr. James Clark, it may be understood how the inhabitants of one house suffer from rheumatism, headache, dyspepsia, nervous affections and other consequences of living in a confined, humid atmosphere, while their nearest neighbors, whose houses are otherwise situated, enjoy good health; and even how one side of a large building fully exposed to the sun and a free circulation of air may be healthy, while the other side, overlooking shaded courts or gardens, is unhealthy. Humid, confined situations subject to great alternations of temperature between day and night, engender the most dangerous of all the physical qualities of the air, and humidity in general is the most injurious to human life. Dryness, with a free circulation of air and a full exposure to the sun, are the material things to be attended to in choosing a residence.

**CITIES DETRIMENTAL TO EYESIGHT.**—That "we are all poor critters," as the Widow Bettott quoted her late husband's saying, is but too well proved by noting the percentage of thin, scrawny, pale and otherwise defective people in any crowd; but of late the doctors have presented appalling proofs that city-bred people are unhealthily "poor critters." Their greatest defect is in the eyes. One-third of all the city people are more or less near-sighted. The tall buildings limit their range of vision, the invisible dust, even more than the visible, injures the eye, and the wearied organ is not restored by gazing over the green fields and far away. The narrow walls of the home or playground or schoolroom shut the children in during their growing years, and the eye, habituated to so short a range, loses half its capacity. The truth of this is proved, and more, the city.

**THE CHIN IN WALKING.**—Much care and thought should be exercised in walking. The shoulders should be kept up and square; the chest should be expanded. The chin is the pivot upon which largely depends the poise of the machine. Step out easily and firmly, letting the hall of the foot strike the ground first, so that you get the benefit of that beneficent little spring which Dame Nature has built into your instep to save the rattle and jar to the whole system, which people who will walk on their heels inflict on their anatomy.

**GIRLS WITH THEIR SCHOOL BOOKS.**—The habit of young girls carrying their school-books under their arms, or in bags or portfolios hung from their arms, is said to be to distort the figure. German doctors are exhorting parents to provide young girls between the ages of 11 and 14 with knapsacks for carrying their school-books.

**THE BLOOD IN PNEUMONIA.**—Dr. Kikodze, a specialist, has been devoting his attention to the condition of blood in the human body during pneumonia, and found that during the course of this disease, the white corpuscles increase in number as much as three times what they are in healthy persons.

## DOMESTIC ECONOMY

## Canning Small Fruits.

The following as prepared by Mrs. E. R. Parker for the Marysville Appeal, will be found worthy of consideration by housekeepers who desire to do canning:

**Small fruits, berries, currants and cherries** for canning, should be selected with care, and only the most perfect need, as well as the best sugar. The self-sealing glass jars are preferable to any others.

When ready, the cane should be set in a large pan of hot water, and set on the back of the stove. The syrup may be prepared and the fruit added. When the cans are ready they should be filled as full as possible, and set aside where no cold air will strike them.

**Strawberries, raspberries and blackberries**, after being carefully picked over, should be put in a porcelain lined kettle and set on the stove, and let come to a boil, when a quarter of a pound of sugar should be added for every pound of fruit. As soon as well heated the berries should be put in the cans.

**Canned Currants.**—To every quart of currants allow half a pound of sugar. Put in a porcelain-lined kettle and cook together for fifteen minutes and can.

**Gooseberries.**—Pick and wash the berries; put in a kettle with water to cover. Let cook twenty minutes; add half a pound of sugar to every pound of fruit, and let simmer ten minutes; can and seal.

**Canned Cherries.**—Stone ripe cherries, if Morelloes or other varieties. Allow half a pound of sugar to a pound of fruit. If sweet cherries, a quarter of a pound of sugar to a pound of fruit will be sufficient. Cook the fruit and sugar together for twenty minutes and can.

**Canned Pie Plant.**—Cut in pieces two inches long; put over a slow fire, with equal quantities of sugar. Let cook slowly until clear, and can.

**Canned Raspberries with Currant Juice.**—Make a syrup of five pounds of sugar and one pint of currant juice. Let boil; add four pounds of ripe raspberries, and boil ten minutes. Put in glass cans.

Light injures all fruit, and after canning it should be set in a dry, dark place. Cans should be examined two or three days after filling, and if leaking from the rim, they should be unsealed, and the fruit cooked down into jam, or used in some other way, and not returned to the cans.

**CHICKEN BROTH.**—Cut up a fowl and remove all the fat and skin, as these leave a strong flavor in the broth. If a very delicate flavor be desired, put the meat on to boil in cold water; boil five minutes, pour off the water and add fresh, cold water; then simmer until the meat is in shreds. Take out the breast as soon as it is tender. Strain the broth, and when cool, remove every particle of fat. Heat again, and when boiling thicken with whole wheat flour wet in cold water, one tablespoon flour to each pint of broth. Season delicately with celery salt and white pepper. When a richer broth can be taken, add half a cup of sweet cream and the breast of the chicken out in small dice.

**SPONGE CAKE.**—One pound of sugar, three-quarters of a pound of flour, ten eggs. Dissolve the sugar in one gill of water, then put it over the fire and let it boil. Beat the eggs a few minutes, till the yolks and whites are thoroughly mixed together, then stir in very gradually the boiling sugar; beat the eggs hard all the time you are pouring the sugar on them. Beat the mixture for three-quarters of an hour; it will get very light. Stir in the flour very gently, and add the grated rind of a lemon. Butter your pan and set it in the oven immediately.

**POACHED EGGS.**—Have a broad shallow vessel of boiling water. Break your eggs in a plate, and be careful not to break the yolks. Take the water from the fire, slide the eggs carefully into it one at a time, and then put them over the fire again. While they are boiling throw the water over the yolks with a spoon, and as soon as the whites are thick take them out with an egg slice. Trim them neatly and send them to the table hot.

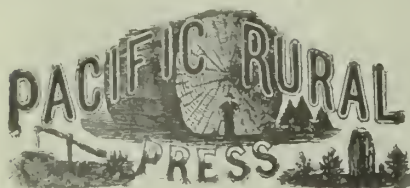
**RAISIN-LAYER CAKE.**—Three-fourths cup butter, two cups sugar, yolks of four eggs, one cup milk, three cups flour mixed with 2½ teaspoons baking powder, one teaspoon lemon extract. Bake in four jelly-cake tins; fill with raisin cream, made of whites of four eggs beaten well, half-cup fine sugar, half-pound heated raisins chopped fine, half-cup chopped currants.

**BANANA CAKE.**—Bake any light cake in shallow pans as for cream or jelly-cake. When ready to serve (not before) cover one cake with sliced bananas, sprinkle with powdered sugar and orange juice. Put on the other cake and cover in the same manner.

**CREAM SAUCE.**—Boil a pint of cream, sweetened very well with white sugar, and flavored with grated lemon-peel or vanilla. Let it boil once, then take it off the fire and strain it. Serve it hot or cold, according to the dishes it is to be eaten with.

**CARAWAY COOKIES.**—One-half cup butter, one cup sugar, one egg, two tablespoons caraway seeds, one cup cream, one-half teaspoon soda, flour to roll out. Mix rather soft. Roll thick, cut off, sift sugar over, and bake quickly.





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W. B. EWER.

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## Business Announcements.

## [NEW THIS ISSUE.]

Windmills, Well Tools, Etc.—Pacific Manufacturing Co. Auction Sale of Horses—Kilip & Co. Squirrel Exterminator—F. E. Browne, Los Angeles. Fruit Drier for Sale—Joseph H. Dorety. Incubator for Sale—Leonhart Bros., Fresno. Orange Seed—L. G. Sresovich & Co. Windmills, Pumps, Etc.—R. F. Wilson, Stockton. Fruit Graders—G. G. Wickson & Co. Carlisleum Avenarius—Muecke & Co. Irving Institute—Rev. Edward B. Church. Eisen's "Raisin Industry"—Gustav Eisen.

See Advertising Columns.

## The Week.

As we go to press on Wednesday evening the signal service promises light rains over the upper half of California and the air certainly feels like it. It will be a June rain, rather a rare thing, and it is to be hoped it will not fall in any amount for there is little that can be helped by it. If it would kill grass hoppers it would be a great blessing, for these pests are doing too much injury on the foothills and the eastern side of the great valley. Every device is being employed to reduce them and even the arsenated bran does not always succeed this time though it is doing much and the arsenic supply is being reduced.

The fruit season is advancing fast and supplies are being readily disposed of as they ripen. Eastern shipment of cherries and apricots is helping out greatly. Prices in local markets hold up well so far and the outlook is good. Complaint is made of light-weight raisins. We hope California packers will not

pursue that reprehensible and suicidal policy. Californians can afford to give full, honest weights.

## Arrangements for Farmers' Institutes.

The Regents of the State University at their meeting on Tuesday of this week, took action which makes it possible to outline the conditions under which any locality of the State can secure the co-operation of the University in arranging and holding Institute meetings. It may be remembered that at the Regents' meeting of March 10, Prof. Wickson was "appointed to organize and carry into effect a system of farmers' meetings substantially similar to that already in operation in Wisconsin and other agricultural States," and "instructed to report to the Chairman of the Faculty a suitable plan and regulations for that purpose, including the enlistment of other speakers from the University Faculty and from the ranks of practical agriculturists as may be found feasible."

In accordance with the foregoing instructions, Prof. Wickson prepared an outline of arrangements, which received the approval of the Regents, as stated above. For the information of our readers we give below a sketch of the policy to be adopted and a synopsis of the arrangements to be entered into with the parties in localities in which Institutes are desired, as follows:

A. That the work proceed somewhat slowly at first with the expectation that the numbers of meetings will increase as the people become informed on the character of the Institute effort and its influences as a factor in the advancement of practical agriculture. Such has been the history of the work in those States in which the system has reached its best development.

B. That for a time at least the work be allowed to proceed in directions which seem to welcome it; or, in other words, that the demand for the work, as shown by application and local preparation for it, shall indicate the direction in which the supply shall proceed. This is not only a natural course for the effort, but is at the same time a surety of local interest and co-operation without which success is impossible.

C. That it shall be understood that evidence of such interest and co-operation shall be manifested by willingness to undertake local preparations for the meetings; that representatives of local agricultural societies or volunteer committees, or energetic individuals acting singly, shall undertake to arouse local interest and secure promises of participation from progressive agriculturists of the region—both men and women, when feasible, shall provide suitable places of meeting, and whatever local printing may be desirable for the public information, and shall meet whatever expenses shall arise in the carrying out of their own plans.

D. That whenever the officer of the University who is conducting this work shall be assured of trustworthy local interest of this kind it shall be his duty to render the local participants every possible assistance in planning their meetings and in other preliminary preparations, and either he, or some other member of the University staff, shall attend in person (without expense to the locality) all meetings which are understood to be held under University auspices.

E. That such meetings, when understood to be under University auspices, shall be conducted by the University representative under rules usual for the conduct of parliamentary bodies—that all such meetings shall be understood to proceed under the head of "Special Order," which shall be the improvement of agricultural practice and the education of the people in the sciences underlying it, the improvement of the home and the methods of home life; the advancement of educational interests and intellectual culture, and other matters calculated to render the meetings valuable, entertaining and profitable, but that all vexed questions of politics, religion, socialism and the like shall be considered out of order. This course has been fully approved by Eastern experience with such meetings.

It is hoped that by this plan of thorough co-operation between the University staff and the local representatives, it will be possible to hold Institutes where they are most likely to prove successful, and thus to inaugurate the system under propitious circumstances. The first

thing to determine is the applicability of the Institute style of work to the tastes and needs of California people. When that is affirmed by experience, it will be in order to adopt a more aggressive policy, and to carry the effort into regions which may not undertake much in their own behalf. This will be for the future to determine. The present undertaking is preliminary. Comparatively few people know what a Farmers' Institute is. A few months' experience in this State will supply this information and forecast the future of the work. Prof. Wickson is now in correspondence with several counties in reference to holding Institutes and is ready to make himself as useful as possible in this line of University extension. Detailed information and careful suggestions will be given to all who manifest a desire to begin Institute work in their regions of the State.

## The Coyote Scalp Business.

The new bounty for coyote scalps promises to largely deplete the ranks of the varmints. Coyote killing is being taken up systematically. It is announced from Fresno that the office of the county clerk has been besieged with people loaded with scalps. Two business men of Fresno have conceived the idea of making the capture of coyotes a business. They have gone over on the west side and have established an agency in Fresno. In less than a month they have sent in 87 scalps. They use rifles to destroy the animals, and it is said there is an inexhaustible supply of them. Hundreds of scalps are coming from all quarters for redemption at Fresno.

This is all fair enough apparently, and if vigorous work is done in all infested regions, the coyote pest will be largely and quickly reduced. But tax-payers will not undertake to clean out coyotes from outside territory. It is reported that the custom's inspector detailed to look for a coming Chinese at Tia Juana, on the Mexican line in San Diego county, recently seized a large bundle of coyote skins, some 50 in all, which the owner was endeavoring to bring over the line. The fact behind the seizure is that a company of sharp Mexicans have concocted a scheme to kill coyotes below the Mexican border line, bring them across the line surreptitiously into California and secure the bounty offered by the State. The inspector, in reporting the amusing trickery, writes that the Mexican speculator who invented the money-making plan furnished arms, ammunition and food to his employees and succeeded in one month in cheating the State out of \$175.

## The World's Want Is More Money.

Mr. Goschen, Chancellor of the British Exchequer, advises the issue by that Government of one-pound notes, and also of 20-shilling notes secured by silver. No bank of England note has yet been issued for a less sum than five pounds; both these propositions are a new departure in British finance. It shows that Mr. Goschen, at least, fully realizes the fact that the increase of money has by no means kept pace with the world's requirements, and that something besides gold must be used as a money basis. It shows also that silver will be used to supply this hole for more money.

Money-lenders and all who trade in money and prosper best when money is tight and "times are hard," have and will continue to oppose an increase of circulating money because it snubs their present selfish purposes.

The farmer, the miner, the manufacturer—those who need money to carry on the industries and commerce of the world and to develop new industries—need money at reasonable rates of interest. They do not so much exercise themselves about the security back of this money, if only it have the good faith of the Government issuing it, though all agree that silver, which has served so long and well, properly supplies the want. The gold advocates, or rather the opponents of more money in this country, know that if any other basis than gold is used to increase the circulating medium it will be silver, therefore their whole effort has been directed against silver. They have counted on England's financial policy as backing of the first order, and it would seem as if this proposition of Mr. Goschen must be a knock-out blow for them.

We have no need of land notes or any other form of money in this country than gold and

silver if we fully utilize our resource of these metals, and there will be enough for England as well.

## Wheat Crop Estimate.

We will publish in next week's RURAL the estimated stocks of grain held in this State on June 1st of this year. It gives a smaller quantity of wheat in store than at a like date since 1884. By these returns, which are accepted as approximately correct, we can form a fair idea of last year's wheat output. The exports from June 1st, 1890 to June 1st, 1891, aggregated, with flour reduced to wheat, 856,004 tons; the local consumption, accepting average figures per capita, for the fiscal year 205,900 tons; seed for 3,700,000 acres (for the preceding year it was not quite 2,600,000 acres) 154,500 tons; feed for stock estimated from returns made by well informed parties in each county, 120,000 tons; stock (flour reduced to wheat) held in the State on June 1st, 99,503. Total 1,435,907. From this deduct the following: Stock on hand June 1st, 1890, 252,216 tons; receipts from Oregon and Washington 99,900 tons. Total 352,116 tons, which gives the wheat crop in 1890, 1,083,791 tons, or within 100,000 tons of the crop of 1889. The large quantity fed to stock during the season drawing to a close was due to the high price of barley, besides which many localities, not having any need, wheat almost if not entirely.

The prospects for a large output of wheat this year could not be better. Cool weather the past few weeks will cause many fields to yield a fair average that the forepart of May were expected to be cut for hay. The plant, taking the State as a whole, stood out well, while the meadows are above an average. The berry will average plumper and heavier than for years. As the acreage seeded to wheat is estimated to be not less than 3,700,000 acres, it will be seen that even allowing one-third a failure or to be cut for hay, yet the acreage to be harvested will aggregate as much as the entire acreage seeded in 1889, and of which latter fully 20 per cent was cut for hay. At this writing, from all data at hand, it appears reasonable to claim that this year's crop will be among the largest if not the largest harvested in this State.

**MR. KOEBELE GOES ABROAD AGAIN.**—Secretary Lelong of the State Board of Horticulture announces that Albert Koehle, the introducer of the *vedalia cardinalis*, will again go to Australia, New Zealand and adjacent countries, to search for parasitic and beneficial insects for introduction into this State. An arrangement has been made whereby the Department of Agriculture pays his salary and the State Board of Horticulture pays all his expenses, and he will thus be kept abroad at least two years.

**VITICULTURAL MEETING.**—At a meeting of the Viticultural Commissioners in this city, this week, J. De Barth Shorb was chosen president and C. J. Wetmore, Viticultural Officer. Other officers were re-elected. C. A. Wetmore made a report on "markets for wines," which will soon be published in pamphlet form for general distribution. It is also planned to publish a treatise on brandy distillation and a full directory of California grape-growers.

**PEACH SALE REPORTED.**—It is stated that Hunt Bros. have purchased of C. A. Man of Bakersfield all of his Orange Cling peaches of this year's crop at \$40 per ton, but will take no peaches that measure less than 2½ inches in diameter. The Orange Clings ripen in August, and they expect to get at least two carloads that come within the contract. They will be put up in glass jars for the fancy Eastern market.

**MORE PEOPLE WANTED.**—The real estate and other organizations of this city are agitating the immigration question, and have appointed a committee to issue a call for a general convention at some date in the near future.

**RUSSIAN WHEAT.**—It is telegraphed from St. Petersburg that an official report says the yield of winter wheat is expected to be below the average, and that a large deficit in the rye crop is certain.

**THE INTERSTATE COMMERCE COMMISSION** paid a flying visit to this city the beginning of this week.



## The University Culture-Station near Paso Robles.

We intend to give from time to time, as opportunity offers, views and descriptions of the sub-stations tributary to the University Agricultural Station at Berkeley, and under direction of Prof. Hilgard, the head of the Agricultural Department of the University. There are several of these stations devoted to general outcrops, as our readers already know, and they are located in Amador, Tulare and Los Angeles Counties—in addition to the one to which we especially refer at this time, in San Luis Obispo County. In the selection of the locations for the stations, Prof. Hilgard proceeded upon the plan of making them representative of as extensive areas of the country as possible, though of course it is not possible to cover the whole State with the few stations, for the establishment and maintenance of which, adequate funds are at present available.

The station near Paso Robles is known as the "Southern Coast Range Station." In selecting for this district of the State Prof. Hilgard, in his report for 1890, gives the following sketch of the considerations which governed his choice:

"It has been thought that these conditions (of the Southern Coast Range) would be best fulfilled by the establishment of a culture sub-station at some point in the largest valley of the Southern Coast Range—that of the Salinas river—representing a very large area of agricultural land, just being opened by the extension of the Southern Pacific railroad, and but little tried as to its productive capabilities. As the needful offers of land and money for station buildings were made from the upper Salinas valley, two personal visits to that region were made for the purpose of exploration and final location."

By such examination it was found that not only does the granitic soil occupy the largest area in the region, but that it is of considerable uniformity over its entire cross-section from the Salinas to the Estrella, it seemed proper to locate the station mainly with reference to this predominant soil, and in so doing to consider the convenience of proximity to the railroad. After examining many possible locations, it was concluded to accept the offer of Mr. J. V. Webster, of Oreston (who had taken the most lively interest in the matter), of a tract of 20 acres lying about two miles north of Paso Robles, three quarters of a mile east from the Salinas river and about 80 feet above it, on the plateau level, on the main road from Paso Robles to the Huerfano settlements, and within the region where the adobe knolls project through the granitic sand soil, so as to permit of a representation of both kinds of land within its limits.

The tract, as is shown on the plat (given herewith), is a parallelogram 1710 by 495 feet, the latter dimension representing its frontage on the public road, while the longer runs due north and south. The forward (southernmost) two thirds of the tract is practically level and presents the typical soil of the plains to the eastward, while in the rear third there are two additional soil varieties, to wit: that of the swales in the sandy lands, and on the northwest corner a triangular, sloping piece of heavy adobe clay land. The latter forms the foot of one of the hillocks already mentioned, on the top of which there is an extraordinarily luxuriant vegetation lasting far into the summer. In the northeast corner is included part of a "hog-wallow" area, the soil of which is slightly heavier than that of the front portion, yet not materially different.

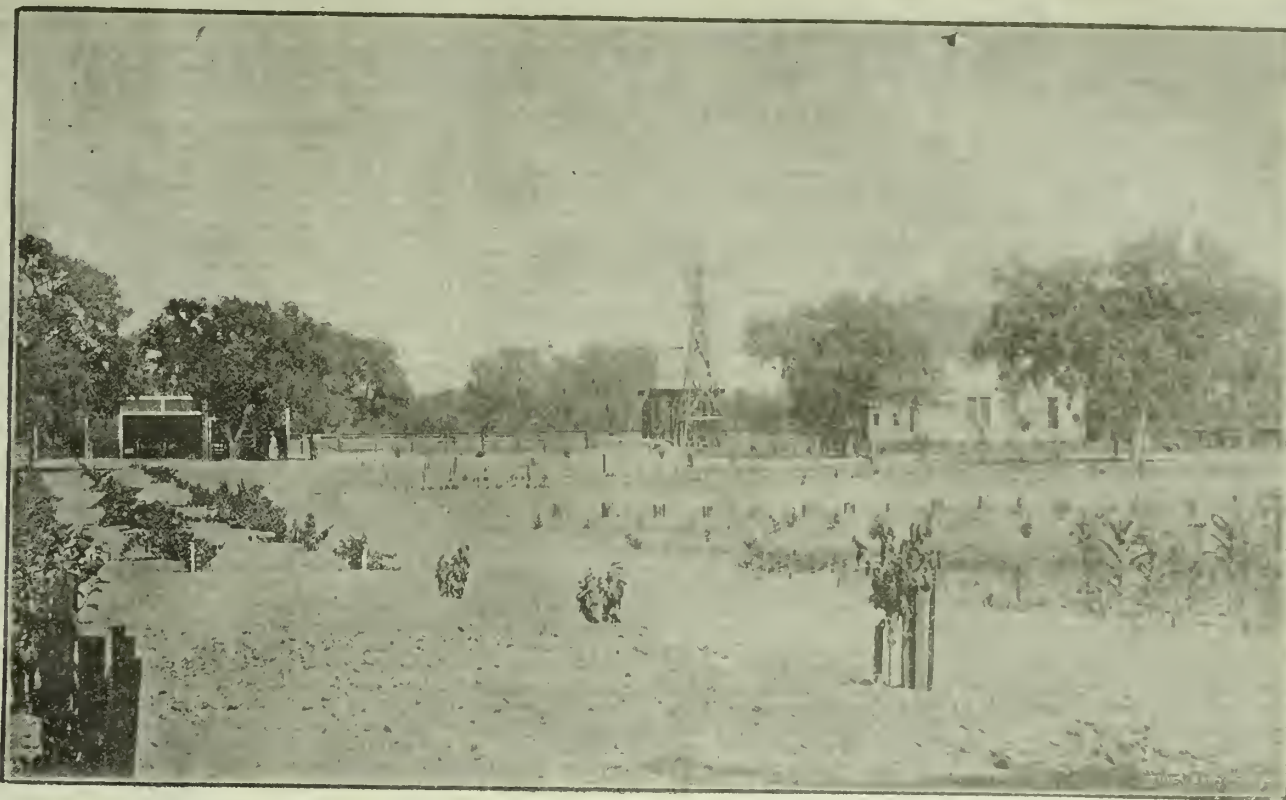
The tract was inclosed with a substantial "six-board" fence, of redwood posts, with Oregon pine planks. The latter had been so disposed that it was hoped rabbits would be excluded; but experience showed that this was not the case, and it became necessary to interpose in each of two lower spaces a strand of barbed wire. Unfortunately, considerable damage to young trees and vine cuttings occurred before this additional protection could be given.

The buildings on the station grounds consist of a dwelling and a barn; the cost of the former was defrayed by subscription from citizens, chiefly of Oreston, Templeton, and Paso Robles. The dwelling house is a neat two-story frame cottage, rustic finished; dimensions, about 30 by 38 feet, inclusive of verandas in front and rear; it has eight rooms and bath. The front faces south, toward the county road and main entrance. Several groups of oaks have been left standing around the house and outbuildings, for shade and protection from wind.

The barn is placed near the east line of the tract some distance in the rear of the house; is also rustic finished, sixteen by sixteen feet, with three stalls, and hay loft giving room for five tons of (baled) hay. Adjoining the stable are wagon and tool sheds, each sixteen by fourteen feet; a space sixteen by 48 feet is in addition covered by a lean-to roof, forming an open shed, affording additional space for storing implements, etc., from the weather.

Between the barn and the house is a dug well about 105 feet deep, and four feet in diameter (with wooden cimbing down to 40 feet, and brick for seven feet from bottom), which, as a rule, contains about five feet of excellent water.

The plan adopted in laying out the track for



THE UNIVERSITY EXPERIMENT STATIONS—SUB-STATION AT PASO ROBLES, CAL.

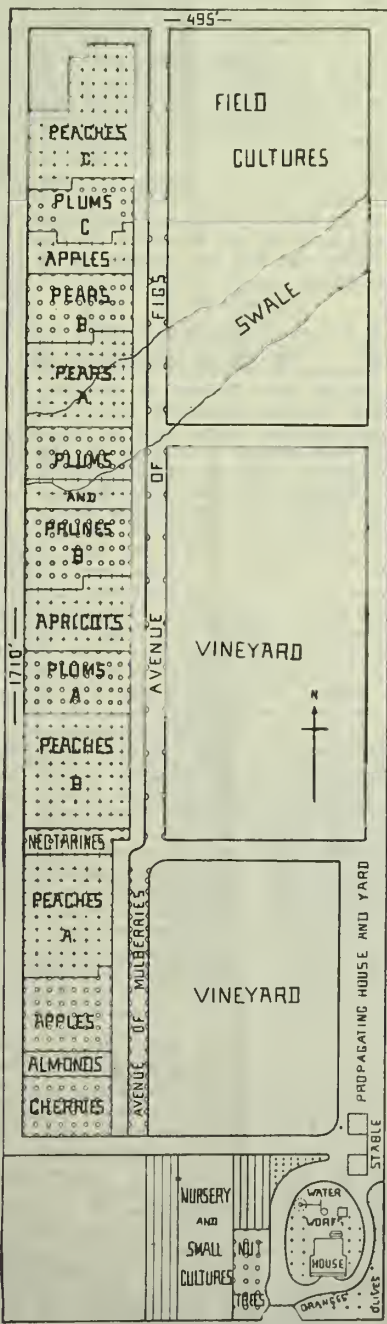


DIAGRAM OF STATION GROUNDS AT PASO ROBLES.

planting will be best seen from the accompanying diagram.

The space immediately adjacent to the house has been laid out with curved roads and walks, and planted with a variety of trees, as well as with such plants as whether in propagation or permanent growth, require extra care and watering. Small cultures of all kinds occupy the southwest corner, left in blank on the plat, while between the house and the east fence, under the lee of the oak groves from the pre-

vailing wind, there is a plantation of citrus fruits and olives.

In laying off the vineyard and orchard it was necessary, on account of the long rectangular shape of the tract, to extend these likewise, in order to cover the variations of soil that to a certain extent occur, even in the sandy land; and for the same end the several fruits were not planted in solid bodies each, but somewhat subdivided, so as to show, as far as possible, the influence of soil variations. The heavy soil of the swale was divided between pears and plums, as being most likely to succeed in it.

The plot on the northeast corner of the tract, reserved for field cultures, embraces a fair representation of the bulk of the lands likely to be used for such purposes; a somewhat heavier loam than the land occupied by the fruits, yet not of an "adobe" character.

### A Local View of the Station.

The foregoing relates to the permanent features of the station and its equipment. The following running account of the outcrops now to be seen at the station was prepared for the Paso Robles *Moon* by a reporter who was shown about the place by R. D. Cruickshank, who has been in charge since the establishment of the station.

The orchard comprises over 600 varieties of fruit trees, embracing all the finest kinds of deciduous fruits in cultivation. Many other curious and useful trees and plants are grown, such as the bamboo, cork tree, Osage orange, eucalyptus, and ramie, the new silk plant about which so much has been and is being said as a substitute for silk. The mulberry trees are doing exceptionally well.

At the present time there are over 100 varieties of grain to be seen. It is doubtful if ever such a fine showing was seen before, as all of them have done remarkably well. Mr. Cruickshank says that they beat his last year's crop. He showed samples last year in San Luis Obispo and Santa Barbara counties and gained four diplomas, and the silver medal of the Santa Barbara Agricultural Association.

Among forage plants there are many new and excellent adjuncts, which are likely to prove advantageous to our depleted pastures where the bunch grass has been killed by too numerous herds of cattle, two grasses in particular, the Japanese wheat grass and the Schroeder's brome grass, which are the best. They, with the clover-like plant called the esparcet or sainfoin, have been thoroughly tested and are highly recommended as being able to withstand all the drouth we have, and remain comparatively green when all native grasses of an annual nature have gone down to mother earth whence they spring.

The vineyard is perhaps the best success of all, and must become highly interesting. The following types are represented: Bordeaux, Burgundy, Southern French, Sauterne, Rhenish, Hungarian, Austria, North Italian, Port, Sherry and Madeira, Table and Raisin. There are also in nursery over 50 additional kinds of grapes, taking in all the indigenous varieties for resistant stocks. Results point to this section as being pre-eminent well adapted for all the vitis family, but as time has not yet transpired to find out which varieties will be most prolific to grow, it would be premature to say. This year will decide in many cases, as the trees are well laden with fruit and the wine-making qualities will be tested in the University's laboratory.

While attending to the requirements of the fine things, we are pleased to note that Mr. Cruickshank has not forgotten to attend to vegetables all during spring. From February to date, he has had plenty peas, radishes, lettuce, beets, onions, turnips, etc. He has proved that the leaves of the sugar bean make a splendid substitute for spinach, and yield an everlasting crop (the roots are also the finest kind of chicken feed when boiled). Potatoes of 17 kinds are being tried, and all are looking finely at present.

The cultivation of the ground is in the highest state. As there is no attempt at irrigation, none of the trees or vines have received a drop of water, and the whole shows that we are able to do without irrigation."

The favorable local view taken of the station work at Paso Robles is very encouraging, for it is largely as local centers of information that the stations must yield benefit, although of course, the work has also wider significance. Mr. C. H. Shinn, inspector of the University stations has recently visited the Paso Robles station, and gives a good report of its condition and outlook.

## QUERIES AND REPLIES.

### Gopher Destruction.

EDITORS PRESS:—I have been a reader of the *RURAL PRESS* for several years and have noticed a number of articles in regard to preventing gophers from destroying fruit trees. I have conversed with every one I had a chance to on the subject, and have collected the following ideas, which I think are worth room in your valuable paper:

I take a stick (a broom handle makes a good one) and run it into the ground directly under the tree or to the center. I then drop in the hole a piece of assafetida gum; then put a little warm water in and stop the hole up.

Another way to keep gophers out of the garden is to dig a trench, say 18 inches deep, or as deep as the gopher runs his hole, and about a foot wide. In the bottom of the trench sink coal oil cans not more than 20 feet apart, so the tops will be level with the bottom of the trench. The top of the oil can must be cut out. The gopher digs his way into the trench and runs along the bottom until he falls into the can and is a prisoner. Gophers will never get into a garden with this trench around it.

I have been trying the assafetida, and where gophers have worked nearly all the way around a blue gum tree, the tree is still green and thrifty. How often this should be renewed I do not know. If this is a sure preventive it is worth knowing, and I wish others to try it and determine on how often it should be renewed.—CHAS. WHITING, Los Banos.

We would like to know the results if our readers, try the assafetida plan. The pitfall plan described by our correspondent is an old one, and has always, so far as we know, proved effective.

### Mortality Among Chicks.

EDITORS PRESS:—Please insert the following queries about young chicks in the *PRESS*. Has any poultry raiser lost any chicks about two weeks old, with these symptoms, well in the morning, when taken from brooder we find them limp, not able to stand or hold up their heads, and finally die. We have fed cracked wheat, bread crumbs, and oared for them as we usually do. If any reader can give remedy or cause for it, will oblige one of your old subscribers.—J. H. D. Arno.

### Siphons and Water Rights.

EDITORS PRESS:—There is a ridge some thirty feet high between a stream and a point lower down and sixty rods away; will a siphon work well over this ridge, and is it liable to get out of order?

Has one through whose farm a stream runs, a right to pipe water from the stream for domestic and stock use, notwithstanding the water is all claimed below?—S. P. SNOW, Ventura County.



## AGRICULTURAL NOTES.

## CALIFORNIA.

## Alameda.

**IMPROVED GRAIN CROPS.**—Haywards *Journal*: The grain around Haywards looks fine, and even the late grain has pulled itself together of late and is filling out well. A large amount of hay has been cut, and if the rain holds off we will all be happy.

## Butte.

**A WALNUT GROWERS' CHALLENGE.**—Brush Creek Cor. Oroville *Register*: Joel Flynn challenges the State to beat the growth of his English walnuts ten years from the seed. They are in full bearing, and some of the trees are 75 feet in height, with trunk measuring 4½ feet in circumference, and a spread of branches 40 feet in diameter. The number of fruit trees in this vicinity is about 5000, and many, if not all varieties require no irrigation.

**RED-DIRT FARMING.**—Oroville *Register*: B. F. Darby and J. N. Armstrong were discussing red dirt farming this week, when the latter said: "Ten acres of red dirt well manured will produce as big a crop as five times that area of land without manure." "I cut from 17 acres of manured land," said Darby, "as much hay as I cut from 70 acres of land without manure." "Yes," said the former, "20 acres of red dirt, well taken care of, is more profitable, and one can produce a bigger and more profitable crop upon it than upon a hundred acres without manure." "The trouble is," said Darby, "that we are just learning how to farm the red dirt to advantage. If it is well plowed, and then kept moist by cultivating, you can raise almost anything upon it. I have tried corn, and know that it does well on land that is well manured and cultivated." Said Armstrong: "We ought never to sell anything from our red land, but feed the hay and grain upon the land; that is the way to make it pay well. If you cultivate and manure red land, you can grow almost anything upon it." The discussion continued at some length, but the point made by each farmer was, that red dirt needed manuring to enrich it, and that a small tract of it thus made profitable would produce larger crops by two or three fold than the same land without the use of manure.

**GOOD ORANGE SECTION.**—Cor. Middleton *Independent*: Orange blossoms are seen in beautiful profusion in all directions. In some places, oranges are yet on the trees. The sight of both the blossom and the fruit at the same time is very attractive. That is one great advantage in raising oranges; the crop may be left on the trees for months. Oranges were ripe here by Dec. 1st, yet now, June 1st, there are still oranges to be seen on the trees. The two citrus colonies, Palermo and Thermalito, are growing steadily, and the acreage in oranges has nearly doubled this spring.

## El Dorado.

**FRUIT CROP.**—Placerville *Democrat*: Ranchmen throughout the county are now vigorously engaged thinning out fruit. Inquiry among residents of the various leading fruit districts of the county elicit the information that peach, plum and prune trees are heavily overladen, and a tremendous amount of fruit is being taken from the trees. The crop will be as large as any ever recorded in the county.

## Fresno.

**GOOD PRICES FOR FRUIT.**—Fresno *Expositor*: Major J. E. Hughes, who resides four miles south of this city, sold his fruit to-day on the trees. The purchaser does the picking and Major Hughes has nothing further to do with the crop. The purchase price was \$6750, which makes just \$100 per acre net, there being 67½ acres of fruit. The fruit consists of apricots, apples, peaches, etc.

**RAISINS IN THE SWEAT ADVANCING.**—*Expositor*, June 2: There has been a firm advance in the price of the finer grade of raisins. Large sales have been made at five cents a pound. The outlook is encouraging.

**CROP PROSPECTS.**—Sanger *Herald*: The grain crop has been developed rapidly, and now barley, wheat, etc., are all headed out. Wheat that gave the appearance a week ago of making only a small yield now presents a more encouraging outlook. The present cool weather will give later sown grain further time for more proper maturing, and will also allow the heads to more properly fill out. The berry is now in the dough, as the farmers term it, and the meches in the head are well developed.

## Kern.

**LARGE GRAIN CROPS.**—Bakersfield *Echo*: Cumming's valley is one continuous grain-field from the foothills that surround it. The grain is good. The fine residences of its numerous and prosperous farmers are beautifully located on slight elevations near the foothills, each supplied with fine spring water from the mountains, and each or nearly all have a magnificent view of this immense grain-field from their front doors. The valley is six miles long and about four wide. The people of Tehachapi, Brite's and Bear valleys are similarly situated almost every foot of tillable land being covered with good grain. The recent rain will undoubtedly make the crop better than ever before since the valley was settled. Fruit trees are also doing remarkably well.

**GOOD GRAIN CROP IN ANTELOPE VALLEY.**—Bakersfield *Californian*: This year some 10,000 acres are in wheat, all of which promise abundant harvest. There has not been so

much rain, but the cool days and nights of last month in some way filled out the berry, so that the grain, soon to be harvested, is plump and heavy weighted.

## Los Angeles.

**HOW HE GROWS POTATOES.**—Covina *Argus*: The potatoes being dug on the Vosburg-Neil ranch seem to be turning out poorly. An old potato raiser says they were planted too early, while another ascribes the small apparent yield to the method of cultivation. The latter is very successful in raising heavy spring crops of fine, large potatoes without irrigation, and says perfectly level cultivation is the best. That in this section the tops are small and any billing-up covers some of the leaves that should be exposed to the air, and cuts short the crop just that much or even more in proportion. This we know, that in any dry country nearly every sort of vegetable makes a finer growth and gives better returns with flat cultivation, and we always have a hearty respect for the opinions of a man who "gets there" with a good crop.

## Modoc.

**DAIRYING.**—Alturas *Herald*: J. Tbad Jones, the farmer and stock-raiser residing six miles from town, is fitting up a dairy at his Rocky Prairie ranch. He has secured the services of a professional dairyman and is going to make butter on an extensive scale and scientific principles. In point of feed and water, Mr. Jones has all that heart could desire. The ranch is covered with a heavy growth of the richest of grasses, while from the hillsides burst springs of ice-cold water, and just below one of these is situated the dairy or milk-house; through it passes a stream of pure cold water, and in which is submerged a Cooley creamer containing the milk of about 30 cows. The dairy is furnished with all modern conveniences, and will manufacture nothing but sweet cream butter.

## San Bernardino.

**TREES KILLED BY POOR FERTILIZER.**—Redland *The Facts*: It is not generally known that some commercial fertilizers must be used with care or they do more damage than good. H. G. Billings has just learned this fact at a cost of \$3000. He recently set out 25 acres of extra choice Navel in Crafon, and in order to send them ahead as fast as possible he placed a good supply of fertilizing material about the roots. This was a good deal the nature of unslaoked lime, and as soon as water was turned on it burned the roots, and all the trees on the 25 acres were killed. He has now engaged S. W. Strong to replant the tract to new trees.

**CROPS AT RIALTO.**—Cor. Los Angeles *Express*: It is said that the first barley that appeared in the market in this county this season came from Rialto. The bay crop is very heavy here this year. The fruit and berry crop will also be good, especially grapes and blackberries. Deciduous and citrus fruits will be heard from in great abundance as the colony grows in years and the many acres "put to" fruit trees, come into bearing.

## San Diego.

**NEW ACREAGE IN FRUIT.**—S. D. Union: Horticultural Commissioner James P. Jones says that this season's planting of fruit trees exceeds by many thousands anything ever known in the county. The ambition to produce and thus to increase the yearly income and also the value of property has possessed ranchers all over the county, and the result has been a tremendous importation and planting of both citrus and deciduous trees. The county is divided into three horticultural districts. In the 3d from Temecula north, over 100,000 trees, both citrus and deciduous, have been planted. In the 2d district, including Escondido, 175,000 trees had been planned up to February 15th, and over 100,000 have been set out since that time. Up to February 15th, 275,000 trees of various kinds had been sold from this city, and since that date eight carloads have been received, or about 34,000 more. In addition to these, more than 40,000 mulberry trees have been planted within a radius of 30 miles around San Diego. The total planting in the county, Mr. Jones says, has been about 600,000 since January 1st. Local nurseries have shipped 100,000 seedling orange trees to Riverside during this period. From next year, on the effect of the very extensive planting, will be felt in heavy exportations of both green and dried fruit, and in the establishment of several canneries. The total acreage in this county put to fruit trees this year for the first time is about 9000 acres.

**TWENTY-SECOND DISTRICT FAIR.**—San Diegoan, June 5: The directors of the district association met yesterday. A vote was taken, and it was decided to hold the fair in San Diego, on the 29th and 30th of September and the 1st, 2d and 3d of October, five days in all.

## San Joaquin.

**GRASSHOPPERS ON THE WARP.**—Stockton *Independent*, June 5: Frank Madden's orchard which is on the line of the narrow gauge railroad, between Lodi and Valley Spring, has been attacked by the Egyptian insects, and from 30 to 40 trees on the rim of his reservation have been eaten by them. C. C. Moore says that when four or five miles east of Bala-lota he ran into an army of grasshoppers. They are young yet and are just beginning to hop, but the warmth of these summer days will cause them to develop rapidly. Those he saw are about a half an inch long. The ground as far as he could see was covered with them. So far they have not approached nearer than five

miles to the orchard of the Moores. They are southeast of that place. Several men are engaged there in putting out arsenic, which has been recommended by the State Board of Horticulture as an agent with which to fight the grasshoppers. About 160 acres are set out with fine olive trees in the Moores' orchard. Many of the trees are of a fine imported variety and are in blossom. Mr. Madden has 160 acres in his orchard, and the greater part of that area is planted with trees. He says there are millions of grasshoppers in the foothills. He has already set out a great deal of arsenic on shrubbery under the trees. Dead grasshoppers load the shrubbery, but the relief thus given is, he says, very slight. There are so many of the sprightly insects that unless the ground were all covered over with arsenic it would be impossible to effectually fight them. There is no method by which their progress can be checked. They eat up everything green that they find, even stripping the trees of their bark. He thinks that the foothills will be bare of chaparral before the grasshoppers appease their appetite, and, of course, everything in their path will also suffer. Mr. Moore said that the path which they cover is two miles wide, and Mr. Madden said he had been informed that they extended from Biggs to Fresno. The grasshoppers at Mr. Madden's place have not reached their full development yet, and the plague that they will cause in this neighborhood has only begun. It is supposed, he said, that the eggs from which these grasshoppers were hatched have been lying in or on the ground since six years ago, when grasshoppers last ravaged fields and orchards in this State, and that peculiar climatic conditions this year brought them into active existence.

## Santa Barbara.

**FRUIT CROP.**—S. B. Star: The members of the Santa Barbara Co. Horticultural Society reported that of apricots and peaches a heavy yield was to be expected and walnuts fair; apples were late and pears plenty, while the plum crop is a failure. For Santa Barbara Mr. Hamer reported that the prospect for Bartlett pears was good, while that of other fruits was poor. The prune crop all over the State is a failure. The members report that the recent high winds have damaged the fruit crop considerably. It was brought to the notice of the society that prunes, cherries and plums do not do well in the Carpinteria valley, and that few varieties of apples are a success.

## Santa Clara.

**A NEW INDUSTRY.**—Rachael Todd in Los Gatos *Mail*: "The making of rosewater has been in operation since the 23d of April under the direction of Mrs. Whittell of San Francisco. Mrs. Whittell thoroughly understands the cologne business, having gone to France for the express purpose of learning it. The rose grown at the garden for practical purposes is a mild European rose called the May rose. It is more fragrant, smaller and less double, but in other respects resembles the old Mission rose so long cultivated in the State of California. Ten thousand plants were imported from France a year ago and of that number all but ten are now bearing a fine crop of roses. The petals of 100 of these roses are required to make a pound and from 60 to 70 pounds are being gathered daily. If the plants continue bearing through June and July the yield of rose-water will be many hundreds of gallons. As they have been grown without irrigation the result is awaited. It will doubtless be favorable as the non-irrigated roses of this locality bloom throughout said months. In France the harvest of the May rose is begun and completed during the month of May, a fact from which its name is derived. Mrs. Whittell pronounces the surrounding country a fine rose growing section and anticipates in the future the purchase of her neighbors' rose crops for distilling purposes. The cologne garden comprises 16 acres. Three acres are planted to oranges, rose geranium and a variety of French acacia. We understand that this is the first and only enterprise of the sort in the State of California."

**HAY AND FRUIT CROPS.**—Cor. Mercury: Andrew Young, the foreman of the Miner orchard, near Milliken's Corners, states that the fruit crop would be exceedingly heavy this year. He stated that orchardists in his neighborhood have been compelled to engage a number of hands to pick considerable of the green fruit, especially the peach and apricots, from the trees, so as to relieve the trees of their heavy strain. He further reported that last year's crop of hay was being eagerly sought for, but it is very scarce. In the fields between here and Agnew Station, and in the vicinity of Lawrence, the hay crop has been out and cocked, and will soon be ready for stacking. The hay-halers have already commenced overhauling and oiling their machines, as they expect a very busy season.

**FRUIT NOTES.**—S. J. Mercury, June 7: The shippers are handling cherries for the Eastern demand in large quantities, and this has had a tendency to lessen the supply for local consumption as well as canning. J. Z. Anderson has been shipping two carloads of cherries a day to various parts of the East, and reports the crop to be in excellent condition. Apricots appear to be the heaviest of any in the fruit line, and best judges claim that it will be the largest crop ever produced in this valley. The peach and pear crop is also large, but not in proportion to that of apricots. The reason for

this is that a number of apricot trees have not been bearing in previous years, but came into bearing this season.

## Santa Cruz.

**WATSONVILLE FRUIT CROP.**—The *Pajaronian*: From persons whose business has led them to examine most of the orchards of this township, we learn that the apple crop will not average over half a crop this year, and that the best yield is in the vicinity of Watsonville. The Newtown pippin and Bellflowers are especially light, but the Pearmain is a better crop. Early apples are a good crop. Apple orchards in the northern part of the valley are the lightest in setting. The prune crop will not average more than half of last year's yield. Apricots and peaches are heavy, and the yield promises to be the greatest ever produced in this valley. The apricot yield will be heavy all over the county. Pears are a much better crop here than usual, and Bartlett pears are said to be especially good. Cherries will average well, and the canning varieties are in demand by the San Jose canners.

## Siakiyou.

**IRRIGATION DISTRICTS.**—Yreka *Journal*: Farmers in Big Shasta Valley between Edgewood and Yreka, are taking much interest in the matter of organizing an irrigation district, for the purpose of building a ditch or ditches to be supplied from Shasta River, at or somewhere near the Tyler ranch, with a view also of increasing the water supply by tapping lakes and other streams at head of Shasta River. They expect to be able to secure a steady supply of at least 10,000 inches, which will be the means of opening up a vast extent of territory for the production of grain and fruit. Irrigation in Shasta Valley is a matter of urgent necessity for the prosperity of the farmers, and can be supplied by district organization so as to furnish water all the way down to the ranches south of Yreka, between Greenhorn and Orr's, as well as in the main Shasta Valley further south. On the east side of Shasta River, between Montague and Little Shasta, the land owners are also taking up the matter of organizing a district to join with the farmers on the west side, if possible, to secure sufficient water from Shasta River, or else make an effort to build a large ditch from Klamath River, which will probably prove most expensive, though certain to afford any amount of water required. A ditch from Klamath River would supply a vast extent of country destitute of water privileges, and render valuable some of the finest prairie land to be found in the State, capable of producing grain and fruit in abundance.

## Solano.

**"BASSFORD'S SEEDLING" CHERRY.**—Vacaville *Reporter*: H. A. Bassford has struck a bonanza in the shape of a new cherry called "Bassford's Seedling," which has fruited for the first time this season. The cherries are as large as plums. Mr. B. has 300 three-year-old trees, and they are all full. This is a valuable acquisition to the cherry family, as it is an early bearer, other varieties being barren until the sixth and seventh years. The new cherry has the flavor of the Black Tartarian and the color of the Royal Ann.

**LARGER SHIPMENTS OF CHERRIES.**—Dixon *Tribune*: Fourteen carloads of fruit, principally cherries, were shipped from Vacaville during the month of May. The shipments last year for the same month amounted to only five cars.

## Sonoma.

**ACRES IN GRAIN.**—Dixon *Tribune*: Assessor Schirmer furnishes the following statistics concerning the acreage of standing grain in the townships in which he personally made the assessment:

Township.	Wheat.	Barley.
Silverville.....	21,130	6,567
Tremont.....	8,513	4,724
Maine Prairie.....	3,435	6,817
Rio Vista.....	9,180	1,423
Elmira.....	6,780	3,221
Vacaville.....	745	815
Benicia.....	483	305
Totals.....	52,281	23,572

## Sonoma.

**THE MUST CONDENSER.**—Healdsburg *Tribune*: It is generally reported at Geyserville, and upon good authority, that the must condenser has recently changed hands, and that it will be run this season upon a larger scale than ever before. It is said that two more large steam boilers are to be put in to furnish power for extra machinery, and the buildings are also to be improved to facilitate the handling of grapes.

**ENCOURAGING TO FRUIT-GROWERS.**—Sebastopol *Times*: A few weeks since the Sonoma County Fruit Shipping Union was organized in Santa Rosa, and even at this early date fruit-raisers are reaping benefits therefrom. In conversation with Mr. John Merritt of Petaluma we learned that the Union, in getting up a carload of cherries for shipment East, offered for the different varieties of cherries now ripe, 3, 4 and 5 cents, and upon that came representatives of the city canneries and offered one cent advance on the same, and some of them, in opposition to the Union, bought whole orchards of cherries at the raiser's own price. Now that facilities for shipping are broadening, fruit will prove much more profitable than heretofore. There has ever been an Eastern market for our green fruits, and that market has been made accessible by the continued efforts of the California Shipping Union, and the benefits derived from their successful efforts

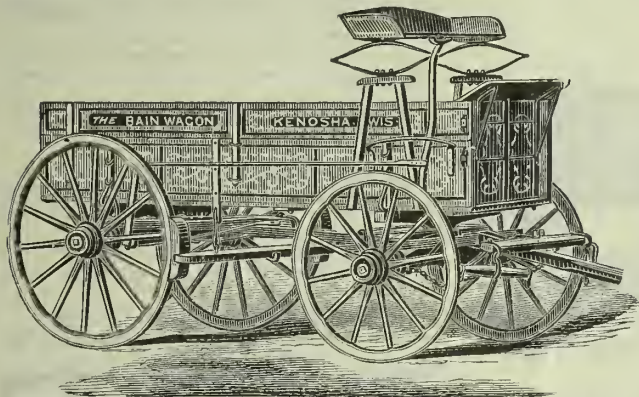
(Continued on page 581)



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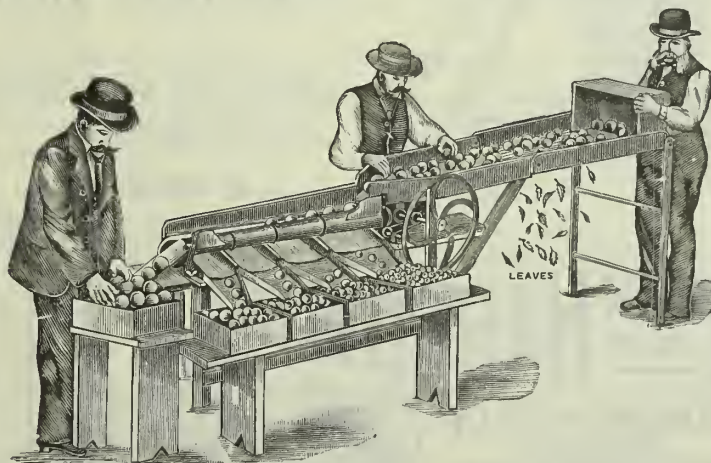
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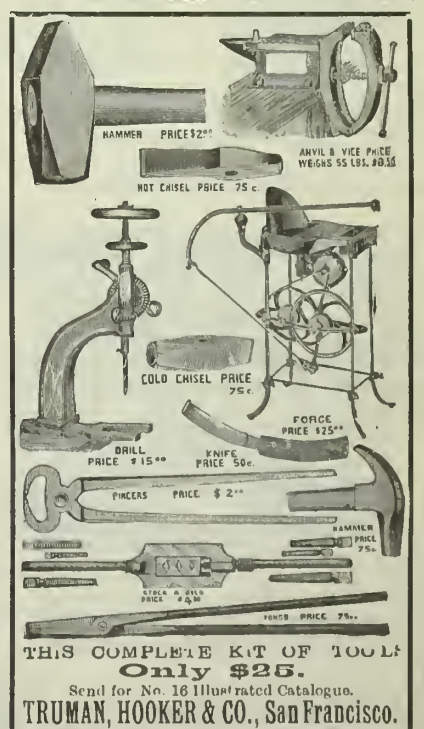
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## The State Fair.

We can but remind our readers that an important matter in connection with the State Fair at Sacramento is the liberal premiums offered now as farm produce premiums. There is no doubt these individual premiums will be an incentive to farmers all over the State to join in making their county exhibits, and have their products in the county exhibit for a premium, and also an individual premium "for the most extensive and varied exhibit of farm produce grown by one person or firm;" first premium, \$350.00, second, \$150.00. It is hoped that liberal premiums offered for farm produce will induce producers throughout the State to take advantage of it, and make this Fair notable in the lines of farm produce, uniting the products of the State with the blooded stock of the State. The management has this year decided upon a new feature, and that is to increase the race meeting from nine to eleven days, six trotting and five running. The increase from a nine-days' to an eleven-days' meeting will be watched with much interest. Purse and stakes aggregating nearly \$50,000 will be offered in that time.

There seems to be a wide disposition to make the State Fair to be held this year one of the most successful in the history of our State. The extra appropriation made by the last Legislature, and the liberal premiums offered the counties and individuals for farm exhibits, meet with wide commendation. A RURAL reporter called on Secretary Edwin F. Smith, last week, and learned that there had been more applications by exhibitors up to date, than for any previous year.

He noticed a full force of men working on the pavilion, renovating and putting it in shape for the coming fair. In anticipation of a large following this year, the Board of Directors have concluded to make several additional improvements, and the prospective success will warrant some additional attractions for those who wish to spend a holiday at the coming fair.

A box of Ayer's Pills has saved many a fit of sickness. When a remedy does not happen to be within reach, people are liable to neglect slight ailments, and, of course, if serious illness follows they have to suffer the consequences. "A stitch in time saves nine."

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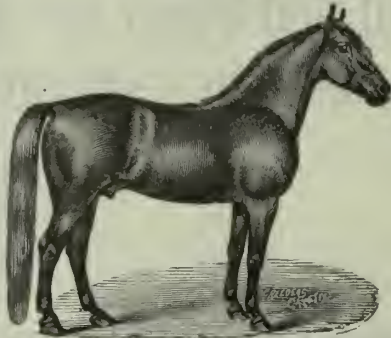
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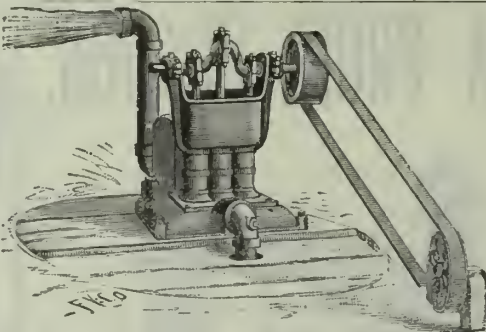
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## Agricultural Notes.

(Continued from page 578.)

are to be shared alike by all fruit-growers, who have been confined mainly to local markets or canneries for the sale of their fruits.

## Tulare.

**HOW TO REDEEM ALKALI LAND**—Traver Advocate: A Tulare rancher took equal parts of white alkali crust, and gypsum thoroughly mixed, put it in a box and planted alfalfa seed in the solution; the result was, the seed sprouted and grew plants six feet high. This certainly proves beyond a doubt that gypsum will redeem alkali land, if it is only applied, and if some of the owners of alkali land around Traver would expend a few dollars in this way they could place their land in a condition where they could realize from \$100 to \$150 per acre for it, whereas they now cannot sell it for \$25 an acre. There is no land in the State that will produce more to the acre than this alkali land when once reclaimed.

**IMPROVED GRAIN CROP**—Visalia Register, June 5: Harry Wallace has 1200 acres of wheat and 160 acres of barley, all of which is fair to look upon. It is a good crop. There is much good grain out northwest. These cool days have been especially favorable, and the yield bids fair to exceed early estimates by several notches. Where there was nothing is hay, and where there was hay will be grain.

**THE FIRST CARLOAD OF WHEAT RECEIVED AT STOCKTON**—Mail, June 3: J. D. Peters yesterday received from Huron, Tulare county, the first carload of this season's wheat—that is to say, the first carload sent to this city; a carload went to San Francisco some time ago. The harvest was exceptionally early. Mr. Peters paid \$1.65 per cental for the shipment.

## Ventura.

**VENTURA CO. NOTES**—Most crops, especially on the Sespe river, are fairly good; indeed, I hear of no complaints among farmers. Early barley was out several weeks ago. The most of it is haled or stacked. Late barley is not out; it looks green and thrifty, owing to our having much cool, foggy weather. Some of the early barley was very heavy, and nearly all that I have seen, early and late, is quite free from foul stuff. It will make excellent hay. Very little is being left to trash. I can see from my door many little patches of barley here and there far up in the mountains, some of them almost to the very tops. Fruit, so far as I have seen or heard, will be good—grapes set full and apricots in abundance. There were, and are still, being set out many orange, prune and other fruit trees on the Sespe, where there is abundance of water for irrigation. From the railroad bridge one can look up the river for miles and see almost continuous orchards not yet generally come into bearing. Potatoes, of which there is a considerable acreage, will be a good crop this year, so also of onions.—S. P. SNOW, Salicoy.

## Yolo.

**EARLY PEACHES**—Woodland Democrat: G. W. Hinckley, of Winters, shipped the first peaches of the season to Chicago. Mr. Hinckley is proprietor of the "Sky High" ranch that sits high up on the range of mountains that divides the Sacramento from Pleasant Valley. A few years since not ten men in the State would have given \$25 for the whole of Mr. Hinckley's ranch, but now the "Sky High" ranch is probably better known in the East than any other one farm in California.

**A NEW APRICOT**—Winters Express, June 6: J. P. Steward brought us a sample of some apricots propagated by him, which we have named "Steward's Seedlings." They are a fine specimen of this variety of fruit; ripen earlier, and are rather larger than the Royal, and as shapely and handsome in appearance. Mr. Steward has three trees of this variety from which he intends to bud and graft as many more as possible this season. J. Vandebor showed us some Royal apricots, one day this week, from J. C. Cradwick's orchard in the western part of town, which measured six inches in circumference each way.

## NEVADA.

**LARGE SHIPMENT OF CATTLE**—Silver State, May 23: We understand that Wm. Dunphy has made arrangements for the transportation of 400 cars of cattle, or some over 8000 head, from a point in Arizona to Argenta station. Mr. Dunphy is one of the leading stockmen of our State, and we are glad to see him showing such energy and enterprise, and we feel confident that the future will prove that he is using the best of business judgment in restocking his range in such an extensive manner.

## EUREKA!

We have it! The "Complete Horse Book" tells all about the Horse and Buggy. We got it for 10 cents in stamps from Pioneer Buggy Company, Columbus, Ohio.

## Complimentary Samples.

Persons receiving this paper marked are requested to examine its contents, terms of subscription, and give it their own patronage, and as far as practicable, aid in circulating the journal, and making its value more widely known to others, and extending its influence in the cause it faithfully serves. Subscription, paid in advance, 5 mos, \$1; 10 mos, \$2; 15 mos, \$3. Extra copies mailed for 10 cents, if ordered soon enough. If already a subscriber, please show the paper to others.

## List of U. S. Patents for Pacific Coast Inventors.

Reported by Dewey &amp; Co., Pioneer Patent Solicitors for Pacific Coast.

WEEK ENDING JUNE 2, 1891.

- 453,557.—LOGGING TRUCK—Frink & Readman, Seattle, Wash.  
453,338.—RUDDER FOR BOATS—P. E. Frostad, La Conner, Wash.  
453,354.—NON-HEAT CONDUCTING COMPOSITION—H. M. Hammore, Santa Cruz, Cal.  
453,475.—SHOE FOR DEFORMED FEET—L. D. Harding, Colfax, Wash.  
453,306.—MECHANICAL LEDGER—J. A. Langstroth, S. F.  
453,263.—PADLOCK—G. W. Lucas, Tucson, A. T.  
453,204.—TIRE TIGHTENER—M. J. McKinnon, Salem, Or.  
453,246.—GAS ENGINES—E. I. Nichols, S. F.  
453,293.—RAISIN AND FIG PRESS—Jas. Porteous, Fresno, Cal.  
453,378.—CABLE CLAMPING DEVICE—G. W. Rowley, Taylor, Or.  
453,295.—TANNING COMPOSITION—J. T. Smith, S. F.  
453,517.—CABLE GRIP—Stetson, Hammond, Holman & Harris, S. F.  
453,518.—CAR COUPLING—E. Stewart, San Diego, Cal.

The following brief list, by telegraph, for June 9 will appear more complete upon receipt of mail addresses:

California—San Francisco, James Addison, tool for cutting holes and washers; August Kempley, safety check-rein hook; Arthur E. Shattuck, adding machine; William H. Vance, shutter for fire grates. Pasadena, Edward A. Cochran, pendulum bar treadle. San Jose, Joseph H. Flickinger and L. F. Graham, fruit-slicer or cutter. Rosamond, David Rankin, door-checks. Oregon—Portland, Chas. Phelan and H. Eldridge, device for steaming and bleaching fruit; Edward Hennetty, bag-holder. Latourell Falls, W. J. Arner and T. J. Connaughton, plumb and level.

**NOTE**—Copies of U. S. and Foreign patents furnished by Dewey & Co., in the shortest time possible (by mail or telegraphic order). American and Foreign patents obtained, and general patent business for Pacific Coast Inventors transacted with perfect security, at reasonable rates, and in the shortest possible time.

## Auction Sales of California Fruit.

CHICAGO, June 4.—One carload of California fruit sold at following prices: Black Tartarian cherries, \$1.25@1.70; Royal Anne, \$2.30; Black Big-gereau, \$1.55.

CHICAGO, June 8.—One carload of California fruit sold as follows: Cherries, Royal Anne, brought \$1.25@1.80; Tartarian, \$1.25@1.40; Royal apricots, \$2.15@2.25; Pringle, boxes, \$1.50@1.80; Alexander peaches, \$2.50. Some small and slacker packed fruit brought lower prices. Three carloads sold as follows: Seedling apricots brought \$1.85@2.50; Royal apricots, \$2.30; Pringle apricots, small and poor, 95c@1.35; Royal Anne cherries, \$1.25@2; Black Tartarians, \$1.30@1.45; peaches, \$1.25@2.75.

CHICAGO, June 9.—To-day one carload of California fruit sold as follows: Black Republican cherries brought \$1.30@1.65; Royal Anne, \$1.30@1.60; Biggereau, \$1.60; Seedling apricots, \$2.15; Pringle, \$1.10@1.35. The fruit was mostly over-ripe. Some small fruit sold at lower prices. Apricots in cherry boxes are not wanted. Two carloads sold as follows: Black Tartarian cherries, \$1.15@1.75; Royal Anne, \$1.50@1.65; Seedling apricots, \$1.95@2.15; Royal, \$2.20; Pringle, \$1.15@1.30; peaches, very green, \$1@2.45; Cherry plum, \$1.15@1.30.

## Carbolineum Avenarius, A Wood Preserver.

For ages, the inventive minds of the entire world have been exerting themselves to discover a practical remedy to prevent the rotting of timbers, and numerous so-called wood preservers have been brought out and tested, but all without any satisfactory results. In the year of 1870 to 1875, Mr. Avenarius of Germany made a series of tests with compound distilled oils, and in the year of 1875, he accomplished what had been a complete failure up to that time, that is, he discovered what has been known over all foreign countries since that time, and for the last six years in the United States as the invaluable wood preserver, "Carbolineum Avenarius."

Carbolineum Avenarius is a compound oil stain, which can be applied to the wood with an ordinary paint brush, and which by its strong penetrating power and specific gravity of 1.14 impregnates the wood to a remarkable degree at once.

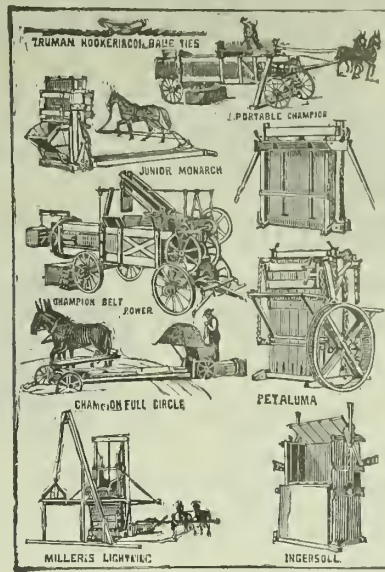
It has been proven by the highest authorities in the world, that since the discovery of C. A. not a piece of wood, that had been treated with this compound, had been taken out of the ground or water in a decayed condition.

The U. S. and foreign Governments as well as practical farmers, merchants, mechanics, manufacturers, railroad and other corporations, have adopted the application of C. A., and no one should fail to use the same very freely on all timber exposed to moisture, such as sills, joists, floors, fence posts, sheds, roofs, etc.

Messrs. Muecke & Co., 319 California street, San Francisco, Cal., are the Pacific Coast agents for this valuable article, and they will be pleased to correspond with all who wish to receive fuller information, sample packages, etc., price lists and testimonials.

**SUGAR MACHINERY**—Another installment of German machinery for the Chino sugar factory has arrived. The building is nearly completed, and the machinery is being rapidly put in position.

Sarsaparilla belongs to the smilax family of plants, and is found very generally over the American continent; but the variety that is richest in medicinal properties is the Honduras root, of which the famous Ayer's Sarsaparilla is made.



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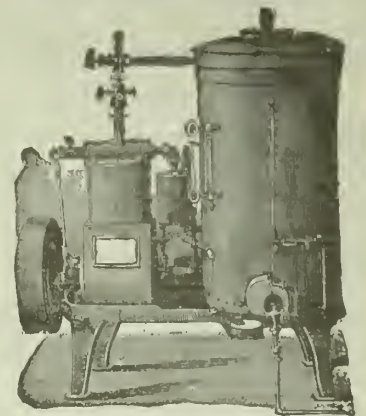
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Italian Queens, \$2.50 each; Black Queens, \$1 each. Swarms from \$2.50 each; Quaker, \$1. Comb Foundation, \$1.25 per pound; V-groove Sections, \$4 per 1000. Comb Honey wholesale and retail; Hives, etc. W. TYAN & SON, The Homestead Apiary, San Mateo, Cal.

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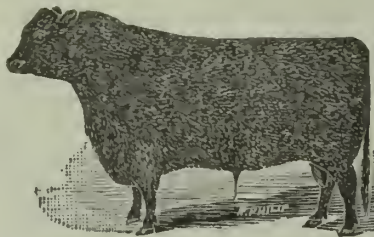


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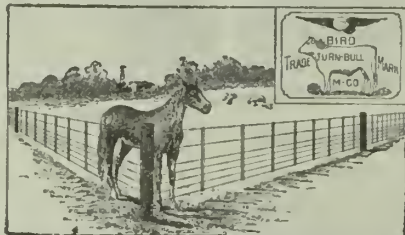
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Board, \$10 to \$14 per Week.

Strawberries in abundance, fresh from our own  
grounds, from May 1st. A large Swimming Pond will be  
completed early in June.

ROUTE FROM SAN FRANCISCO. — Take morning  
train to Calistoga, Napa Co., Cal. Take stage to Middle-  
town, fare \$2.00, and private team to Anderson Springs,  
fare \$1.00. Fare to Anderson's from San Francisco, \$5.30.  
Express and P. O. Address: Middletown, Lake Co.,  
Cal. J. ANDERSON, Proprietor.

FOR SALE!

PINOLITA OLIVE RANCH!!!

FORTY-SIX ACRES OF HILL LAND

In the Town of Auburn, Placer Co.

Red soil, superimposed upon upturned, friable, de-  
composing slate, yielding iron and alumina, thus fur-  
nishing a soil which, as Prof. Hildgard said after his anal-  
ysis, will retain moisture, will not require irrigation,  
and will not allow the vegetable mold to leech away;  
thus suited to the growth of fruit trees, especially the  
olive, as has been demonstrated both by the remarkable  
growth of the tree and the quality of oil.

It is situated only 15 minutes walk from Auburn  
Station—the C. P. R. R. passes along one side—and is a  
less distance from the Court House. Thirty a res im-  
proved and planted to olives, set at long distances for  
permanent growth, and other fruits planted between the  
rows for temporary profits, mostly peaches of three best  
varieties, ripening in succession; prunes, mostly Petite;  
plums of several varieties, as Kelsey, Japan, Shropshire  
Damon, etc.; figs of several best varieties; a few apples,  
nectarines, blackberries, etc. Two acres of table an-  
rains grapes, never irrigated, the vines remarkably  
vigorous and in full bearing. The trees, especially the  
1500 olive, have all been planted with regard to perma-  
nency. About one-half of them have an orchard growth  
of seven years; fruited last year 300 pounds, this year  
nearly one ton. They are mostly Mission and Picholine,  
with a few trees of other choice varieties. Two crops of  
the olives have been pressed. The yield has been, for  
the first press, 14 per cent of very clear delicious table  
oil, and four per cent from the second press—the Picho-  
line yielding this, of a peculiarly clear, nutty oil.

There is on the ranch a few acres of grain sown for  
hay; two acres of well-set alfalfa, below the Auburn  
ditch, which crosses one corner of the property; also a  
small house of four rooms and a kitchen; a well of good  
water; a small barn; a strong, permanent spring of soft,  
cold water, which wells up through the slate; a two-inch  
iron pipe connects the spring with an iron-bound 20 000  
gallon tank, situated on a beautiful pine clad hill 40 feet  
above the spring, a point which overlooks the town and  
gives very charming distant views, and is one of the  
most lovely sites for a residence to be found. The water  
is pumped to the tank by a duplex pump; the power, a  
four-horse steam engine, which furnishes power sufficient  
to pump, saw wood, run an olive crusher and do all  
needed shop work.

The land is all suited to fruit, excepting along a rocky  
ridge, which furnishes three very desirable residence  
sites, and the olive, set promiscuously, thrives finely  
among the rocks. The property can be conveniently  
divided along a sag which separates two of the high  
knobs, and water from the spring can be pumped to each  
of them.

This desirable property is now offered for sale for less  
than the improvements cost. The land is fenced, the  
title good and unencumbered. It is connected by a  
roadway, which is one of the improvements made, with  
one of the principal streets of Auburn.

The sale will convey the entire plant, furniture in  
the house, all utensils, etc. If sold before April 1st the sale  
will include the coming crop. If later, the crop will be  
reserved, unless otherwise by special agreement. If de-  
sired, one-half the purchase money can remain five  
years, secured by mortgage at eight per cent. For price  
and any further information desired, address

A. H. AGARD,

No. 1259 Alice Street, - - Oakland, Cal.



## THE KRIEBEL ENGINE

And Plain Vertical Boiler.  
Mounted on a Combined Base.  
A very Cheap and Economical  
Engine.

Made of the very best material.  
2 & 8 HORSEPOWER.

Write for Prices.

TRUMAN, HOOKER & CO.,  
SAN FRANCISCO.

## BEST TREE WASH.

"Greenbank" 98 degrees POWDERED CAUSTIC  
SODA (tests 99.3-10 per cent) recommended by the  
highest authorities in the State. Also Common Caustic  
Soda and Potash, etc., for sale by

T. W. JACKSON & CO.,  
Manufacturers' Agents,  
104 Market St. and 8 California St., S. F.

## MANILLA ROOFING

FOR FAY'S WATER-PROOF  
Manilla Roofing, Siding, Ceiling,  
Sheathing, &c., send 2c for illustrated  
Catalogues and Samples. J. F.  
WYMAN, General Agent for Pacific  
Coast, 304 Market St., San Francisco.

# THE GIANT POWDER COMPANY.

PATENT OWNERS OF

NOBEL'S DYNAMITE,  
NOBEL'S EXPLOSIVE GELATINE,  
NOBEL'S GELATINE-DYNAMITE,  
Best and Strongest Explosives in the World.

As other makers IMITATE our Giant Powder, so do they Judson, by Manufacturing  
a second-grade, inferior to Judson.

BANDMANN, NIELSEN & CO. General Agents, San Francisco.

## JUDSON POWDER,

The Only Reliable and Efficient Powder  
For Stump and Bank Blasting. From 5 to 20  
pounds blows any Stump, Tree or Root clear  
out of ground at less cost than grubbing.  
Railroaders and Farmers use no other.

## Yes! GOOD TIME COMING

Yes!  
Yes!  
Yes!

FOR FARMERS! FOR EVERYBODY!

We intend to stand up for the bread-winners of all classes. Not for one  
class or for one association or organization, but for the  
whole community of producers.

GONE  
TO  
PIECES

TABLE PEACHES, very fine, per doz.	\$2.10,	\$2.25
TABLE PLUMS, " " "	1.40,	1.50
TABLE GRAPES, " " "	1.35,	1.50
TABLE BARTLETT PEARS, " " "	2.10,	2.25
TABLE FRUIT, assorted, all kinds.	1.75,	1.85
PIE FRUIT, assorted, per doz.	1.00,	1.25

DOWN! DOWN!! DOWN THEY GO.

ORDER BY THE CAN, DOZEN, CASE OR CARLOAD.

EVERYBODY AT SMITH'S CASH STORE, 416-418 FRONT ST. SAN FRANCISCO.  
TREATED ALIKE

## MERY'S IMPROVED PIONEER BARLEY CRUSHER

— USING —

The Benoit Corrugated Rollers.

STILL AT THE FRONT.



This Mill has been in use on this Coast for 10 years,  
TAKEN THE PREMIUM AT THE STATE FAIR

Four years in succession, and has met with general favor,  
there now being

Over 250 of them in use in California, Nevada and Oregon.

It is the most economical and durable Feed Mill in use.

I am sole manufacturer of the Corrugated Roller Mill. The Mills are all  
ready to mount on wagons.

GRAINLAND, BUTTE CO., CAL., June 9, 1887.

Mr. M. L. MERY—Dear Sir: We have used one No. 2  
Roller Barley Crusher now for eight years and have used  
it steady during that time; have crushed 45 tons a day  
and the Crusher is as good to-day as when it came out of  
your shop. I am satisfied that it is the best mill made.  
You may reconstruct this testimonial to the best advan-  
tage for you and sign our names, for you cannot over-  
rate the merits of your mill.

F. E. REAM,  
JNO. P. SUTTON.

DURHAM, May 21, 1887.

Mr. M. L. MERY—Dear Sir: In reply to yours of the  
19th, would say that I crushed from two to two and a  
half tons per hour, but could crush three and a half tons  
if my elevators were large enough to carry the barley  
from the machine. The No. 1 machine I used at Gridley  
was run on a sack a minute, but if we got behind we  
could run through five tons an hour and do good work.  
The machine I use here is a No. 2. Yours,  
WM. M. TAYLOR.

I thank the public for their kind patronage received thus far, and hope for a continuance of the same.

M. L. MERY, Chico Iron Works, Chico, Cal.

## GRANGERS' BUSINESS ASSOCIATION, SHIPPING AND COMMISSION HOUSE.

OFFICE, 108 DAVIS STREET, SAN FRANCISCO, CAL

Warehouse and Wharf at Port Costa.

CONSIGNMENTS OF GRAIN, WOOL, AND ALL KINDS OF PRODUCE SOLICITED.

Money advanced on Grain in Store at lowest possible rates of interest.

Full Cargoes of Wheat furnished Shippers at short notice.

ALSO ORDERS FOR GRAIN BAGS, Agricultural Implements, Wagons, Groceries  
and Merchandise of every description solicited.

E. VAN EVERY, Manager.

A. M. BELT, Assistant Manager.

ENDLESS

## GANDY THRESHER BELTS.

BEST IN THE WORLD.

FRENCH & LINFORTH, 35 Beale St., San Francisco,  
SOLE AGENTS PACIFIC COAST.

DEWEY & CO. { 220 MARKET ST., S. F. } PATENT AGENTS.  
Elevator, 12 Front.

## Commission Merchants.

## WETMORE BROTHERS, Commission Merchants.

GREEN AND DRIED FRUIT, NUTS,  
PRODUCE, POULTRY, EGGS,  
HIDES, PELTS, ETC.

CONSIGNMENTS SOLICITED. PROMPT RETURNS  
413 415 & 417 Washington St.,  
(P. O. Box 2099.) SAN FRANCISCO.

## MOORE, FERGUSON & CO., WOOL, GRAIN, FLOUR

—AND—

General Commission Merchants,  
810 California St., S. F.

Members of the San Francisco Produce Exchange  
Personal attention given to Sales and Liberal Ad-  
vances made on Consignments at low rates of interest.

## DALTON BROS., Commission Merchants

—AND DEALERS IN—

CALIFORNIA AND OREGON PRODUCE,

Green and Dried Fruits,  
Grain, Wool, Hides, Beans and Potatoes.  
Advances made on Consignments.

308 & 310 Davis St., San Francisco  
(P. O. Box 1938.)

Consignments Solicited.

## ALLISON, GRAY & CO.

501, 503, 505, 507 & 509 Front St.,  
And 300 Washington St., SAN FRANCISCO.

GENERAL

COMMISSION MERCHANTS  
GREEN AND DRIED FRUITS,  
POULTRY, EGGS, GAME, GRAIN, PRODUCE  
AND WOOL.

(ESTABLISHED 1854.)

## GEORGE MORROW & CO., HAY and GRAIN

COMMISSION MERCHANTS,

89 Clay Street and 28 Commercial Street  
SAN FRANCISCO, CAL.

SHIPPING ORDERS A SPECIALTY.

## E. P. FELLOWS & CO. COMMISSION MERCHANTS

316 Davis St., San Francisco.

Consignments Solicited of  
GREEN AND DRIED FRUIT, POULTRY, EGGS,  
POTATOES, BEANS, HONEY, ETC., ETC  
Prompt Returns.

EUGENE J. GREGORY. (Established 1852.) FRANK GREGORY.

## GREGORY BROTHERS CO., Commission Merchants, PACKERS AND SHIPPERS OF

CALIFORNIA FRUIT AND PRODUCE.  
126 and 128 J St., - Sacramento, Cal.  
San Francisco Office, 313 Davis St.

## EVELETH & NASH, COMMISSION MERCHANTS

And Dealers in Fruit, Produce, Poultry, Game, Eggs,  
Hides, Pelts, Tallow, etc., 422 Front St., and 221, 223,  
225 and 227 Washington St., San Francisco.

## WITTLAND & FREDRICKSON, Commission Merchants.

All Kinds of Green and Dried Fruits,  
Consignments Solicited. 324 Davis St., S. F.

## Go to American Exchange Hotel.



The above Hotel is situated in the mid-t of the Bank-  
ing and Commercial houses of the city, and is by far the  
most home-like and desirable Hotel to stop at.

CHAS. & WM. MONTGOMERY, Prop'rs.

ENGRAVING—SUPERIOR WOOD AND  
Metal Engraving, Electrotyping and Stereotyping  
done at the office of this paper.

Rates \$1, \$1.25 and \$1.50  
Per Day. Free Coach.



## S. H. MARKET REPORT

## Market Review.

## DOMESTIC PRODUCE, ETC.

SAN FRANCISCO, June 10, 1891.

The cutting of hay, curing and baling are making satisfactory progress. About all the fields have been cut. The harvesting of barley is under full headway in all directions, and that of wheat has begun in several sections. The yield averages much larger to the acre than was expected the forepart of May; the improvement was brought about by cooler weather. Seasonable fruits are being marketed at good prices. The money market is generally easy with no great stringency looked for even during the most urgent time for funds to market the grain crop. The wheat market at the East and also abroad has fluctuated, being influenced by the weather abroad and also shipments from supply markets. The following is to-day's cablegram:

LIVERPOOL, June 10. — Wheat — Inactive. California spot lots, 8s 5d; off coast; 44s; just shipped, 44s 3d; nearly due, 44s 2d; cargoes off coast, quiet; on passage, quiet but steady; Wheat and flour in Paris, steady; French country markets, firm; weather in England, rather warmer.

## Liverpool Wheat Market.

The following are the closing prices paid for wheat options per cwt. for the past week:

	June.	July.	Aug.	Sept.	Oct.	Nov.
Thursday.....	88 1/2	88 1/2	88 1/2	88 1/2	88 1/2	88 1/2
Friday.....	88 1/2	88 1/2	88 1/2	88 1/2	88 1/2	88 1/2
Saturday.....	88 1/2	88 1/2	88 1/2	88 1/2	88 1/2	88 1/2
Monday.....	88 1/2	88 1/2	88 1/2	88 1/2	88 1/2	88 1/2
Tuesday.....	88 1/2	88 1/2	88 1/2	88 1/2	88 1/2	88 1/2

The following are the prices for California cargoes for off coast, nearly due and prompt shipments for the past week:

	O. C.	P. S.	N. D.	Market.
Thursday.....	44 3/4	44 3/4	44 3/4	Quiet.
Friday.....	44 3/4	44 3/4	44 3/4	Quiet but steady.
Saturday.....	44 3/4	44 3/4	44 3/4	Firm.
Monday.....	44 3/4	44 3/4	44 3/4	Steady.
Tuesday.....	44 3/4	44 3/4	44 3/4	Steady.

## Eastern Grain Markets.

The following shows the closing prices of wheat at New York for the past week, per cental:

	Day.	June.	July.	Aug.	Sept.	Dec.	Jan.
Thursday.....	18 1/2	17 3/4	17 3/4	17 3/4	17 3/4	17 3/4	17 3/4
Friday.....	17 3/4	17 3/4	17 3/4	17 3/4	17 3/4	17 3/4	17 3/4
Saturday.....	17 3/4	17 3/4	17 3/4	17 3/4	17 3/4	17 3/4	17 3/4
Monday.....	17 3/4	17 3/4	17 3/4	17 3/4	17 3/4	17 3/4	17 3/4
Tuesday.....	17 3/4	17 3/4	17 3/4	17 3/4	17 3/4	17 3/4	17 3/4

The closing prices for wheat have been as follows at Chicago for the past week, per cental:

	Day.	June.	July.	Sept.	Dec.
Thursday.....	16 1/2	16 1/2	16 1/2	16 1/2	16 1/2
Friday.....	16 1/2	16 1/2	16 1/2	16 1/2	16 1/2
Saturday.....	16 1/2	16 1/2	16 1/2	16 1/2	16 1/2
Monday.....	16 1/2	16 1/2	16 1/2	16 1/2	16 1/2
Tuesday.....	16 1/2	16 1/2	16 1/2	16 1/2	16 1/2

NEW YORK, June 10. — Wheat — 98 1/2c for July, 94 1/2c for August, 91 1/2c for September, 88 1/2c for October, 85 1/2c for December, and 81 1/2c for May.

CHICAGO, June 10. — Wheat — 98 1/2c for July, 94 1/2c for September and 91 1/2c for December.

## Visible Supply of Grain.

NEW YORK, June 8. — The visible supply of grain in store and afloat, as compiled by the New York Produce Exchange, is as follows: Wheat, 16,477,000 bushels, a decrease of 1,015,000 bushels; corn, 5,607,000 bushels, an increase of 453,000; oats, 4,549,000 bushels, an increase of 306,000; barley, 300,005 bushels, a decrease of 30,000.

## Foreign Grain Review.

LONDON, June 8. — The Mark Lane Express, in its review for the past week says: There is a moderate supply of English Wheat, the average quotations being 40s 5d. Foreign Wickets were depressed and several were 6d lower. Heavy shipments are on passage—estimated at 3,000,000 quarters—and this keeps the market weak. California, prompt shipment, is quoted at 44s 6d; new American Winter was speculated in at 40s for August shipment. Barley declined 6d, maize and oats 9d each. At to-day's market English wheats were dull at 6d decline, Foreign reds were also 6d lower, while prices of whites were maintained. Flour declined 6d.

## The Dried Fruit Trade.

NEW YORK, June 5. — The supply of evaporated California peaches and apricots in first hands is down to very narrow dimensions. One commission firm, in a position to know, asserts that New York, Philadelphia and Boston have not over five car loads, all told, out-side of jobbers' hands; the peaches remaining in commission merchants' hands consist chiefly of bagged fruit, the better grade, and 10 1/2c @ 11c is considered a close value. At the present time the holdings of apricots are of boxed fruit, a fine quality, for which 13 1/2c @ 14c is asked. Odd lots of prunes are offered at rather low prices, and there is some pressure to work small-sized raisins off at the lowest prices of the season. Several parcels of 2-crown stock have been sold at 90c @ \$1 box this week, and there is still some offering at inside figures. Choice 3-crown loose fairly hold their own. Layers are not doing relatively as well.

## Hop Crop.

NEW YORK, June 9. — Letters from Oneida Co., N. Y., state that hop lice and fly are found to a large extent in that section. Reports from Madison and adjoining counties note the presence of the pest in considerable quantities there. London cables report the weather wet and cold in England and the appearance of more fly and lice on the hoppers. One firm has a cable reporting the appearance of lice in Bohemia.

## Local Markets.

BAGS — Under a stronger demand, the market for standard-sized band-sewed is firmer at 7 1/2c @ 7 3/4c.

BARLEY — New barley is in order now. Receipts and pressing sales are causing buyers to bid down. In futures, trading is light. The following are the sales reported on to-days Call:

Morning Session: Seller 1891—100 tons, \$1.06 1/2; 300, \$1.06 1/2; 100, \$1.06 1/2. Buyer 1891, after August 1st—200 tons, \$1.14 1/2; 300, \$1.14 1/2; 100, \$1.14 1/2. Afternoon Session: Seller 1891—200 tons, \$1.06 1/2; 300, \$1.06 1/2; 100, \$1.06 1/2. Buyer 1891, after August 1st—200 tons, \$1.13 1/2.

BUTTER — Notwithstanding receipts continue exceptionally large, the market holds fairly strong.

Eastern creameries are sending in small supplies, which have a depressing influence on the market.

CHEESE — The market is still in buyer's favor. The East continues to send small supplies.

EGGS — The market shows signs of weakening, due to free receipts from the East, and the warmer weather forcing more selling.

FLOUR — The market is steady at current quotations.

WHEAT — The local sample market is weak, that is, buyers talk lower prices, but at the same time they cannot buy until new begins to move. In futures, trading continues light. The following are the sales reported on to-day's Call:

Morning Session: Buyer 1891—100 tons, \$1.68 1/2; 300, \$1.68 1/2; 100, \$1.68 1/2. Buyer 1891, after August 1st—200 tons, \$1.63 1/2; 300, \$1.63 1/2; 100, \$1.63 1/2. Afternoon Session: Seller 1891—300 tons, \$1.56 1/2; 100, \$1.56 1/2; 100, \$1.56 1/2. Buyer 1891, after August 1st—200 tons, \$1.63 1/2; 300, \$1.63 1/2; 100, \$1.63 1/2.

	Buyer	Seller	Buyer	Seller
	1891.	1891.	Season.	1891.
Thursday.....	167 1/2	173 1/2	159 1/2	159 1/2
Friday.....	167 1/2	173 1/2	159 1/2	159 1/2
Saturday.....	167 1/2	173 1/2	159 1/2	159 1/2
Monday.....	167 1/2	173 1/2	159 1/2	159 1/2
Tuesday.....	167 1/2	173 1/2	159 1/2	159 1/2

	Buyer	Seller	Buyer	Seller
	Season.	1891.	Season.	1891.
Thursday.....	110 1/2	110 1/2	112 1/2	112 1/2
Friday.....	109 1/2	109 1/2	111 1/2	111 1/2
Saturday.....	109 1/2	109 1/2	111 1/2	111 1/2
Monday.....	109 1/2	109 1/2	111 1/2	111 1/2
Tuesday.....	109 1/2	109 1/2	111 1/2	111 1/2

\*After August. †After July. ‡After August.

## Market Information.

## Produce Receipts.

Receipts of produce at this port for the week ending June 9, were as follows:

Flour, gr. sks.....	52,136	Middlings, sks.....	2,462
Wheat, cts.....	312,649	Alfalfa, ".....	200
Barley, ".....	12,410	Chicory, bbls.....	200
Rye, ".....	3,317	Broomcorn bbls.....	27
Oats, ".....	12,278	Hops, bbls.....	27
Corn, ".....	13,866	Wool, ".....	1,859
*Butter.....	1,638	Hay, tons.....	2,270
do bxs.....	662	Straw, ".....	87
do bbls.....	136	Wine, gals.....	258,780
do kegs.....	136	Brandy, ".....	1,520
do tubs.....	258	Raisins, bxs.....	650
do 1/2 bxs.....	1,193	Honey, cs.....	111
†Cheese, cts.....	1,193	Walnuts, sks.....	111
do bxs.....	51	Flaxseed, ".....	111
Eggs, doz.....	38,910	Mustard, ".....	111
do " Eastern.....	67,900	Almonds, ".....	111
Beans, cts.....	1,486	Peanuts, ".....	111
Potatoes, sks.....	16,174	Popcorn, ".....	111
Onions, ".....	3,688	Beet sugar, bbls.....	111
Bran, ".....	6,578	do do sks.....	111
Buckwheat, ".....	337	Overland 337 cts.	242 cts.

## Cereals.

The local wheat market has ruled fairly steady throughout the week. Supplies are extremely light, causing buyers to bid up at times, so as to have their wants met. Harvesting is only under way in the more favored localities. With next month it will be general. The late cool weather brought out the berry to perfection. Present crop advices promise a larger surplus for export and of a better general average quality than for years. The Oregon Weather Bureau in its report June 6 gives the following: Western Oregon—The weather conditions have been exceedingly favorable to cereals, causing the prospects for harvest to be extraordinarily good. General reports indicate the hay crop to be unusually heavy; wheat and oats to be in better condition than for many years, if ever better at this season. For Eastern Oregon the report is as follows: General crop prospects were never better, at this season of the year, than they are at present throughout this section. Farmers are jubilant. The rains were copious, timely and very beneficial. New life and vigor has been imparted by the rain to all vegetation. The hot winds of two weeks ago did some damage, but it has been more than recompensed by the benefit the rain has been to winter and especially spring wheat. "I have never seen a more promising prospect for crops," writes a correspondent from Morrow county, and similar reports are received from every county. Crickets are doing some damage in Malheur county.

The barley market has held fairly strong throughout the week. The supply of old is virtually exhausted. Our advices report farmers busy harvesting. In some localities they are making deliveries. The crop averages unusually heavy to the acre, notwithstanding many sections report a light yield. The cool weather did much in bringing about the more favorable result. The grain will be plump. Although the crop will be all of 50, and perhaps 75 per cent greater than was that of 1890, yet it will go into consumption owing to exhausted supplies of old and the increased requirements.

Oats have held fairly steady, although there are signs of a weaker tone toward the close. The crop this year will be larger than it was in 1890. Oregon advices report good crop prospects, but the acreage does not show any increase. The stock of old is very light.

Corn has shaded off slightly. The extreme figures to which holders sent prices caused buyers to be offish, and they also shut off many export orders. Crop advices are favorable.

This year the consignment of new crop barley arrived in San Francisco on Saturday morning. It was of good quality and the samples shown on "Change attracted much attention. It was shipped by J. C. Kirkpatrick of the Sharon estate in Fresno county. Last year the first carload of new barley came from Los Banos, Merced county, and for the previous three years from Dixon. New barley was received at Elmira about the 1st of June.

## Feedstuff.

Ground feed is in good demand, with an advance obtainable far bran and middlings.

Hay is coming in freely, yet the market cleans up well without much shading in prices. The grade this year averages better than at any time for several seasons past. Although the quantity cut is all of

50 per cent more than was harvested and cured in 1890, yet it is claimed by well-informed parties that the supply will not equal the demand. Oregon will have a larger crop than last year, but up there as here, there is an increasing consumption.

## First Receipts of New Crop Barley.

The first receipts of new crop barley and prices received since 1870 are as follows:

Year.	Month.	Price.	Year.	Month.	Price.
1870.....	June 19.....	\$1.20	1881.....	June 21.....	90
1871.....	June 12.....	\$1.57 1/2	1882.....	June 12.....	1.65
1872.....	June 6.....	1.40	1883.....	June 25.....	95
1873.....	June 5.....	1.10	1884.....	June 28.....	90
1874.....	June 9.....	1.45	1885.....	June 16.....	1.25
1875.....	June 20.....	1.35	1886.....	May 26.....	1.25
1876.....	May 30.....	90	1887.....	June 3.....	1.15
1877.....	June 30.....	1.55	1888.....	June 5.....	92 1/2
1878.....	June 11.....	80	1889.....	June 1.....	75
1879.....	June 30.....	75	1890.....	May 31.....	1.06 1/2
1880.....	June 24.....	64 1/2	1891.....	June 6.....	1.42 1/2

\*Auction off in Produce Exchange hall. Market price about \$1.20 per cental.

## Live-stock.

The market does not present any new features. The consumptive demand is light, as it usually is during the fruit and vegetable season. There is no denying that butchers and stockmen are firmly convinced in their own mind that it is only a question of a short time when prices for bullocks will rule higher. For mutton sheep and hogs the market holds strong at full prices. For medium-sized work horses there is still a good demand.

The market for dressed cattle is quoted as follows: To obtain the price on foot, take off from the price for stall-fed one-third to one-half, according to the nature of the feed and time fed; and for grass-fed take off the price from 40 to 60 per cent.

HOGS — On foot, light grain fed, 5 1/2c @ 5 3/4c lb.; dressed, — @ — c lb.; heavy, 5 @ 5 1/2c lb.; BEEF — Stall fed, 6 1/2c @ 7 lb.; grass fed, extra, 6 @ — c lb.; first quality, 5 1/2c @ — c lb.; second quality 5 @ — c lb.; third quality, 4 @ — c lb.; bulls and thin cows, 2 @ 3c lb.

VEAL — Small, 6 @ 7 1/2c lb.; large, 5 @ 6 1/2c.

MUTTON — Wethers, 7 1/2c @ 8c lb.; ewes, 7 @ 7 1/2c lb.; spring lamb, 7 1/2c @ 9c lb.

## Fruits.

Persons who have claimed that the production of fruit in this State is being overdone should begin to "hedge," for although the crop this year, of all kinds, is larger than ever before known, yet orchardists are getting good prices. Cherries have done unusually well, while other fruits promise good returns. The quality this year promises to average better than it did in 1890. Canners, dryers and Eastern buyers are strong competitors for good to extra choice fruits.

In citrus fruits the market shows a strong tone for good to choice oranges suitable for keeping or shipping. The most of oranges sent here now are poor keepers, which compel forced sales. Lemons and limes are firm.

Contracts for raisins in the sweat are being made at from 4 @ 5 1/2c. The vineyards are reported to be looking exceedingly well.

There is a more pronounced inquiry for new-crop dried fruits, but we are not advised regarding buyers' bids. It is quite probable that they are as heretofore less than paid. The Eastern and Pacific Coast markets are well cleaned up, and the new crop will come on a bare market.

In berries, the market is reported strong. Raspberries are in better supply. Blackberries are making a better showing. There is a large crop of wild blackberries this year. Strawberries are in light supply. Currants are scarce and promise to be high. Canners have contracted quite freely for this year's crop. In tree fruit, peaches pears and apples make a poor showing. Apricots are improving in quality and increasing in receipts.

The Oregon Weather Bureau reports the crop prospects on June 6, in Western Oregon as follows: The cool weather and rains have not been favorable to the strawberry crop, which is now ripening and berries plentiful. Stone fruits will not be an average, especially in the Willamette valley. The warmth in January, the cool spring and frosts, which at the time were not supposed to have done much damage, did really do great damage. Fruit is falling off, some trees dying. Cherries and prunes are especially injured. Cherries are beginning to ripen. Better reports in regard to the fruit is received from portions of Douglas and from Josephine, Jackson and Curry counties. Vineyards are unusually thrifty; clusters are forming.

## Vegetables.

The weather has continued favorable for garden vegetation. The market is well supplied with seasonable truck and at reasonable prices.

Green corn is coming in fairly free, and meets with a good demand. Peas are being taken by canners. Cucumbers and tomatoes are lower, as is all garden truck that has been selling at early season prices.

Onions are essentially unchanged. Receipts coming in show a gradual improvement in their keeping quality.

New potatoes rule the market. The quantity coming in is quite large, while the quality is improving. Free shipments overland are still in order, which helps to relieve our market. The crop this year is the largest on record.

## Miscellaneous.

The poultry market shows a stronger tone for well-conditioned hens, roosters and young stock, but geese, ducks and turkeys are slow.

The hop market is stronger, with slightly higher bids made for new crop. Quotations given out for new crop ranges from 18c to 20c. Growers are watching with unusual interest crop advices received from the East and also from Europe.

Beans are slow. The stock of old is well cleaned up. The new crop promises to be unusually large.

The wool market does not show any material change. Our advices indicate a large demand for goods which ought to help wool.

From reliable advices up to June 10, the following summary of tonnage movement is compiled:

	1891.	1890.
On the way to		
San Francisco.....	340,091	240,065
San Diego.....	23,160	14,898
San Pedro.....	14,840	10,911
Oregon.....	28,476	23,197
Puget Sound.....	25,205	29,509
Totals.....	431,772	318,580

In port at		
San Francisco, disengaged.....	10,177	4,616
" " engaged for wheat.....	28,759	23,680
" " for new crop.....	16,312	.....
San Diego.....	2,581	.....
San Pedro.....	2,009	12,344
Columbia River.....	10,596	.....
Puget Sound.....	.....	.....

Totals..... 70,434 40,640

To get the carrying capacity, add 65 per cent to the registered tons as given above.

From July 1, 1890, to June 4, 1891, the following are the exports from this port: 1891. 1890.

Wheat, cts.....	13,060,620	13,081,734
Flour, bbls.....	1,107,433	1,060,250
Barley.....	257,365	949,284

## Domestic Produce.

Extra choice in good packages fetch an advance on top quotations, while very poor grades sell less than the lower quotations. WEDNESDAY, June 10, 1891.

BEANS AND PEAS.			NUTS—JOBBER.		
Bay Cal. ....	3 15	@ 3 35	Walnut, Cal. B.	7 1/2	@ 9
Butter .....	2 70	@ 3 05	do Obce.	9	@ 10
Pea .....	3 00	@ 3 30	do paper shell.	9	@
Red .....	2 50	@ 2 75	do Chilli.	9	@
Pink .....	2 20	@ 2 40	Almonds, hd shl.	15	@
Small White .....	2 25	@ 3 10	Softshell .....	15	@
Almonds .....	3 25	@ 3 35	Paper shell .....	15	@
Fid Pea, bbls .....	70	@ 80	B. Walnut .....	15	@
do green .....	1 50	@ 2 50	Pecans small .....	12	@
do Eastern do .....	2 50	@ 3 00	do large .....	15	@
do Niles .....	1 65	@ 1 75	Peanuts .....	4	@
Split .....	145	@ 160	Filberts .....	10	@
Obce Extra No 100	40	@ 45	Hickory .....	7	@
Fast to Crack .....	70	@ 85	Almonds .....	15	@
			Pine Nuts .....	3	@



PACIFIC COAST WEATHER FOR THE WEEK.

[Furnished for publication in this paper by officer in charge of branch signal office, Division of the Pacific.]

DATE.	Olympia.				Portland.				Eureka.				Red Bluff.				Sacramento.				S. Francisco.				Fresno.				Keeler.				Los Angeles.				San Diego.			
	W.	T.	F.	S.	Sa.	M.	Tu.	We.	Th.	Fr.	Sa.	Su.	Mo.	Tu.	We.	Th.	Fr.	Sa.	Su.	Mo.	Tu.	We.	Th.	Fr.	Sa.	Su.	Mo.	Tu.	We.	Th.	Fr.	Sa.	Su.							
June 2-June 9.	W.	T.	F.	S.	Sa.	M.	Tu.	We.	Th.	Fr.	Sa.	Su.	Mo.	Tu.	We.	Th.	Fr.	Sa.	Su.	Mo.	Tu.	We.	Th.	Fr.	Sa.	Su.	Mo.	Tu.	We.	Th.	Fr.	Sa.	Su.							
..	.00	.40	.16	.06	.02	.00	.00	.64	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00						
74	58	52	54	58	62	66	66	66	66	66	66	66	66	66	66	66	66	66	66	66	66	66	66	66	66	66	66	66	66	66	66	66	66							
W	S	SW	SW	S	W	Nw	Nw	Nw	Nw	Nw	Nw	Nw	Nw	Nw	Nw	Nw	Nw	Nw	Nw	Nw	Nw	Nw	Nw	Nw	Nw	Nw	Nw	Nw	Nw	Nw	Nw	Nw	Nw							
Cl	Rn.	Cy.	P C	P C	Cl	Cl	Cl	Cl	Cl	Cl	Cl	Cl	Cl	Cl	Cl	Cl	Cl	Cl	Cl	Cl	Cl	Cl	Cl	Cl	Cl	Cl	Cl	Cl	Cl	Cl	Cl	Cl	Cl							

EXPLANATION. Cl, for clear; Cy, cloudy; Fr, fair; Cm, calm; . indicates too small to measure. Temperature wind and weather at 5 P. M. (Pacific Standard time) with amount of rainfall in the preceding 24 hours. T indicates trace of rainfall. P C, partly cloudy. Rn., rain.

TO THE TRADE.

WRITE FOR PRICES OF THE SPLENDID SCARLET Cactus Dahlia "Juarez," White Cactus Dahlia "Constance," Double Dahlias, Yellow, and Red Cannas Ehemani and Fontan; also, Best French Canas. Plants grown by contract from the finest collection in the State. Send for Bulb and Seed Trade List. THEODOSIA B. SHEPHERD, Ventura, Cal.

SEED!! SEED!! ORANGES.

THE FIRST ARRIVAL THIS SEASON OF TAHITI! Oranges now due by "Courtney Ford." Those desirous of Choice Tahiti Orange Seed can obtain same from this cargo by communicating with the Importers, L. G. SREBOVICI & CO., San Francisco.

ENGRAVING - SUPERIOR WOOD AND Metal Engraving, Electrotyping and Stereotyping done at the office of this paper.



THE RELIABLE CYCLONE WINDMILL.

No story need be told of the Cyclone or of the number that have been sold. They can be seen working in every inhabited part of the Pacific Slope whilst hundreds are exported every year.

The Cyclone mill is not an experiment, but acknowledged by all who have used it to be the most powerful and durable mill on the market.

It is simple in construction, has no cogs or complicated gearing to get out of order. Has only three principal bearings, heavily habited boxes and self oiling apartments.

The wheel and vane of the Cyclone (which are the most durable parts of any solid wheel mill) are made strong and of well seasoned wood finished with the best lead and oil which neither blister in the sun nor is consumed by rust.

Send for Illustrated Catalogue to

Pacific Manufacturing Company,

575 MISSION ST., SAN FRANCISCO, CAL.

Manufacturers and Jobbers of Windmills, Pumps, Tanks, TUBULAR WELL TOOLS, Pipe, Fittings, Etc., Etc.

P. S.—These mills are not being rapidly taken down and replaced by others as is the case with certain all-metal mills.

CARBOLINEUM AVENARIUS.

[REGISTERED.]

Preservative Against Rotting, Decay, Fungus, Etc., of Wood & Stone. REMEDY AGAINST DAMP WALLS. PROOF AGAINST TEREDOES.

WHAT WE GUARANTEE CARBOLINEUM AVENARIUS TO DO:

1. To preserve any kind of Wood above or under ground of water, and prolong its life at least one hundred per cent.
2. To prevent moisture from penetrating into brick or stone walls and preserve them same as wood.
3. To keep off all sorts of Insects, Vermin, or other enemies of wood or objectionable and destructive agencies.
4. To prevent Rats and Mice gnawing wood coated with Carbolinenm Avenarius.
5. To disinfect barns, stables or residences and destroy Microbes.
6. To force all moisture out of the wood without closing the pores.
7. To prevent shingles coated with Carholineum from rotting, warping or cracking.
8. To prevent Rope treated with Carbolineum from rotting, causing it to remain pliable and excellent Tar Coating.
9. IMPORTANT!—Teredoes will not attack Timber coated with Carholineum Avenarius.
10. It does not contain any acids or other poisonous ingredients injurious to fibers of wood.
11. It is the cheapest and best Wood Preserver in the World.

All the above statements are facts, and all our testimonials to that effect are genuine and indisputable.

CARBOLINEUM WOOD-PRESERVING CO.,

MUECKE & CO., Pacific Coast Agents, 319 California St., San Francisco, Cal.

INSURE

YOUR DWELLING, BARNS and GRAIN

WITH THE



INSURANCE COMPANY

OF SAN FRANCISCO, CAL.

HONEST LOSSES PAID IN CASH.

JAPANESE INSECT DESTROYER

For the protection of Cabbage, Squash, Cucumbers, in fact all vegetation from destructive insects. Contains no poison. Price by mail 25c. Stamps accepted. Friend Medicine Co., Gresham, Neb.

THE JUDSON RABBIT-PROOF WIRE & PICKET FENCE.

ence colored RED by boiling in a chemical solution that preserves the wood. Address JUDSON MANUFACTURING COMPANY, 14 and 16 Fremont Street, San Francisco.

JONES' DECIDUOUS FRUIT GRADERS

AS IMPROVED FOR 1891.



THE OLD RELIABLE.

With the reputation that over 800 of my Fruit Assorters have established for themselves in 13 States, reaching from Connecticut to California, it is useless for me to say more in this than to describe my several styles and sizes, giving capacity and prices of each, and

A FEW REASONS WHY THEY ARE NOT ONLY THE BEST

— BUT ALSO —

THE CHEAPEST IN THE WORLD.

The machine known last year and the year before as my SMALL NO. 4, has two wooden rollers and two spaces for the fruit to roll down, makes four grades, and with it a man or woman and two good boys can with ease assort 1000 half-bushel baskets of peaches a day. With the assistance of another person, it will assort a greater quantity. In short it will grade double the quantity of any single space or single roller machine, and sells On board the cars in York, Pa., for.....\$38, or delivered in San Francisco for.....\$47 Which is much less than the price of any other two spaced or two roller machine in the State of California.

MY NO. 4 MACHINE has three spaces for the fruit to roll down, has steel rollers, improved spouting, makes four grades, will assort one-third more than any two space, and three times the quantity of any single space machine. Yet it sells In York, Pa., at.....\$50, or delivered in San Francisco at.....\$61 Which is only one dollar more than is asked for any two space or two roller machine in California outside of my own. This machine is a daisy. Keep in view its capacity and price given above.

MY NO. 5 MACHINE has four spaces for the fruit to roll down, makes five grades, will assort double the quantity of any two space and four times that of any single space machine. It is somewhat longer and narrower than my large No. 4 of last season (which it takes the place of), makes one more grade, has steel rollers, improved spouting, runs lighter (any lady can operate it), and for capacity and perfect work on various kinds of fruit, stands head and shoulders above all others on the market. Altogether it is JUST THE MACHINE CALIFORNIA HAS BEEN LOOKING FOR and sells In York at.....\$55, or delivered in San Francisco at.....\$66.50 Only \$8.50 more than any two spaced machine not my own, with but half its capacity.

All of the above machines assort small fruit such as apricots, prunes, plums, nectarines, limes, walnuts, grapes, gooseberries, cherries, etc., at 1/2-inch grade, and peaches at either 1/2 or 1/4 as desired. I never overrate the capacity of my machines, and have always won first premium wherever exhibited. To prevent disappointment in getting these machines, it is positively necessary that orders reach my agents or me personally at once. For circulars, with testimonials from leading fruit growers all over the land, address

MESSRS. G. G. WICKSON & CO.,

3 & 5 FRONT ST., SAN FRANCISCO, AND 346 N. MAIN ST., LOS ANGELES.

Agents for San Francisco and Los Angeles.

MESSRS. BARNETT BROS. & CO.,

Agents at SACRAMENTO, CAL.

Or JOHN A. JONES, Inventor and Manufacturer, 3 & 5 Front St., San Francisco, Cal.

My address after July 1st will be York, Pa.



THE LATEST AND BEST.

\$100.00 Reward!

If Browne's Exterminator Pat. Squirrel Fails to Kill.

SEND FOR CIRCULAR TO 314 & 316 S. Spring Street, Los Angeles, Cal.



BUSINESS CHANCE, FOR MAN OR WOMAN Address, C. E. ORCUTT, Orcutt, California.



## Animal Intelligence.

Animal Intelligence is quite as common and pronounced whether we observe it in the largest of the species or in the families of insects. The ant is proverbial for its intelligence. Even the loathsome spider is quite remarkable for the intelligence it sometimes exhibits. This insect is quite as susceptible of being tamed as any other species. A European semi-scientific journal, the *Month*, relates the following in regard to

## The Spider.

It is a well-known fact that spiders have power of discrimination, and are able to discriminate between friends and foes, approaching those whom they have found to be friendly, while avoiding strangers. One lady succeeded so well in taming spiders to recognize her, that they came down to her whenever she entered the room where they were kept. Dr. Moschken, of Leipzig, relates that in Oderwitz, where he lived for a time, he noticed one day in a rather dark corner of the ante-room a tolerably large spider's web, in which a well fed spider had made its home, and sat at the nest opening, early and late, watching for some flying or creeping food. He was accidentally several times a witness to the craft with which it caught its victim and rendered it harmless, and it soon became a regular duty to provide it with flies several times a day, which he let down before its door with a pair of pincers. At first this feeling seemed to arouse small confidence, the pincers, perhaps, being in fault, for it let many of the flies escape again, or only seized them when it knew they were within reach of its shade. After awhile, however, the spider came each time and took the flies out of the pincers and spun them over. The latter business was sometimes done so superficially, when flies were given quickly, one after the other, that some of the already envenomed flies found time and opportunity to escape. This game was carried on by him for some weeks, as it seemed curious. But one day, when the spider appeared ravenous, and regularly flew at each fly offered to it, he began teasing it; as soon as it had got hold of the insect, he pulled it back again with the pincers. It took this exceedingly ill the first time; however, as the fly was finally left with it, the indignant spider managed to forgive him, but, when later he took the fly quite away, their friendship was destroyed forever. On the following day it treated the offered flies with contempt, and would not move, and on the third day it had disappeared from its shade altogether.

## The Elephant.

Passing from one of the smallest orders of creation to the largest, we come to the elephant. The *London Spectator*, in one of its late issues, gives the following in regard to an elephant which could evidently count up to 20 and could not be cheated out of his count. One Arthur Clay sends the following to the above-named journal:

It was told me, he says, by Mr. Quay, at the time a non-commissioned officer of the First Battalion of the Sixtieth R. Regt., but now one of her Majesty's yeoman of the guard. In 1853 his regiment was marching from Peshawar to Kopnlyie, and was accompanied by a train of elephants. It was the duty of the mahout in charge of each elephant to prepare 20 chupatties, or flat cakes made of coarse flour, for his charge. When the 20 chupatties were ready they were placed before the elephant, who, during the process of counting, never attempted to touch one of them until the full number was completed. On the occasion related by Mr. Quay one of the elephants had seized the opportunity of his mahout's attention being attracted for a moment to steal and swallow one of the chupatties. When the mahout, having finished the preparation, began to count them out, he of course discovered the theft and presented his charge with 19 in place of the usual number. The elephant instantly appreciated the fact of there being one less than he had a right to expect, and refused to touch them, expressing his indignation by loud trumpeting. This brought the conductor of the elephant line (with whom Mr. Quay had been in conversation) to the scene. Having heard the explanation of the mahout, the conductor decided that he was in fault for not keeping a better lookout and ordered him to provide the twentieth cake at his own cost. When this was prepared and added to the pile, the elephant at once accepted and ate them.

## A USEFUL DYE.

Few people realize the amount of money saved by black dye. It will color over almost any shade, and makes the last wear of a good dress, cloak or suit fully as useful and handsome as the first. The simplest and most reliable black dyes are Diamond Dye Black for Wool, Fast Stocking Black (for Cotton), and Black for Silk and Feathers. Any one can use them.

Goo's dyed with Diamond Dyes can be washed with soap when necessary. The Blacks, Browns, Blues, and all the special cotton colors are brightened and improved by washing in soapsuds after dyeing. Of course, when delicate colors like purple, violet, and green have to be washed, the suds should be weak and lukewarm. Nothing equals Diamond Dyes for fastness and durable colors.

## ORANGE PLANTERS

Should read the advertisement of the Aloha Nurseries. The best varieties are offered at rates so low that no one need hesitate about planting for experiment, or for investment in places where the orange is known to thrive.

## WHEN THE HAIR

Shows signs of falling, begin at once the use of Ayer's Hair Vigor. This preparation strengthens the scalp, promotes the growth of new hair, restores the natural color to gray and faded hair, and renders it soft, pliant, and glossy.

"We have no hesitation in pronouncing Ayer's Hair Vigor unequalled for dressing the hair, and we do this after long experience in its use. This preparation preserves the hair, cures dandruff and all diseases of the scalp, makes rough and brittle hair soft and pliant, and prevents baldness. While it is not a dye, those who have used the Vigor say it will stimulate the roots and color-glands of faded, gray, light, and red hair changing the color to

## A Rich Brown

or even black. It will not soil the pillowcase nor a pocket-handkerchief, and is always agreeable. All the dirty, gummy hair preparations should be displaced at once by Ayer's Hair Vigor, and thousands who go around with heads looking like 'the fretful porcupine' should hurry to the nearest drug store and purchase a bottle of the Vigor."—*The Sunny South*, Atlanta, Ga.

"Ayer's Hair Vigor is excellent for the hair. It stimulates the growth, cures baldness, restores the natural color, cleanses the scalp, prevents dandruff, and is a good dressing. We know that Ayer's Hair Vigor differs from most hair tonics and similar preparations, it being perfectly harmless."—*From Economical Housekeeping*, by Eliza R. Parker.

## Ayer's Hair Vigor

PREPARED BY

DR. J. C. AYER & CO., Lowell, Mass.  
Sold by Druggists and Perfumers.

## How to Make Money

SURPRISING INDUCEMENTS OFFERED TO LADIES and Gentlemen to get up Clubs for our Celebrated

## TEAS, COFFEES &amp; SPICES.

Special terms to consumers. Catalogue mailed free on receipt of name and address.

## Great American Importing Tea Co.

52 to 58 Market St., San Francisco.

Agents wanted everywhere.



**HIRES**  
ROOT BEER  
THE GREAT HEALTH DRINK.  
Package makes 5 gallons.  
Delicious, sparkling, and  
appetizing. Sold by all  
dealers. FREE beautiful  
Picture Book and card  
sent to any one addressing  
C. E. HIRES & CO.,  
Philadelphia.

## To Exchange.

## A BEAUTIFUL VINEYARD HOMESTEAD.

For San Francisco, Oakland or Alameda property, 40 acres of good land one mile from St. Helena, Napa Co., on road to Rural Health Retreat; 16 acres in vines of best varieties, in full bearing, together with about 200 fruit trees; three acres of alfalfa; one acre of garden; remainder of land susceptible of cultivation, at present covered with timber; place well fenced and cross fenced. New two-story house of eight rooms and closets, hard finished. Good stone cellar under all, 43x23 feet, furnished with first-class cooperage, capacity 14,000 gallons, and all the implements for making wine. A stone dairy; large two-story barn (new), and all necessary farming implements; two wells of good water. A fine home. Price, \$8,000. Address "FARMER," at this office, or G. M., Box 52, St. Helena, Napa Co., Cal.

## PRICE'S HAY PRESSES FOR SALE.

Genuine Price Petaluma Press.  
Junior Monarch Hay Press.  
Hurricane (Size A) Hay Press.  
Wide West Hay Press.

— ADDRESS —

L. C. MOREHOUSE, San Leandro.

## HOME INDUSTRY.

If you buy

Mohr &amp; Yoerk's

## CANNED (COOKED) CORN BEEF

You will get the best and at the same time benefit the producer.

Also manufacturers of BONE DUST.

"DEAD LOCK" GOPHER TRAPS are best.  
Price 25c apiece  
or \$3 per doz. delivered. I. F. WHITE & SON, Pomona, Cal.

## TO SHIPPERS!

## California Ventilated Barrel

EXCELS ALL OTHERS!

IT IS LIGHTER, STRONGER, MORE DURABLE AND BETTER VENTILATED THAN ANY OTHER BARREL.

This engraving of the CALIFORNIA VENTILATED BARREL makes plain to the practical shipper its points of superiority over the common barrel, which may be enumerated as follows:

It weighs from five to seven pounds less than the ordinary barrel, making a material saving in freight charges.

It costs less than one-half for trimming, and does not require an experienced hand to cooper it.

It is Made of the Best Quality of Spruce, Woven Together with Copper Wire,

And can be furnished in any size desired.



It is the only thoroughly ventilated barrel made, a very important point.

The heads are warranted not to come out in transit, and no liners are required.

It is stronger and more durable than any other barrel.

Never varies in size, even to the extent of a quart.

— ALTOGETHER MAKING IT —

The Cheapest and Best Barrel on the Market.

THE CALIFORNIA BARREL IS ADAPTED TO SHIPPING THE FOLLOWING ARTICLES:

Apples,  
Oranges,  
Onions,  
Potatoes,Sweet Potatoes,  
Dried Meats,  
Bottled Goods,Glassware,  
Canned Meats,  
Crockery,Eggs,  
Poultry,  
Walnuts,  
Almonds,

And Vegetables of All Descriptions.

A factory making these barrels is now in operation in San Francisco, with a capacity of 4000 barrels a day. The success of the barrel is almost unprecedented, and it is bound to become the package in a very short time. EVERY ONE USING IT IS ENTHUSIASTIC IN ITS PRAISE. IT HASN'T A FAULT. When shipped in knock-down form, about 2500 barrels can be placed in a single car. Special rates given on car lots. WRITE FOR PRICES AND PARTICULARS.

## California Ventilated Barrel Co.,

No. 403 MARKET STREET, - - - SAN FRANCISCO, CAL.

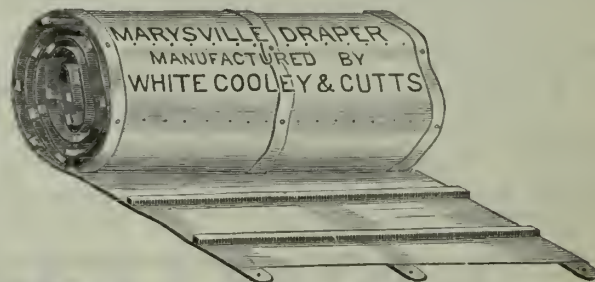
FACTORY: N. W. Cor. Powell and North Point Streets.

## DRAPERS, GRAIN CARRIERS, AND STRAW CARRIERS,

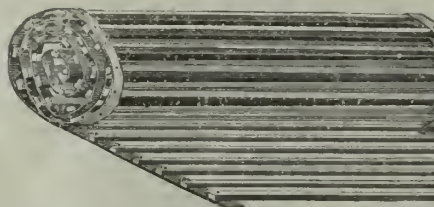
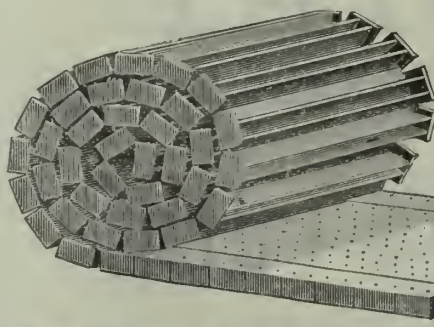
For Headers, Threshers and Combined Harvesters.

We have manufactured the MARYSVILLE DRAPER for 15 years, and our trade extends all over the Pacific Coast.

Excellence of workmanship and the use of the best materials are appreciated by farmers, as indicated by our large and growing trade.



Encouraged by the great success of our draper trade, we have begun the manufacture of GRAIN and STRAW CARRIERS, and feel confident that the same attention to detail and careful management, if applied to these goods, will soon place them in the same high position as our drapers.



THE BEST

— IS —

The Cheapest

LOW PRICE

— IS —

NO TEST OF

CHEAPNESS.

FOR SALE BY THE

Principal  
Agricultural  
Dealers

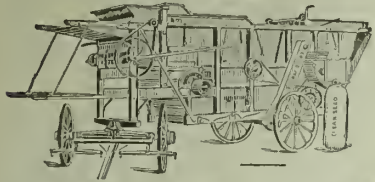
ON THE COAST.

## WHITE, COOLEY &amp; CUTTS,

34, 36, 38 D STREET, - - - - - MARYSVILLE, CAL.



## THE BIRDSSELL ALFALFA

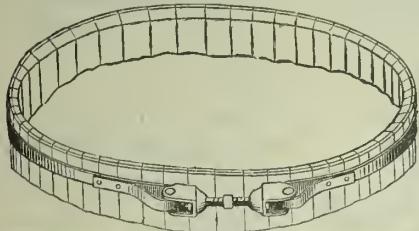


## HULLER

Thrashes, Hulls and Cleans ALFALFA Seed, and delivers it in the sack ready for market.

It gets ALL THE SEED OUT of the Straw, and SAVES IT. and is the only Machine on earth that does. Send for full description and price to

**BIRDSSELL MFG. CO.**  
SOUTH BEND, IND.



## BAND COUPLING.

Malleable Iron. All Sizes.

These Couplings are the best in the world, most powerful and cheapest. They have a ball and socket joint, right and left screw and work freely. We use them extensively in our Tank Building Department.

**WELLS, RUSSELL & CO.,**

Mechanics' Mills, Cor. Mission & Fremont Sts., S. F.



ASK YOUR GROCER FOR IT.

## CANE MILLS.

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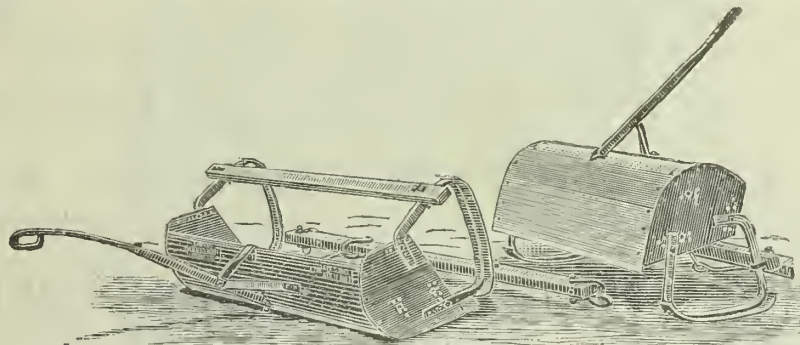
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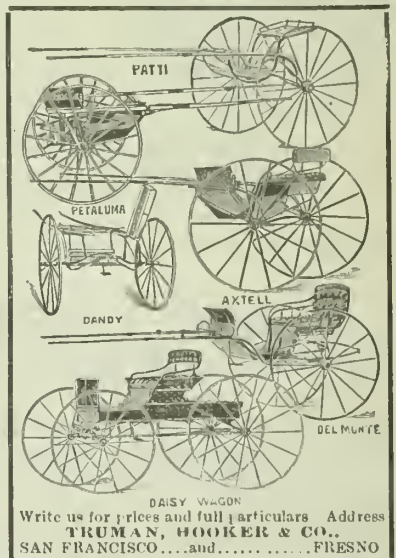
OF CALIFORNIA,  
SAN FRANCISCO, CAL.  
Incorporated April, 1874.



Authorized Capital.....\$1,000,000  
Capital paid up and Reserve Fund 800,000  
Dividends paid to Stockholders... 675,000

OFFICERS.

A. D. LOGAN.....President  
I. C. STEELE.....Vice-President  
ALBERT MONTPELLIER.....Cashier and Manager  
FRANK McMULLEN.....Secretary  
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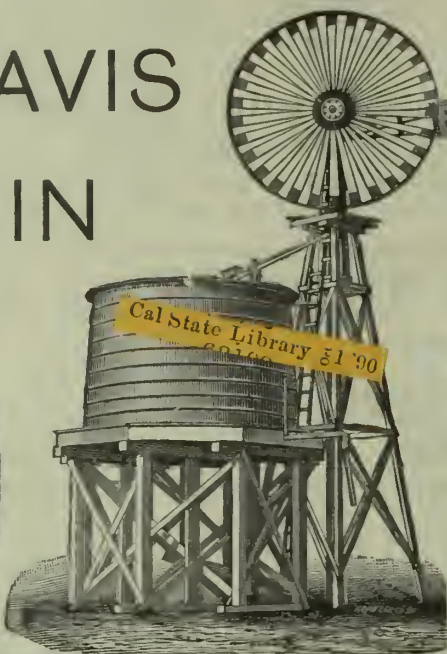
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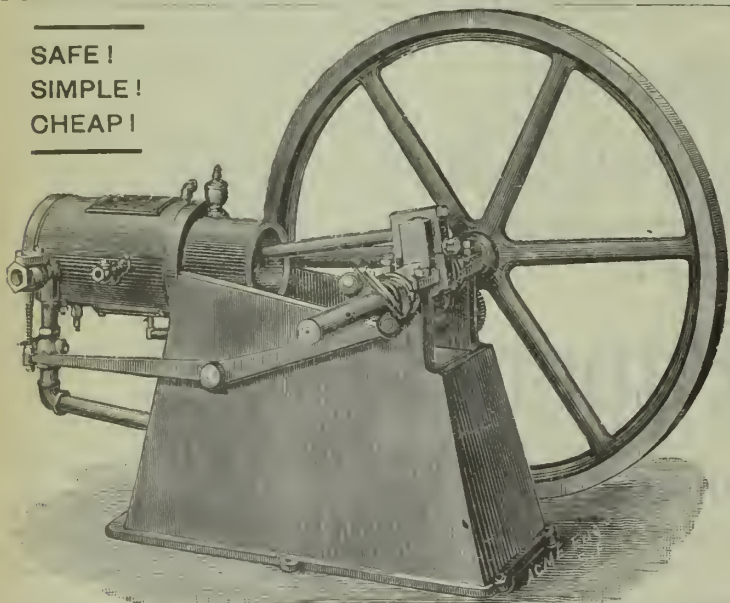
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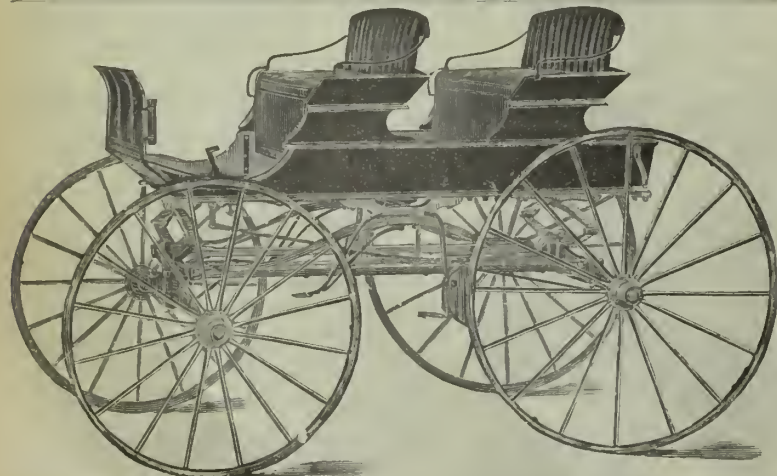
REGAN VAPOR ENGINE Co.—Gentlemen: The 4 H. P. Vapor Engine I bought of you last May has been in constant use ever since, and has given me entire satisfaction. I have found the engine to be all that you claimed for it, and more too. You can use my name for reference if you so desire. I am, yours truly,  
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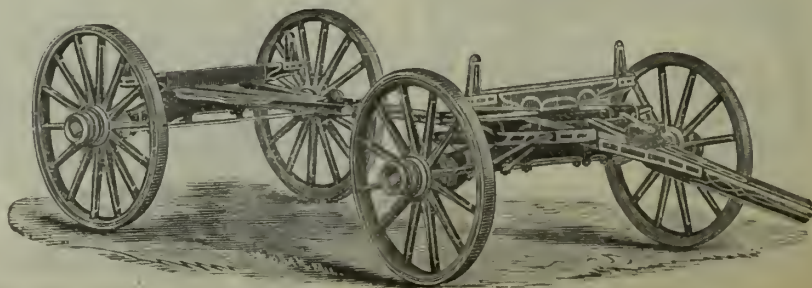
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STEEL AXLE HEADER TRUCKS.





Vol. XLI.—No. 25.

SAN FRANCISCO, SATURDAY, JUNE 20, 1891.

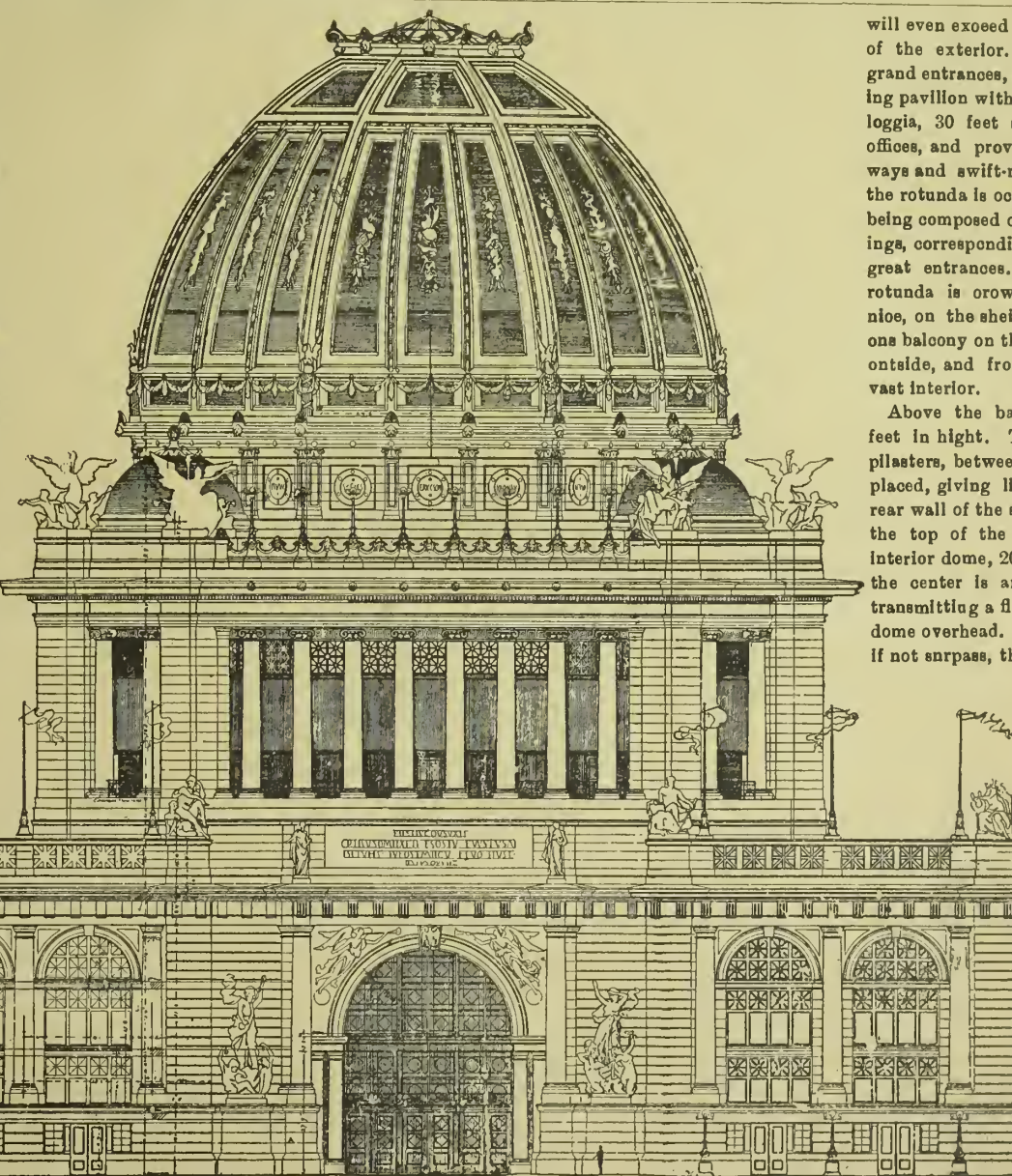
{ DEWEY & CO., Publishers,  
Office, 220 Market St.

### Buildings for the Columbian Exposition.

All reports speak of great activity on the grounds at Chicago which will be devoted to the great World's Columbian Exposition of 1893. It is expected that in many respects this will be the grandest World's Fair ever held as would befit the effort of the greatest nation in celebrating one of the greatest events of history—the discovery of the New World by Columbus 400 years ago. It is our plan to keep our readers well informed of the progress of preparations for this great industrial event and we begin with the display on this page of outline pictures from the architects drawings of two of the chief buildings. Other buildings, plans of grounds, etc., will be given from time to time as the work progresses, and in connection with the ground plan we will give facts concerning the site and its environment.

The imposing structure shown herewith is the Administration Building, which it is claimed will be the gem and crown of the Exposition structures. The first object which will attract visitors on reaching the grounds will be the gilded dome of this great building. It will cover an area of 250 feet square and consist of four pavilions 84 feet square, one at each of the four angles of the square of the plan and connected by a great central dome 120 feet in diameter and 220 feet in height, leaving at the center of each facade a recess 82 feet wide, within which will be one of the grand entrances to the building. The general design is in the style of the French renaissance, and it will be a dignified and beautiful specimen of architecture as befits its position and purpose among the various structures by which it will be surrounded. The first great story will be in the Doric order, of heroic proportions, surrounded by a lofty balustrade and having the great tiers of the angle of each pavilion crowned with sculpture. The second story, with its lofty and spacious colonnade, will be of the Ionic order.

Externally, the design may be divided in its height into three principal stages: The first stage consists of the four pavilions, corresponding in height with the various buildings grouped about it, which are about 65 feet high. The second stage, which is of the same height, is a



FRONT ELEVATION OF ADMINISTRATION BUILDING, COLUMBIAN EXPOSITION.

continuation of the central rotunda, 175 feet square, surrounded on all sides by an open colonnade of noble proportions, it being 20 feet wide and 40 feet high, with columns four feet in diameter. This colonnade is reached by staircases and is interrupted at the angles by corner pavilions, crowned with domes and groups of statuary. The third stage consists of the base of the great dome, 30 feet in height, and octagonal in form, and the dome itself, rising in graceful lines, richly ornamented with heav-

ily molded ribs and sculptural panels, and having a large skylight of glass to light the interior. At each angle of the octagonal base are large sculptured eagles, and among the springing lines are panels with rich garlands. This great dome will be gilded, and, asserting itself grandly at the end of the long vistas which open up in every direction across the lagoons, and between the neighboring palatial buildings, will form a fitting crown to the first and second stages.

The interior features of this great building

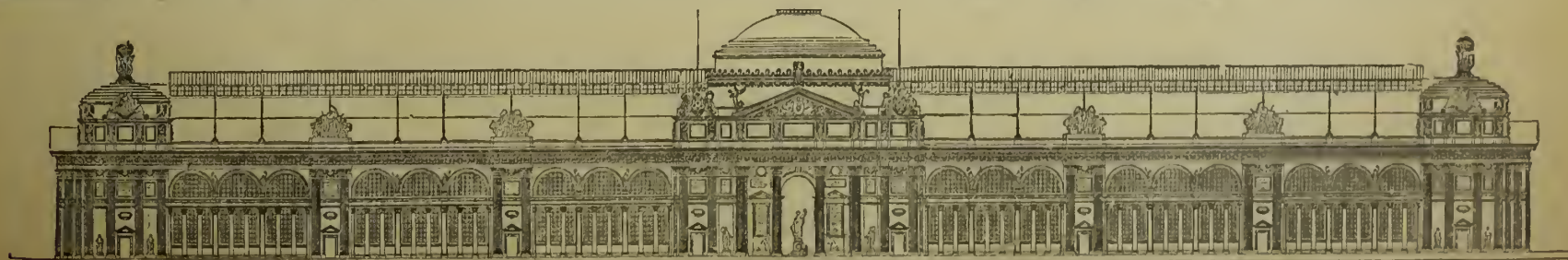
will even exceed in beauty and splendor those of the exterior. Between every two of the grand entrances, and connecting the intervening pavilion with the great rotunda, is a hall or loggia, 30 feet square, giving access to the offices, and provided with broad circular stairways and swift-running elevators. Internally, the rotunda is octagonal in form, the first story being composed of eight enormous arched openings, corresponding in size to the arches of the great entrances. The principal story of the rotunda is crowned with richly decorated cornice, on the shelving top of which is a continuous balcony on the same level as the colonnade outside, and from which can be viewed the vast interior.

Above the balcony is the second story, 50 feet in height. The walls are embellished with pilasters, between which a frieze of windows is placed, giving light to the rotunda from the rear wall of the surrounding colonnade. From the top of the cornice of this story rises the interior dome, 200 feet from the floor, and in the center is an opening 50 feet in diameter, transmitting a flow of light from the exterior dome overhead. In size this rotunda will rival, if not surpass, the most celebrated domes of a similar character in the world.

As to the uses of the administration building, each of the corner pavilions, which are four stories in height, will be divided into offices for the various departments of the administration. The ground floor contains, in one pavilion, the Fire and Police Departments, with cells for the detention of prisoners; in a second pavilion, the offices of the ambulance service, the physician and pharmacy, the Foreign Department and the Information Bureau; in the third pavilion, the postoffice and a bank, and in the fourth the offices of public comfort and a restaurant. The second, third and fourth stories will contain the Board rooms, the Committee rooms, the rooms of the Director-General, of the Department of Publicity and Promotion and of the United States Columbian Commission.

The other drawing on this page shows one face of the Agricultural Building, one of the most magnificent structures that will be raised for the Exposition. The style of architecture is classic renaissance. This building is to be

(Continued on page 596.)



PRINCIPAL FACADE OF AGRICULTURAL BUILDING, WORLD'S COLUMBIAN EXPOSITION. FROM THE ORIGINAL DRAWING.



## CORRESPONDENCE

Correspondents are alone responsible for their opinions.

## San Diego Notes.

EDITORS PRESS:—Last season's yield of honey for San Diego county was 2½ millions of pounds, and the yield the present season promises to equal the amount of last year's product. Extracting has already commenced, but owing to the cool, cloudy weather of the past two or three weeks, has not progressed as favorably as it otherwise would. At Oceanside, the hills adjacent to the ocean are covered with the white sage, the great bee plant of Southern California; but after leaving the coast one does not find it in any quantity until some 10 or 15 miles back in the defiles and canyons of the foothills where it becomes abundant. There is no contention between the beekeepers and fruit-raisers in Northern San Diego county as there is in the southern part of the county, and especially in the El Cajon valley, where such is the opposition of the fruit raisers that many of the beekeepers are selling off their swarms (so I am informed) at a very low price. Some swarms were sold as low as \$1 per swarm.

Over a large portion of the county, the Merriam, Simplicity and Root hives are those that are usually preferred, the Simplicity taking the lead for extracting, while the Root hive has the preference for one pound comb sections. There is a hive made at Carlsbad that somewhat resembles the Root hive in its interior arrangement; but the sides are so constructed that they can be unclasped and removed, revealing the sides of the movable comb frames. The frames rest on the edge of tin supports, the object of which is to prevent the bees from sticking the ends of the frames fast to the hive. By the arrangement of removing the sides of the hive, the apiarist is enabled to have more perfect control of his bees and also to clean off the bottom board of moths or other obstructions that may collect. Taking it altogether, it impressed me favorably as being a very desirable form of hive.

The soil of the mesas here is composed of a decomposed granite and is adapted to the production of vines, figs and olives. There are hundreds of thousands of acres of this kind of land in this country, and all it needs to transform it from a comparative waste to blooming fields and gardens is water, which problem is likely to be solved in the near future by the San Luis Rey Flume Co.

In the San Luis Rey valley there is 20,000 acres of some of the richest land to be found in Southern California—land that will produce anything that can be grown outside of the tropics, and such astonishing crops of grain and vegetables are grown on this land. In the center of the valley is a mesa on which stands the San Luis Rey Mission, the erection of which was commenced in 1768. It is a quaint old structure and shows the corroding effects of time. The mesa on which the old Mission stands is a level plateau but a few feet elevation above the valley. The San Luis Rey Flume Co. owns a tract of land on the mesa mentioned, on which it proposes to subdivide and lay out a town site when the Oceanside and San Luis Rey Valley railroad will be built and run up through the valley. In time this will be known as the land par excellence of the olive, the fig and the vine; but, like all other places in this mundane world of ours, it too has its drawbacks, chief of which is lack of lumber, wood and water. After buying the land, it costs a small fortune to build on it and fence it. If lumber was cheap and plentiful where are now miles on miles of sage-brush and cactus, would be dotted with beautiful homesteads. It is astonishing to see some of the crops of barley and corn grown on these dry mesas by cultivation, and that, too, without irrigation.

Oceanside, May 28. O. F. SHAW.

## Not Over-Production.

EDITORS PRESS:—An article by James Shinn in last RURAL, is sensible and suggestive, but the latter portion is based on a gigantic error, to-wit, the stale and often exposed fallacy of "over production beyond the capacity of our people to consume." The consuming capacity of the American or any other people has never been tested, and the export of food is no sign that the home people have enough. In every famine in Ireland, when its people were begging the world for food to keep alive, thousands of fat heaves and sheep were being continually shipped to England. To-day in comparatively prosperous America, not only thousands but millions, not only millions, but one-half and perhaps two-thirds of the population of the U. S. are not able to procure a full supply of food of the best quality, while the unconsumed—though needed—portion of the annual products are gathered into an immense "enrpin." The creators of this surplus wealth are in daily need of better food, better comforts of all kinds. The physical body requires an abundant and regular supply of food of the best quality, with pure air and cleanliness. Only based on such bodies can the people achieve and maintain a high development and perfect their freedom. On a hundred thousand farms it is the custom to sell all food products that are choice and good, and to consume only the refuse. Many

hundred thousand childish mouths are cheated of their dues in eggs, butter, cream, fat poultry, choice and tender beef-steak, and wholesome fruits, that the 10 to 15 per cent. interest on the mortgage may be paid. The tenement houses of New York, Chicago, and every other city, the factories of every town, the wives and children of workmen everywhere, and the last great invention of American progress—the tramp—can each and all bear burning testimony to an under-consumption of proper food.

It is argued by Mr. S. that in 1850 agriculture was prosperous, but since, farms have increased in number 260 per cent, while population had only 175 per cent, and hence that production had outstripped consumption. I have not the census reports at hand, but it is within the knowledge of every one that in 1850 we were an agricultural people without manufactures, importing most of our goods. Now with factories thickly covering the whole East, with an immense stream from county to county, with great cities springing up everywhere, while deserted farms are plenty from Maine to California, it cannot be that the ratio of farmers to the whole population is greater than in 1850. I don't believe it. The working class is everywhere the victim of false statistics and false reasoning, misrepresentation and fraud. As long as it can be muddled, it can be robbed.

While such crawling parasites as Edward Atkinson, beg and plead for greater economy among the poor—well knowing that capital ultimately reaps the benefit of every general economy in living among laborers—the undersized bones, lean flesh, dull and care worn faces among the very poor, and signs of deficient nutrition, a too hard struggle for bread, increasing pauperism and suicide—all make eloquent claim for a more generous scale of living, a better diet, better education and more time for it. This matter of under-consumption of deficient diet, of imperfect bodies and therefore imperfect minds, is not a small matter; a matter concerning only a few, or a matter to be remedied, as some mistakenly propose, by restricting the productions thereby increasing the already great evils of our system. The remedy for the downward course of all industrial classes must be sought in a totally different direction. If a farmer now raises 110 bushels of wheat and sells it for \$1 per bushel, what will it advantage him if he raises only 100 bushels and gets \$1.10 per bushel for it? In every case Shylock rides to the farmer's door in his fine carriage and takes all but a bare and scanty living. It is not what any one earns, but what he keeps that enriches him. The American farmer, as well as other laborers is trying the curious experiment of trying to fill through a half inch pipe, a barrel of which half the bottom has been knocked out, while certain parties are trying to knock out the other half. When the farmers are all tenants, and half the workmen tramp, the whole bottom will be out. Mr. Shinn, et al. propose to fill said barrel by increasing size of pipe to a ¾ inch, while I modestly suggest that we first make the barrel water-tight. I am watching the Alliance to see which it will do. W. S. Placer Co.

## Sample Products Wanted.

EDITORS PRESS:—The crops this year of every variety of grain, vegetable and fruit, promise to be abundant and of the highest excellence. This is, therefore, the year in which to secure and preserve specimens for the Columbian Exposition in 1893. Next year's crops may not be so abundant nor the quality so fine as in this year. Every farmer and fruit-grower should select the best sample of his productions, sheafs of cereals, vegetables and fruit.

The California State Board of Trade lost its exhibit by fire last winter, and all that it has is such as was on "California on Wheels." The Board is anxious to have a more comprehensive exhibit than before. It wishes to extend its field of usefulness by collecting specimens of every product of the soil, samples of soil, descriptions of the topography of counties, meteorological data, maps, information as to the variety and special excellence of crops produced in each county and the adaptability of soil and climate to such productions and products of California manufacture. The mining interests will not be neglected. It is intended to make the Board a "Bureau of Information" relating to all divisions of industry. Daily inquiries are made, not only by people in the East, but by our own citizens respecting the resources of the counties, the cost and profit of production of fruit, prices of land and climatic features of different sections of the State, and the feasibility of establishing manufactures.

The Board can be made one of the most useful institutions in the State, if properly supported. The advantage of a county having a representation in the Board and on the floor is at once manifest. To the end that the Board may effect its purpose, it earnestly requests contributions to its exhibit from the citizens of the State. It matters not how small or apparently insignificant the gift may be, it will be useful and thankfully received. Send a sheaf of grain, a stalk of corn, a mineral specimen, a sample of soil, a box of fruit, fresh or dried, and any example of vegetable growth that will illustrate the fertility of soil or skill in culture.

For preserving fruit, use the fluid prepared according to the following formula, which, ac-

ording to the experience of the Board and Prof. Hilgard, is the best generally:

Boil the quantity of water to be used and allow the sediment to settle; when clear, pour it into a barrel or clean wooden receptacle, to be filled to about two-thirds of its capacity. On the top of the water float a tin basin in which put a quantity of ground sulphur. Set the sulphur on fire and cover tightly until the fire goes out; renew the sulphur until the whole is consumed, removing the cover for renewal of air between doses. At each firing stir the liquid. Use about one pound of sulphur for each 20 gallons of water. To every gallon of water add eight ounces of glycerine to keep the fruit from bursting. The jar must be hermetically sealed.

Persons living along the line of the Southern Pacific and S. F. & N. P. R. R. systems can leave packages with the station agent, marked "For State Board of Trade," and they will be forwarded.

E. W. MASLIN,  
Manager State Board of Trade.

## The New Town of Hickman.

EDITORS PRESS:—The extension of the railroad from Oakdale to Merced is bringing into existence the new town of Hickman. This place is named after Mr. L. M. Hickman, who, in company with Mr. E. N. Cogswell and Mr. Robert Dallas, is subdividing a large tract of land, which is being sold on the easiest of terms to actual settlers. Mr. C. H. Finley is managing the tract for Meza & Williams, real estate agents of Modesto. But the railroad is not the sole factor in the development of this town and colony, for it lies within the bounds of the Turlock Irrigation District, in which water will be available before long. This is one of the finest grain sections in the State of California, and, on examination of its soil, shows its adaptability to trees and vines. There are evidences to this point which greatly surprised the writer on a recent visit. Mr. Hickman set out a raisin vineyard last March of 320 acres. It has avenues running around, and through it, lined on both sides with fig trees. This tract has received no irrigation, yet it looks remarkably well, for the soil readily retains moisture. But I was much more surprised in looking over the home grounds of this ranch of 18,000 acres. Here 20 acres are devoted to vines, which are now two years old and producing a fine raisin grape. There are also 20 acres in figs, olives and oranges. These look thrifty, some of the oranges being in bearing. The arrangement of the grounds is on a scale which is seldom surpassed on a grain ranch. The beautiful residence is approached through an avenue lined with double rows of ornamental trees. Immediately around the residence are lawns and flower beds. This farm is under the supervision of Mr. E. H. Williams.

Next season Mr. Hickman will set out a large acreage to prunes, besides 15 acres to oranges. The two other gentlemen also intend to set out a large number of trees and vines.

With three such enterprising farmers at its back, the town of Hickman will soon develop great importance. Indeed, plans are now being executed in the construction of fine buildings. The Grange Company of Modesto is building a brick warehouse, 200x80x16 feet, having cement foundations and a solid floor of earth up to the level of the car floor.

Next week work will be begun on a railroad depot, a Presbyterian church to cost \$3500, and a hotel to cost \$10,000. Other buildings are soon to follow these.

It is remarkable the number of people who are ready to invest in a small tract of land when offered on reasonable terms. Nothing will develop a country sooner than good bargains in land. Such a place I found Hickman to be, and when its colony tracts are set before the public it will attract many settlers.

The canal of the Turlock Irrigation District is nearly completed to Hickman, which is the only difficult section in the whole course. The dam, which is to be built jointly with the Modesto Irrigation District, will be finished by next January. Water is to be taken from the Tuolumne river. Just on the edge of town there will be a drop in the canal of 15 feet. This will furnish an abundant power for manufacturing, as the canal is a large one.

Oakdale, June 6, 1891. HUGH BAKER.

## POULTRY YARD.

## Odds and Ends.

EDITORS PRESS:—Last October one of my hens hatched out 12 chicks and raised nine of them. Two were pullets, and when they were five months old they began to lay. One of them has lately hatched out eight nice chicks, and I was just thinking how finely they were doing, when I heard a flitting outside the door and there were five of the eight flitting about in sly, sly, sly. There had been poison put into a gopher hole and Mr. Gopher had thrown it out just in time for Mrs. Biddy to give it to her chicks. I gathered the poor little things up, melted some lard as quick as I could and poured some down their throats, but two died immediately and the others were in spasms. I happened to remember reading in "Hard Cash" that the old Scotch doctor cured one of his patients of poisoning by having him inhale chloroform when the spasms or rigors came on, so I rushed for the bottle and grabbed up the chick that was having the worst spell and snuck his bill into the mouth of the bottle. Almost instantly the rigors relaxed and the

chicken stood up. I gave them a whiff of the chloroform two or three times before the spells ceased, but they are all right now.

One of my older chicks was running about kind of lopsided. Its head had been scratched clean of feathers and was ornamented with a big scab. One eye was closed and he looked as though he had been having a free fight. I caught him and wet his head well with diluted carbolic acid, and was going to put him down, when I noticed the lids of the swollen eye had what looked like hairs. That rather struck me as queer, for I had not even imagined that chickens had eye-winkers. Thinking maybe they were the cause of the swelling, like wild hairs on human eyes, I took hold of one of them and gave a vigorous pull upward, and found in my fingers one of the big foxtail seeds or "boobs," as the children call them. It had worked its way down the cheek inside the lid till there was only about one-sixteenth of it showing. Mr. Chick shook his head and seemed much relieved, and he is all right now.

Then for variety one of my 12 Turkeys began to droop, so I caught him or it, and opening his bill there appeared to be a sort of shelf stretched across its mouth. I told him I thought he was quite an enterprising young Turk to be making an extra receptacle for food, but that I believed his health would be better without that. I took the tweezers and pulled out at least an inch square of egg shell that had been entirely too large to swallow. How he got it into his mouth as far as he did, I don't see.

I tried my hand at hatching duck eggs this year but I shall not get rich from them. I set two hens on ten eggs apiece and when they had set 12 days we went visiting and did not get back till late, so thinking the setting hens could not get out of the granary where I had set them I went to bed without making my accustomed tour among the chicks. In the morning there were two nests with a lot of cold duck eggs in them. I hunted around and found one of the hens and put her back thinking there was no use bothering with her but would let her set the time out just to see what would happen. I have often had chickens hatch out when the hen has been off three and four hours and the eggs and nests were quite cold, but had never tried setting eggs that had stood all night. Well four of those eggs hatched out and one duck is still alive and half grown.

Our boys have been raising pigeons but they have the nests too close together I think as only two pairs ever stay, the rest all go off. Talk about the meekness of doves, they are horrid cross to each other and the males fight fiercely. A young fellow who lives near us was telling us the other day how a friend of his who had a pet dove utilized it quite successfully in hatching chicken eggs. Whenever it wanted to set she would put a hen's egg in the nest and Mrs. Dove would hatch it out. She had hatched 13 in that way up to date.—MRS. J. HILTON.

Los Alamos

## THE DAIRY.

## Cheese Making at Gilroy.

The writer of the dairy article in the *Overland Monthly* for May, to which we have already alluded, gives the following interesting account of dairy policies and practices at Gilroy, Santa Clara county:

The method of making cheese as practiced in one of the most progressive cheese factories I have visited is something as follows: There were being milked 140 cows, and the product was five and a half cheeses per day, of 60 pounds each. The cows were milked in a barn, and the milk after being weighed was hauled by a pulley, and strained from the outside into the cheese room by a trough which carried it into a large vat, holding over 400 gallons. In this, the night's milk stood until morning, and the morning's milk was then added to it. The whole was then heated to 86 deg. Fahrenheit,—the cheese maker can do nothing without his thermometer. Then there was added to it a certain amount of coloring matter, extracted from annatto seed with a little lye and reduced with whey, and the rennet put in at the same time. In ten or twelve minutes the thickening was complete. The cheese-maker discovered this by the test of introducing his finger horizontally, under an inch or two of the curd, and slowly raising it. When the curd broke clean across his finger, he noted the time it had taken to thicken, and after waiting double that time more, cut the curd. This was done by passing quickly through the whole mass, a frame with horizontal knives in it, about an inch apart, and following by cutting with a similar frame holding vertical knives, thus reducing the curd to long strips about an inch square. In a few moments the effect of this showed in the gathering of whey at the top of the vat, hastened by the beginning of the cooking process, which was done by turning steam into the water chamber which surrounds the vat.

The steam was kept on till the temperature was 102 deg. to 106 deg., a difference determined by the desired firmness of the cheese to be made. Then it was out again or overways with the vertical knives, which reduced the curd to cubes about an inch square. Into this vat of floating cubes the cheese maker plunged his arms to their full length, and gently stirred it up till the heat grew too great for him, and



then he took an ordinary hay rake and continued the process, making the motions very gently to avoid squeezing the curd against the sides of the vat and breaking the curds. The curds, under the operation of the heat and stirring, soon gave up so much whey that they shriveled to something less than half their original size, and looked like little irregular dice. They were allowed to stand in the whey two hours or so, until the whey became slightly acid. The stirring was repeated every fifteen minutes. Then the whey was strained off, and the curd salted at the rate of two and a half pounds of salt to 1000 pounds of milk. It was then put into the press, and stayed under the heavy screws about 20 hours. Then it was taken out and placed in the cheese room, which was heated by a stove to a temperature of from 68 deg. to 75 deg. There the cheeses were kept two or three weeks, when they were either shipped to the market, or placed in an unheated storeroom to stay till wanted, perhaps eight months or a year.

The figures vary slightly according to the kind of cheese made; a much cooked cheese being harder, requiring longer to cure, and keeping much longer than a softer cheese. When great keeping qualities are desired, the curd is put through a still further process, called "cheddaring."

After the whey is run off, the curd is packed on the sides of the vat, turned and broken in pieces by the hands every five minutes, until the whey is very thoroughly strained off. Then it is passed through a machine, that grinds or cuts it very fine before being put into the press. This curd is kept until the whey is much more acid than ordinary cheese, which also helps to harden it. The cheese maker will tell you that he keeps it till it is "one quarter to one half inch acid." And this phrase will puzzle you, until he shows you what it means. He takes an iron and heats it quite hot. To this he applies the lump of curd. Fresh curd will not stick at all, only sizzling when it is pressed against the hot iron; but if it be old enough to be covered with sour whey, it will adhere more or less firmly to the iron and when pulled away a little, will cling to it by a multitude of fine filaments. The length at which these break, whether one half or one quarter of an inch, is the test of acidity which the cheese maker uses.

Of course each cheese maker has his own special notions in regard to times and temperature and the details of the process, but this account has been taken from the practice of one of the best cheese makers in the neighborhood of Gilroy, a country given over almost entirely to cheese making. The special distinction that this dairyman enjoyed among his fellows was that they always referred to him as "the man that milks in a barn." The others milked in open corrals, and had no shelter for their animals.

The "barn" man made 330 pounds of cheese a day from 140 cows, whereas one of his neighbors told me that he was making but six 25 pound cheeses a day from 200 cows, and he explained apologetically that he had "been milking his cows all winter;" but more than that was evidently the reason of the difference in product, for the cows of this second man showed by their pinched and scrubby appearance that no attention had been paid to selecting of stock, and as little to the feeding and care of them. The calves at this place were fed mostly upon whey with perhaps a little oil-cake or corn meal added to it, and what could a calf do, but present a starved appearance on such diet?

The best calves that I saw near Gilroy were those that were allowed to obtain their food in the most natural manner. Hard milkers or restive or unruly cows were chosen for the calves, and often made the most devoted guardians, sometimes allowing as many as four calves to snuggle at one time.

The Gilroy dairymen, as those elsewhere, were of many minds as to the best stock for cheese purposes, but most of them preferred the Durham, though a few the Holstein. One reason, it seems to me, for this diversity of opinion, lies in the fact that different strains of cattle of the same breed have diverse productive powers; there is the beef strain of the Durham, cows of which I have been told are often unable to provide milk enough for their own calves; and there are milk strains that have high milk records. Careful breeders learn exactly the product of each animal; and if any given cow, no matter of how good a pedigree, falls to come up to a set standard, she is ruthlessly weeded out of the herd; but since it requires rather more nerve than most men have, to send a thoroughbred animal to the butcher, I am afraid that oftentimes weeding out is accomplished by selling such animals to less observant neighbors, who wish to try the virtues of thoroughbred stock. The trial, of course, proves entirely unsatisfactory to the purchaser, and he can never be induced, after that, to see anything good about that particular breed.

In cheese making, as in everything about the milk industry, the utmost cleanliness is necessary. There must be good milk, which of course implies good stock, well fed; and there must be all proper appliances to promote cleanliness; that is, for example, the milkers must pour the milk into a strainer on the outside of the cheese room, to avoid the necessity of coming into the room with the odor of the curd about them. And this is only an example of the thousand little details that must be well managed to produce a gilt-edged result.

## Preserving Milk.

Many devices have been tried to so preserve milk as to retain as near as possible its natural condition. The latest effort is described by the *Scientific American* as follows: Fresh and sound milk not later than one hour after milking is placed in jars made of a suitable material.

The jars are made in three parts. The bottom part, in which eventually the milk is preserved, is first filled; the other two parts together form what is called the mediator. This is screwed into the bottom can and acts as a filler. For this purpose, even after the bottom can is filled, the top filler is kept three parts full.

When a number of cans and mediators have been fixed in a tray, they are filled, and the whole lowered into water in a suitable boiler. The milk is heated up to about 200° F. As soon as the mediator and can are full, by the milk expanding, a tap at the top of the mediator is turned, and the whole is thus hermetically closed. The water in the boiler is then raised "to an intense heat, and this will keep the milk for another 50 minutes at a somewhat high temperature." The jars are next deposited upside down in a cooler, and left in this position for 60-80 minutes. This insures the mixing of the milk, as it is in the nature of the milk that its fatty particles, and therefore the buttermilk will rise to the surface. The cans are finally placed in an upright position. The vacuum above the milk in the mediator is caused by the contraction of the milk. The air-tight stopper between the can and mediator is now turned, and as the ordinary temperature is rather higher, the can will be full, and there is little chance of the fat coagulating, should the cans be shaken. The mediator is opened, and the milk in it having been run off, it is taken off and the process is complete. The milk is said not to lose its freshness, pureness and sweetness, even after 18 months or two years in hot countries, and when opened tastes like new milk, fresh and sweet.

## Feeding Value of Whey.

Four trials were conducted at the Wisconsin Experiment Station during the fall of 1890-91, for the purpose of ascertaining the value of sweet whey for pig feeding. The results of these trials show:

First—We were not successful in maintaining pigs on whey alone.

Second—Pigs fed on cornmeal and shorts, with water, required 552 pounds of the mixture for 100 pounds of grain.

Third—When whey was added to the cornmeal and shorts mixture, it produced a marked saving in the amount of grain required for good gains. This was true of mixtures varying from two pounds of whey to one of grain up to ten pounds of whey to one of grain.

Fourth—It was found, when using whey as a partial substitute for grain, that 760 pounds of whey effected a saving of 100 pounds of cornmeal and shorts mixture.

Fifth—Using these figures, if cornmeal and shorts are valued at \$12 per ton, then whey is worth eight cents per hundred pounds; at \$15 per ton for the cornmeal and shorts, whey would be worth ten cents per hundred weight.

Sixth—Shorts, pea meal and oil meal, or like feeds, should be mixed with whey for growing animals. Some corn may be fed at all times, the proportion increasing as the animal approaches maturity.

## HORTICULTURE.

### San Diego Horticulture.

EDITORS PRESS:—We hear of pencils being sharpened at Tulare, which is a reminder that San Diego pencils need sharpening as well. Since the Itata episode and the Presidential visit, nothing exciting of a public nature has occurred until last week a cablegram from London announced that satisfactory arrangements had been made with an English company to build a railroad from San Diego bay to Yuma and San Quintin, Lower California.

During the past year, considered very quiet, much of the county's best development has been made. Over 600,000 fruit trees have been planted out since the first day of last January, and the bulk of citrus fruit trees are yet to be planted. Millions of orange trees are yet in the seed beds, and large quantities of seed are being planted. At this rate we shall soon be independent of Florida, a "consummation devoutly to be wished."

The County Horticultural Society met last week and held one of its most profitable meetings. The first day was spent in discussing the World's Fair, plans for exhibition, appointing committees, etc. The second day was devoted to miscellaneous topics. Lemon culture occupied considerable time, as it is a subject in which San Diegans take especial interest. Dr. Frank Blaisdell read a very instructive and interesting paper on "The Relation of Entomology to Horticulture." Although a young man, he knows a great deal about insects, having made entomology a life study. He has one of the largest collections of insects in the State. R. H. Yonng of the *Great Southwest*, who

took charge of San Diego's Orange Carnival at Chicago, made an interesting report of the same and gave important facts learned while there with regard to marketing fruit. Mr. Herman Copeland gave an excellent address on "Fertilizers" of great value to the fruit-grower who believes the soil inexhaustible. The "Seedless Sultana," "Public Highways" and "Olive Culture" were the subjects of other papers.

Mr. Williams of Fallbrook read a finely written article on "Local Horticultural Societies," and suggested the idea of the county society holding some of its sessions in the fruit-growing districts instead of San Diego City. An excellent suggestion.

Mrs. Carrie Williams, President of the Silk Culture Society, gave the history of the industry this year established in San Diego. She is assisted by two Japanese experts who are giving the ladies practical instruction in sericulture preparatory to enlarging the business. Sixty thousand little spinners have finished their work and are hidden away in their houses of silk. The Japanese pronounce this the ideal climate for silk worms. The society is ambitious to furnish an elegant silk flag entirely home product for the World's Fair. Many thousand mulberry trees were planted in the county last year on Government claims, and many are planting a few in their grounds in anticipation of raising silkworms next year, so the supply of food will in a short time be unlimited.

National City.

F M K.

### Santa Maria Fruit Notes.

EDITORS PRESS:—Santa Maria valley has already gained considerable notoriety as a fruit producing region, especially for large growth of trees and fruit, and this time she comes to the front with a walnut tree which breaks the record. Mr. Jos. Kaiser, who has a large orchard in the upper part of the valley, has a walnut tree two years old from the seed that is fruiting this year.

In May, 1889, Mr. Kaiser planted some 200 pounds of improved, soft-shelled, English walnuts to raise trees for his own use; they all grew well, but five of the little trees made such rapid growth as to excite his attention, and he decided to let them remain in the nursery, and to ascertain, if possible, the cause of their superior growth. They have continued to outstrip all their surroundings, and to-day one of them measured nine feet two inches in height, seven and one-fourth inches in circumference at the surface of the ground, and bears on its topmost limb a cluster of three walnuts as large as cherries. The tree has a dense foliage. The leaves are dark green, long, thin, more slender than those of the ordinary soft-shell and indented or saw-shaped edges. The other trees of this group of five are not quite so tall, and have a wider spread of branches, the largest one measuring 11½ inches in circumference.

This marvelous growth and early fruiting seem almost incredulous. They have equalled the eucalyptus in rapid growth, and for early fruiting they stand without a parallel; should they prove to be a new variety and true to present characteristics, they will be the most valuable addition ever made to the walnut family.

Fruit trees throughout our valley generally are making a fine growth this season. There is much more moisture near the surface of the ground than at this time last year. Several young orchards here are just coming into bearing, and promise exceedingly well except prunes, which seem to be dropping, supposed to be on account of the trees being too young to mature the fruit; the older prune orchards are very full of fruit. We hope to produce enough fruit another year to require a cannery and a railroad to handle it. Our grain crop promises to be the largest and best for many years. The acreage planted to beans and other summer crops is greater than ever before, and it all looks well. With good prices offered for everything, the outlook for our farmers and fruit men is surely encouraging. O. W. MAULSBY, Hort. Com.

Santa Maria.

[We are glad to hear of these promising walnuts, and hope to be kept informed of their progress.—EDS. PRESS.]

## ENTOMOLOGICAL.

### Lights for Destroying Insects.

[Written for the RURAL PRESS by C. W. WOODWORTH, University of California.]

Many insects, especially of the night-flying species, have the unaccountable habit of flying toward a light. To take advantage of this peculiarity has been a favorite theme with theoretical entomologists, and collectors of insects habitually employ this means to add new species to their cabinets.

Nor have practical farmers entirely neglected this subject, and we often read their enthusiastic approval of this plan of destroying insects. Inventors, too, have exercised their ingenuity till there are a goodly number of "new and improved" lantern traps which threaten to exterminate the insect kind.

### The Original Method.

Originally the plan was to destroy the insects by the fire which served to attract them.

Thus in the cotton fields of the South, before the war, great fires were built to destroy the cotton worm moth, and torches were carried through the fields by the negroes. What the result of such work was must, from the nature of things, always remain to a great extent a matter of conjecture. Some insects were undoubtedly destroyed, but what and how many we cannot tell. The fact is, nevertheless, that it was no evident brilliant success.

### The Modern Trap.

Something more economical and effectual than the fire method was found necessary, and the modern light trap was the result. This consists of two essential parts, the light, and the vessel for killing the insects to which inventors have added various forms of reflectors to modify the direction or character of the light, and what we may call deflectors which serve to throw the flying insect into the vessel below.

To kill the insect, the plan that I believe is now uniformly adopted, is to partly fill the vessel with water, and to pour upon it a thin layer of kerosene oil.

The size of the vessel has varied from that of a pan of perhaps a foot in diameter to a wash-tub of perhaps three feet, the intensity of the light from a torch with scarcely one candle power to an electric light of several hundred, a marked change in either respect making a perceptible effect in both the number and the kind of insects captured. When the electric lights were first introduced for lighting cities, entomologists were often surprised by the abundance, about the lights, of insects often of considerable size, the existence of which in that locality had been unknown to them, and collectors have often remarked to me the great difference in character of the collections taken about electric lights and those about a common oil lamp.

The addition of reflectors and deflectors to a lamp certainly does increase the number of insects captured, but I have not found a lantern trap yet that would capture anywhere near one quarter more than the simplest form of light trap, and unless the addition of these reflectors make a noted increase in the effectiveness of the trap, the additional first cost will prevent their economical adoption.

### A Cheap Light Trap.

The trap that has been most extensively used by cotton planters and which seems to be the most economical when one considers first cost, cost of maintenance and quantity of insects killed.

It consists of a pressed tin basin, with a capacity of about one-half gallon, a plain tin torch holding about one-half pint, which is soldered in the pan, and a tin tube soldered to the bottom beneath the pan. By means of this tube the trap is set upon a stake driven into the ground. The basin is partly filled with water, the torch filled with oil, and a little of the latter poured on the water, and the trap is ready for the night. The torch will burn eight or ten hours, when it goes out, thus requiring only to be filled and lighted each evening.

Such a trap can be put up, I suppose, for about 25 cents, and the oil will cost about 50 cents a month. Besides this, there is the cost of the care of the traps, the filling and lighting, which will naturally be the largest item.

### Does It Pay?

Whether light traps really pay is still a matter for experiment. The present knowledge of the subject would not enable one to safely say that it did not pay, and with still less safety could he contend that it did pay.

As used against the cotton worm moth, they have proven a most decided failure. I have seen these traps used by the thousand and kept going each night for weeks with no apparent results. Early in the season, great quantities of insects were captured, many of which the planters could not distinguish from the cotton worm moths. A careful examination at this time showed that a hundred traps would not average a moth a night. Later in the season, when the worms had about destroyed the cotton, these moths filled the basins, but by a careful estimate they were being produced at least ten times as fast as they were being killed even in the little field in which the traps were situated, that were under observation.

The fact that lights failed so completely to check this particular insect does not prove that it may not be useful in other cases.

Under ordinary circumstances, fully one-half, often nine-tenths of the insects captured by these light traps are insects not known to be injurious to cultivated crops, and some of the parasitic insects are attracted to a light in great numbers. These facts should be carefully weighed, and the results of the captures of the traps most carefully scanned before one expresses himself in favor of this method of treatment.

Berkley June, 1891.

IRRIGATION AT YUMA.—It is reported from Yuma that the large pumps of the Yuma Irrigation Works are running successfully and supplying an immense amount of water from the Colorado river. The Yuma pumping plant for irrigating is the first ever used in Arizona. It will irrigate a large acreage of land on the west side of Yuma. This land is planted in vineyard and citrus fruit. The Black Hamburg grapes are ripe, and other varieties will be ready for shipment from here within a few days.



## PATRONS OF HUSBANDRY.

## Our Grange Edition.

The Grange news of most general interest is given through all editions of our paper on this page. Several supplemental pages, devoted to Grange interests, are added in our Grange edition, which any subscriber can receive in lieu of the regular edition WITHOUT EXTRA COST, by addressing the publishers.

## The Master's Desk.

R. W. DAVIS, W. M. S. G. OF CALIFORNIA.

Deputies will be expected to push the work of organization and reorganization as soon as the rush of harvest work is over. Please prepare, brothers and sisters, to do some Grange work about the first of August. Who will organize the greatest number of Granges before October 1st? The cause is just, the work pleasant, the associations elevating, and the reward sufficient to warrant any one to work for an Order that believes: "In essentials unity, in non-essentials liberty, in all things charity."

## Be aggressive for the right.

Half the good done by the Grange is not known to the general public. It seems to me this is a fault our own people should correct. It is not necessary to brag, nor is it well to tell all one knows, but it is well and right and proper to tell some of the successes of life, that others may be profited thereby. If your neighbor knew one-half as much of the good done by the Grange as could be written, he surely would want to join. Tell him through the paper, tell him from the rostrum, tell him on the street or highway, yes, go to his home and tell him some of the good work done by the Grange. By so doing, he may be (almost) persuaded to join an Order where the welfare of each is bound up in the good of all.

One dollar and a good name secures a farmer's wife or daughter membership in a subordinate Grange. How can a dollar be more profitably expended?

It would be a pleasing and profitable experience to see a short communication from every Grange in California in the same edition of the RURAL PRESS. To that end the Master suggests that the Secretary of each Grange in this jurisdiction write a few lines for insertion in the RURAL of July 4th next. Be sure to mail the letter in time to reach San Francisco by the 1st of the month. This done, we will have a grand Independence Day Grange paper. The writer will watch with anxious eye to see who responds to this request.

Do you want a Farmer's Institute in your county? If so, file an application, at once, with Prof. E. J. Wikson, Berkeley, Cal.

Read a Grange paper, if you want to keep posted about what the Grange has done, is doing and proposes to do.

If you believe in rural life and rural pursuits, be sure to read a rural paper for rural information. There is no better rural journal than the San Francisco RURAL PRESS, published once every week by Dawsey & Co., at 220 Market street, San Francisco, Cal.

Bro. Hiram Hawkins, W. M. of the Alabama State Grange, and W. O. of the National Grange, has been elected President and Manager of the Alabama State Fair. This looks very much as if Alabama is going to have an agricultural fair. Other States in the Union, not a thousand miles from the Pacific ocean, might well profit by this example.

The Grange, in its wisdom, knows no partisan, political or sectarian religious ties. Yet there is no better politics than is to be found in the practices and purposes of the Order of Patrons of Husbandry, nor is there more religion or better morals practiced by any fraternity than is advocated by the Grange. Are farmers unwilling to join such an Order? Don't they know what power comes from thorough organization? This is a day of organizations, and the vocation that makes most social, financial and political success is the one that has the most intelligent and thorough organization. Won't the farmers of California, knowing the power that union gives, unite with the Grange? Why don't the thousands of soil-cultivators come at once into the ranks of the oldest, truest and most thoroughly tried of all agricultural organizations—the Grange.

There will be some social, literary and musical surprises for those who attend the next session of the State Grange. We can't tell any more now.

Most satisfactory reports come from the recent annual sessions of the Oregon and Washington State Granges. This is what we expected to hear. It could hardly be otherwise when such valiant and competent Patrons as Worthy Master H. E. Hayes and Worthy Master D. L. Russell are at the helm. May they live many years to do and continue to do good work for the Order of Patrons of Husbandry. And as our sister States, Oregon and Washington, are sure to grow in wealth and population, may these zealous Captains, aided and encouraged by thousands of thrifty Patrons,

plant the Grange seed in every nook and corner of their respective jurisdictions, till the farmer shall be in fact the "leader of them all."

There are few subjects that more directly and more seriously affect the farmers of this State than the subject of highways, their construction and maintenance. Every farmer is heavily taxed that roads may be built and (supposedly) kept in order; yet not one-half of the roads in California are in proper condition for heavy hauling. This condition of things is all wrong. Money enough is collected in every county to put and keep the roads in splendid condition if the money were fully and honestly expended on the highways and not put into the pockets of too many ornamental overseers. Let each subordinate Grange look to the public roads and the public schools within their respective jurisdiction. By so doing the Grange will do great public service and no one will be wronged, for right wrongs not even the weakest and poorest one. Public money must be honestly and economically expended.

"Steady! Front!" is the position every Patron should now assume. This is a very critical time for the farmer. Schemers of all kinds are trying to throw a bombshell of discord into the ranks of the Grange soldiers. The very fact that the industrial classes are aroused shows that there is something wrong. In financial, political and social circles this uprising has a deep significance.

Everybody has this question on his lips: "What does this uprising of the farmers mean?" The politician sees that it means his downfall, provided he cannot create a rumpus in the ranks. The man who lives by his wits knows it means that he must go to work for a living unless he can create a row in the ranks of the laborers, and so we find it everywhere.

All know that the Farmers can, if they will, dictate terms. How exceedingly important, then, that we proceed cautiously. Now is the time the Grange and all kindred organizations should stand by the principle—the greatest good to the greatest number—faithfully, honestly, intelligently. Let's make no mistakes. We ought to know just what to do, and what not to do.

Good men everywhere are looking with sympathy, but with apprehension, upon this uprising of the industrial people. Let us rise to the importance of the case, and, forgetting self, act for the good of all. We cannot afford to strike out blindly and ask for everything, if we hope to succeed. Let clear, honest, precise demands to right wrongs now existing, be made, and we will have helpers outside of our own ranks. "Let us be honest, be just and fear not," avoid all sorts of excesses, and the victory is sure to be ours.

The sunlight of reform will warm into life a new lot of statesmen, financiers and philanthropists, if we but act unitedly, cautiously, openly, sincerely and honestly. We must take good counsel, give and follow good example and not be hoodwinked by outside flatterers or pretended friends.

## The Granges and the State Fair.

The subordinate Granges are especially invited to organize county exhibits to compete for the \$2500 which will be awarded for county exhibits at the coming State Fair at Sacramento, Sept. 7th to 19th. We find the following paragraph in the premium-list just published:

The State Board of Agriculture earnestly desires the hearty co-operation of the various subordinate Granges throughout the State, in making this exhibition of California's products a success, whereby the varied products of different localities may be fully shown. We would ask the appointment of a committee from the Grange in each county to call upon and urge the Patrons to make a display representing their respective counties.

FOR REDUCTION OF DUES.—The Secretary of the State Grange has been notified by Bro. A. A. Krul, Secretary of Sacramento Pomona Grange, that at a regular meeting of that Grange, by motion of Bro. David Rea, the Executive Committee of the State Grange is requested to submit to the subordinate Granges for their consideration a proposed amendment to the Constitution and By-laws of the State Grange, providing for the payment of 10 cents instead of 20 cents, as now required for quarterly dues from subordinate Grangees to the State Grange.

A YEAR or so ago the winter vegetable-growers of Oahuenga valley, near Los Angeles, made one-third more profit by combining, chartering a car and shipping to Chicago instead of to San Francisco. Perhaps the wheat-raisers of California could do the same way. What we need to do is to combine to reach better markets, and thus destroy local control of our wheat and other crops. We must find how to deal more directly with those who need our products.

THE MEMORIAL SERVICES, on Decoration Day, at Watsonville Grange were patriotic, pathetic, pleasurable and pleasing. The overcrowded hall attested the general interest, and all were visibly moved to grander exploits and more loyal adherence to our innumerable country and undying flag. Bro. Osborne, a member of the G. A. R., warmly eulogized the Grange in words that came from the heart.

## From Overseer Roache.

## A Delayed Communication—Fresno and Tulare.

EDITORS PRESS:—The next day after the glorious Tulare picnic found us on our way to Visalia and surrounding country (which, thanks to Bro. John Tnoby, whom we found a genial, companionable, well-informed gentleman, who placed us under many obligations by his thoughtful consideration, not only of us, but of Grange interests as well) of which we saw much to admire. In the course of our ramblings we called on Judge Cutler, a constant reader and admirer of the RURAL, and a wealthy land-owner. When asked the number of acres he owned, he had to stop and count up and then was not sure he gave the proper number. But, best of all, he bought it and honestly paid for it, so that one cannot but feel well pleased in noticing the contentment with which he and his devoted wife and large and interesting family enjoy it. Bowed by the fruits of 73 winters, he felt unable to assume the responsibility of a Grange leader.

Monday noon found us in the growing village of Selma, which, by the way, has a future little dreamed of at present. If I were a young man, desiring to found a home, which, agriculturally speaking, means first a piece of land, and next, a true-hearted woman for an equal life partner (a house doesn't signify), I would not go to the older or most populous portions of the State, where prices of land are far beyond the reach of the ordinary home builder. I would go straight to Selma, or Tulare, with a slight leaning toward Selma, for land that is cheap, rich and well watered, but with a decided preference toward Tulare for the partnership. Splendid farms and homes are being daily carved out of the once wild wastes of both these thriving, busy places, which must be seen to be appreciated.

At Selma, I visited an open meeting of the Grange where I met some of the progressive farmers and business men of that energetic community. After the open meeting a closed meeting was called and some needed instruction given in Grange work.

Sister Roadhouse, Master of the Grange, daughter of a learned college professor, wife of one of the rising farmers of the valley, herself a successful teacher, and a natural leader in everything, is using her fine abilities with marked effect in behalf of her Grange.

We remember with pleasure the names of Bro. and Sister Holton, Bro. and Sister Dudley, and a few others whose names we cannot this moment recall, who are "True Blues," "dyed in the bone," who are bolding Selma Grange with a grasp that knows no relinquishment and a steadfastness of purpose which must triumph.

While a faithful few are holding the fort against all odds, there are numbers of able Patrons in close call who are willing to let them do so, who, when they get over their rush, if they ever do un this mundane sphere and their Grange should still exist, may drop in occasionally and see how it gets along, that is, if they have nothing else to do. Brothers and sisters, such actions are

Not in Keeping With Your Obligations. Not in keeping with the spirit of the Grange, not in keeping with the dignity and needs of agriculture, and not in keeping with the progress of the nineteenth century, with whose advance columns you are daily and hourly confronted. Surely life should not all be given to the selfish accumulation of wealth to the exclusion of all the higher and better sentiments of the mind and soul!

Remember the true man or woman is only what one is when divested of all that wealth and position can give.

## Let the Soul Shine Forth

Alone, untrammelled by aught but boundless love for all humanity, and with an innate desire that this love shall onlimate in some good to some wayfarer on the great "ocean of life." Stand by those who are so faithfully and fearlessly standing by your interests, while you, through indifference, are neglecting them. Support your officers as you should; fulfill your obligations as men and women should any other debt of honor, and your poor neglected Grange, responding to the spirit of progress which everywhere surrounds it, will not be only a pride and benefit to the community, but a lasting monument of your labors and worth which your children and children's children will inherit with thanksgiving and gratitude.

A. P. R.

GRANGE PICNIC AT APTOS.—The Grange picnic at Aptos was a pleasing affair. The attendance was large, and the old hotel grounds, that have been so long deserted, echoed with the shouts of happy children and the sounds of merriment. The literary and musical exercises of the day were of a high order, and the "feast of reason and the flow of soul" was followed by a feast of good things such as can only be found in the Granger's larder. After a jolly day's amusement the crowd returned home in the evening well pleased with the world in general.—Rustler.

WATSONVILLE GRANGE will initiate a large class in the first and second degrees, June 20th, and confer third and fourth degrees, June 18th, Harvest Feast, and Pomona Day, July 25th,

## How Shall the Grange Use the Farmers' Institute?

The Institute has been fitly named the Farmers' University—the most successful means of awakening thought and improving practice along the lines of more careful agriculture.

On page 576 of last RURAL, plans of Institute work are outlined and local co-operation recognized as a necessary factor.

## Here is the Opportunity of the Grange.

It was wisely said: "A community will do for a church in proportion as the church benefits the community." Now that is equally true of other organizations. In no way can a Grange so benefit its community as by planning, sustaining and securing necessary co-operation for a live Institute. You can't send men home each with a new-coined \$20 piece in his pocket, but it is not so hard as you might think to send him home with a new idea that he can coin into a \$20 profit.

In the Grange you already have, or should have, the very best material in the vicinity to lead an enterprise of this kind.

## Here is a Place to Begin.

Appoint some member who will post himself to prepare an essay upon plans, purposes and results of Institute work. If he lacks for material or information to prepare such an essay, a letter to Prof. Wikson at Berkeley would doubtless draw out suggestive pamphlets and statistics. Question him for half an hour after the reading and draw out all further information possible. One question will suggest another, and very soon your members will see the design of Institutes. Perhaps at next meeting some will be willing to prepare an essay upon some such subject as Testing dairy cows, Packing fruit for shipment, Relation of drainage to irrigation, Uses and abuses of irrigation, Caring of dried fruits and Co-operation in Marketing.

## More Practical Farming Wanted.

The writer has observed in Grange gatherings that we are political economists of no mean pretensions; that we seem to have imbibed statesmanship with our mothers' milk, but that we have very little to say about practical farming. Now is the time and here is a way to remedy that. The question box is another. It ought to be on every Master's desk and freely used at every meeting. Feel around in these ways, and you will soon learn what talent you have to depend upon in your Grange, and can resolve yourselves into a committee of the whole to enlist outside co-operation. When you feel prepared for a public Institute, and write to Berkeley for help, tell Prof. Wikson what subject would most interest your citizens and who can be depended on to assist and in what way. That will aid him greatly in arranging a program. Then get out your posters. Spread the good news. Let every brother farmer in whom you feel an interest know that you are going to have something worth bearing.

Don't carry the idea that we have heard some express that the University is to send us a Professor to teach us how to milk or plow. He may study out some plan to get us to tell one another how to turn the milk to most profitable account, or under what conditions the soil can be plowed to best advantage. We want to know how to use the scientific information within our reach.

Our Government has a Department of Agriculture, endows universities, establishes experiment stations, gathers statistics and makes elaborate surveys, all for our benefit; and many of us are in the position of the small boy who only eyed the table while the company ate all the rare delicacies. We help pay for that Department. It is our share of Uncle Sam's feast. Let's sit down at the table. When Uncle Sam sends his representative to serve the banquet, call for the best in the house.

## How These Thoughts Were Suggested.

These thoughts were partly suggested by hearing from a Grange in which the writer had taken great interest and proposed many new members, that they had met but not come to order because there was nothing to do. To think that he has recommended as suitable material for a Grange those with too little gumption to find something to do! It is too bad. Here is something to do and keep doing until we all know everything that another member is capable of teaching us and have secured all new members that can be made to give a new idea.

To prepare a subject for the Grange puts it more clearly before the writer's mind. The Institute plan of questioning draws out from others ideas that the writer did not have, and it is unusual for any one to sit an hour in such a meeting without learning something.

Don't try to cover too much ground with your subject. Cream separation is a far better subject for an hour's talk than dairylug. Get some one up on the specialty in which he is posted, and choose, if possible, one who can about his ideas straight at the mark with the force given by the powder of successful experience. You can get a great many interested in the Institute who would never come to the Grange, and there learn what material you want and how to approach them. That is how the "Institute booms the Grange," as Bro. Hale says. It keeps your old members at work and interested and pays them for coming, and shows outsiders that ours is an active society, prepared to get and give good things, and so brings in the very cream of the crowd.

F. S. C.



## FARMERS' ALLIANCE.

## Alliance Edition.

Subscribers can receive our FARMERS' ALLIANCE EDITION WITHOUT EXTRA COST, by applying for the same. That edition contains several supplemental pages of Alliance matter, in addition to that which appears on this page through all editions.

## A More Christian System of Co-operation.

The Farmers' Alliance has two plans of business co-operation: one suited to exchange or buying and selling business, and another for manufacturing or other business not of an exchange nature.

As has already been explained, the first consists simply of a state agent, paid a salary, giving bonds, purchasing goods at wholesale prices on orders from members of the Order accompanied by cash, and attending to complaints regarding goods when there are any. He may also act as a selling agent. When the resources of the State organization are sufficient, this plan contemplates that all expenses of its enforcement will be paid out of the fees and dues of the Order, out of that portion of them remitted to the State Alliance treasury, so that a member, paying his \$2 a year dues, has nothing further to pay, and is entitled to all the benefits of the system. In this system each member keeps his own accounts. The plan is capable of including any number of people on equal terms and offers its benefits equally to all, the only requirements from each being payment of the dues and cash with orders. No more capital stock, and assessments, and intricate book-keeping, and a few getting rich and the many making nothing, for Alliance men.

The plan for a manufactory or mill is this: The cost of it is ascertained; is apportioned to the male members in a local Alliance, or in a county or a State, so as to show the cost to each one if the enterprise goes on and all contribute; and the opinion of the membership is then asked as to the advisability of the proposed undertaking with information as to how many will contribute and how much. Response being favorable, the money is collected, but such money is treated as a contribution, a gift; there is no stock, but the money is used directly to put up the factory or dock or whatever it may be, which, when erected, is operated for the benefit of all the members of the Order in the jurisdiction within which the enterprise was undertaken, whether they contributed or not, for new members who come in afterward as well as for those who were members when the enterprise was undertaken. Title to such enterprise vests in a board of trustees, as trustees, for the whole membership of the Order in the jurisdiction within which the enterprise was undertaken. The price of the product is put at just sufficient, or a trifle more, to cover operating expenses and repairs. Consequently, members get the product at practically cost; they receive their dividends in the shape of reduced prices, in a direct way, instead of round about through the absorbent device called "stock," upon which "assessments" are heaped. The enterprise is under the general management of the trustees, who should be selected because of the sincere earnestness previously manifested by them in all the affairs of the Order. They may hire a competent manager. The board may be completely changed each year or other stated term, so that there is but small opportunity for dishonesty, especially if a detailed printed monthly statement is required.

By this plan starting with a "contributed sum," a small amount of generosity or Christian spirit of voluntary helpfulness to all is put with the selfish spirit of money-making, modifying it, and modifying the system of co-operation by excluding "stock" from it, making a new system, the benefits of which may be extended to all members, and on equal terms to all, which terms are: Payment of the dues of the Order, and cash payment for the product. "Capital stock" is the starting point of all the evils which attend the ordinary form of business co-operation. Upon it are founded the frequent and expensive assessments by which poor men are "frozen out," and by which, with the aid of an intricate and easily manipulated system of bookkeeping, the money benefits of co-operation are acquired in each case by a few in the long run. The "stock company" system invites dishonesty on the part of managers by the opportunities for dishonesty which it offers. "Capital stock" and "credit" are the two great evils of the stock company system of co-operation when its use is attempted by reform movements, and an elaborate system of bookkeeping or credits is a most efficient ally to them.

The Alliance plan is a step forward in the science and art of co-operation. Eschewing "stock," all things else are easy, and better ways become plainly apparent:

FRANK P. COOK.

A BUSY PRESIDENT.—In response to a request calling for President Cannon's absence from home, he lately writes as follows: "I am very busy all the time. My correspondence has increased so much lately that if I miss a few days I am swamped with letters. I have a large correspondence, East, that must be attended to promptly," etc.

## A Prominent National Alliance Man Coming.

## Pushing the Insurance Work.

Bro. Alonzo Wardall, of Huron, S. Dak., has been in Washington the past week in attendance upon the semi-annual meeting of the National Alliance Executive Board, of which he is an active member. He goes from here this week to meet the State Committee of Indiana and Illinois, to arrange for the location of the place for holding the next annual session of the Supreme Council, the selection of the place having been left to the Executive Board by the last Council, with the condition that it be located either in Indiana or Illinois. From there he goes with President Polk and Hon. Jerry Simpson to La Crosse, Wis., to attend the annual meeting of the open Alliance of that State by invitation, and from there to Portland, Or., where he is to assist in organizing the

## Oregon State Alliance

On July 8th. He will, while on the coast, visit the Alliance in California, and if Washington is ready, organize the State Alliance there.

Bro. Wardall, as most of our readers know, has charge of the life-insurance feature of the Alliance work, and is seeking to introduce it in all the States as rapidly as possible. His plan is to have it adopted as an official feature by each State, by means of a co-operative degree, to be known as the State Branch of the National Alliance Aid Association, to be conducted by a manager selected by the President and executive of the State Alliance and approved by the management of the National Aid Association, who shall in turn be under the control and supervision of the National Alliance officers.

The plan is almost identical with the Anolent Order of United Workmen, except that it is optional instead of being compulsory, and no one will be accepted unless able to pass a careful medical examination.

By this means, our members can carry their own insurance (and none need it worse than the farmer) at simple cost of actual death losses, and a minimum expense account for clerical labor performed, keeping the money all at home, in their own State, under their own control and management, and greatly build up and strengthen the Order.

It is proposed to issue \$1000 and \$2000 policies at present, assessing for one death loss in advance, so that the money will always be on hand to pay a loss as it occurs. Long years of experience with society companies show that the average annual cost per \$1000 of insurance carried is from \$9 to \$12, while in old-line companies it is (partly according to age, at date of application) from \$20 to \$60.

The plan has been in operation two years in some of the Northwestern States, and they have a membership large enough to pay a policy in full, and it is growing rapidly. Several States have already approved of it, and it will be presented during the summer to the rest of them for examination. It meets with the hearty approval of the officers of the National Alliance, most of whom carry policies in it; and the plan is recommended to the thoughtful consideration of the Order.

Arrange to hear Bro. Wardall on the subject; he has it all at his tongue's end.

The Executive Committee are also zealously engaged on a plan for a national mutual farm fire insurance company, as directed by the last Council, and hope to have it in shape for the annual session. There is no one reform in our entire system of doing business of more financial importance than in insurance. We waste annually hundreds of millions of dollars on a system that brings almost as much disappointment as relief, and we pay three dollars where the actual loss is only one, and worse, if possible, we send nearly all the insurance money, three or four hundred millions of dollars annually, to New York, London and other great money centers, where it accumulates and is sent back to us on mortgage loans, thus becoming a great instrument of oppression.

One of the objects of the Order is to remedy these things, and Bro. Wardall should be encouraged in the good work.—*Nat. Economist*

## Nevada County Alliance Organized.

EDITORS PRESS:—The farmers of the hills are fully alive to the great movement of the wealth-producers and tillers of the soil, and though somewhat removed from many of the grievances that affect our brothers of the plains, we are still gathering and send fraternal greetings. Bro. Cornell, State Organizer, has been with us for the past three weeks and doing good work. He organized five Sub Alliances, with two more to come in in the near future.

On Monday, June 8th, with a full representation from the Sub Alliances, Bro. Cornell, at Rough and Ready, organized the Nevada County Alliance. The following officers were elected: Bro. S. A. Winn of Lone Valley Alliance, Pres.; Sister M. B. Church of Indian Springs, V. P.; Hattie May Winn of Lone Valley, Sec.; Bro. W. H. Davy of Pleasant Valley, Treas.; Bro. E. E. Black of Rough and Ready, Lect.; Sister S. A. Barnes of Lone Valley, Chap.; Bro. F. Morrill of Indian Springs, D. K.; Bro. I. Sworts of Pleasant Valley, Asst. D. K.; Bro. W. J. Sanford of Pleasant Ridge, Stew.; Bro. T. Horton of Indian Springs, Sgt. After installation of officers, a vote of thanks was tendered Bro. Cornell, when the Alliance

adjourned to meet on the first day of July next, at 2 o'clock P. M.

From the enthusiasm of the delegates, it was evident that all thought it the inception of a movement that was destined to go marching on, until it embraced within the fold every agriculturist in the county whose eyes were not turned inward and whose neck was clear of the collar marked "C. P. R. R."

HATTIE MAY WINN.

Grass Valley, June 10.

## Alliance County Notes.

## Fresno.

A basket dinner was held June 14th, under the auspices of the Selma Farmers' Alliance, at the I. O. O. F. hall, Selma. A general good time was enjoyed by all present. At the regular meeting of the Alliance at 2 P. M., the President, S. B. Holton, proprietor of the Selma Packing House, introduced for discussion, "The Future Prospects of the Raisin Industry." He was followed by J. L. Gilbert, E. Dudley and other large vineyardists.—C. F. WALKER, Sec., Selma, June 14.

## Lake.

The next meeting of the Farmers' Alliance will be held at Frasier's Hall at 2 P. M. on Saturday, June 20th. All the farmers of the county are extended a cordial invitation to attend this meeting. Business of importance and other matters of interest will come up.—*Lakeport Avalanche*.

## Los Angeles.

Members of the Farmers' Alliance and the I. O. F. have in rehearsal the two-act drama, "The Last Leaf," and the farce, "Thirty Minutes for Refreshments," which will be presented on the evening of June 26th, for the joint benefit of the above societies.—*Long Beach Breaker*.

## Nevada.

Organizer B. Lette Cornell formed a branch of the Farmers' Alliance at Pleasant Ridge on June 1st with 14 members. The officers are: R. McKelvey, President; W. J. Sanford, V. P.; Mrs. M. M. Mason, Sec'y; S. J. Ware, Treas.; Mrs. Flora McKelvey, Chaplain; A. W. Reed, Lecturer; R. Ridinger, Doorkeeper; Mrs. J. L. Bishop, Asst. D. K.; A. C. Mason, Steward.—*Grass Valley Tidings*.

## San Diego.

The San Ignacio Alliance is a model of what such an organization should be. Instead of wasting precious moments in bickering and debating over points of order and other useless and profitless questions, as soon as the beautiful opening ceremony was over, the Divine blessing implored on the great Order and the mighty work it has undertaken to do in behalf of humanity—and the initiatory ceremony gone through with, and two young farmers and a farmer's wife added to the great army of reformers—a discussion followed on some of the great questions of the day.—*Winchester Plowshare and Pruning Hook*.

## Santa Barbara.

Pleasant Valley Alliance, at their last meeting, accepted the invitation to join in the procession on the Fourth of July and take part in the general festivities of the day. The Alliance had quite an interesting session. Many subjects of interest were discussed, and for want of time, much was left over until next meeting. On Wednesday evening, 24th inst., the election of officers for the ensuing year will take place, also delegates to the County Alliance—to be held a Lompoo July 1st—will be voted for. The State Lecturer will be present at Lompoo and will deliver a public address.—*Santa Maria Times*.

## Santa Clara.

The Lincoln Alliance, No. 6, on June 12, gave an entertainment in Cupertino. The following program was presented: Music by the Cupertino band; recitation, "Poor Little Joe," Melvin Vandine; piano solo, Miss Mabel Crossley; violin solo, Miss May Williams, selections on violinello, Gus Williams; cornet solo, A. E. Williams; recitation, Miss Ella Glendenning; vocal duet, Ella Lydrand; piano solo, M. O'Connell; recitation, Wm. Heney. After the program the floor was cleared and dancing inaugurated. Refreshments were served at midnight by the ladies of the Alliance.—*Mercury*.

## Solano.

The Dixon branch of the Alliance held a meeting last Saturday, at which there was a good attendance. The membership now numbers 25, and a large number of applications have not yet been acted upon. It is probable that the Alliance will attend the open meeting of the Grange on the 20th inst.—*Dixon Tribune*.

## Ventura.

Siml boasts of a Farmers' Alliance which has a membership of 40 or more members, which meets every two weeks.

## Tulare.

The Lemoore Alliance Enrlt Packing Co. filed articles of incorporation on June 4. Principal place of business, Lemoore; capital stock, \$100,000, divided into 4000 shares of the par value of \$25 each; amount actually subscribed, \$1600, as follows: M. P. Hatch \$100, G. W. Sterling \$100, A. B. Buckner \$100, W. F. Burton \$25, J. W. Harris \$50, J. F. Johnson \$50, W. V. Buckner \$100, Joel W. Williams \$100, E. J. Gibson \$100, Z. D. Beall \$50, A. M. Field \$100, John L. Kurtz \$300, Stiles McLaughlin \$100, A. D. Cridge \$25, J. H.

Fleener \$25, D. P. Nidiffer \$50, J. A. Beaver \$25, H. W. Byron \$200.—*Visalia Times*.

Yuba.

EDITORS PRESS:—Having received a letter from the Secretary of Wheatland Alliance asking me to meet with them at their next meeting (June 13) and instruct them in the secret work of our Order (Bro. Cornell having been called away on account of sickness), I accordingly was on hand. Nine candidates were initiated and several applicants elected. All the members seem interested in the cause and are pressing onward with eagerness. The Alliance in Sutter county is progressing slowly but surely.—W. W. STEWART, Yuba City, June 14.

## Farmers' Alliance Demands.

As there is considerable interest just now in the policy of the Alliance, I give below a brief statement of all the demands but the first, which is taken verbatim from the *National Economist*, the official organ of the F. A. I. U., published in Washington, D. C. Becoming tired of petitions that were treated with contempt, or pigeon-holed into obscurity by a committee to whom they were decorously referred for that express purpose, the Alliance formulates demands in the name of the people and proposes to vote them into laws. The Alliance is in dead earnest—means business. Its demands are not promulgated for fun. They ask and should receive a fair consideration and discussion by every thinking, honest voter, and in the near future will require a decision pro or con at the ballot-box.

Further, the Alliance is "non-partisan" and does not intend to become a third party. It will not put up a ticket unless that last resort is forced upon it. It asks for justice, but will not accept a stone, an excuse, not be wheedled or side-tracked from its purpose. But let the demands speak for themselves—the spirit of '76 lives in every word and principle.

Demand 1st—We demand the abolition of national banks. We demand that the Government shall establish sub-treasuries or depositories in the several States which shall loan money direct to the people at a low rate of interest, not to exceed two per cent per annum, on non-perishable farm products; and also upon real estate, with proper restriction as to land and amount of money. We demand that the amount of the circulating medium be speedily increased to not less than \$50 per capita.

2d. A law to effectually prevent dealing in futures on all agricultural and mechanical products.

3d. Free coinage of silver.

4th. A law prohibiting alien ownership of land; also the reclamation of all lands now held by aliens and foreign syndicates, and by railroads in excess of their actual needs, that the same may be held for settlers only.

5th. The repeal of all laws that build up one industry at the expense of another; removal of tariff tax on necessities of life; graduated tax on incomes; revenue of Government limited to an honest and economical expenditure.

6th. The Government control of telegraphs and railroads and removal of existing abuses.

A remark on demand 1st. It embodies a financial policy. It wishes the Government to put its money directly to the people instead of compelling them to pay interest for the simple privilege of using their own money. If money is not the peoples' whose is it? The Alliance does not object to paying interest, or a tax, from 8 to 25 per cent on money the whole people use, if that tax were paid to the Government, thus diminishing other taxes; but the Alliance objects to paying this tax (interest) to a mere private corporation, thus unjustly enriching a few individuals at the expense of the great mass of the people. It believes that there is a fair, safe method of distributing money to the people direct. If Government can loan money to the banks on good security at two per cent (which it does, it can do the same thing to the whole people direct. The fact is, the so-called national banks were suggested by a few Jews and London bankers who took an unpatriotic advantage of the Government during time of war, and need not longer be perpetuated. S. P. Chase is on record as saying their establishment was the greatest mistake of his life.—*G., in Kern Co. Echo*.

## Alameda County Alliance.

EDITORS PRESS:—The Executive Committee of the Alameda County F. A. & I. U. met at Niles on June 6th and transacted the necessary business which came before it. The most important was fixing a date for the County Convention which is to be held at Niles.

The Fourth of July cuts such a wide swath in the first week of July that it was found rather difficult to pick a satisfactory date; however, July 1st was selected finally as the most suitable.

Invitations are extended to the delegates of all Sub Alliances to bring basket lunch. Niles Alliance will provide coffee, tea, dishes, etc.

A program or order of business was arranged, and among other things each Sub Alliance is requested to furnish five minutes' entertainment—speaking, recitation, singing, dancing, etc., after the County Lecturer is through.

To sum up briefly, the County Convention meets at Niles town hall Wednesday, July 1st, at 10 o'clock, and a good turnout is expected.

H. OVERACKER JR.,  
Centerville, June 13. Sec'y Ex. Com.





### Contrasts.

I shall not come to the heavenly court  
As I enter your ball to-night,  
In tissues wreathed with flowery sport  
And jewels of haughty light.

Bearing on shoulders stiff and straight  
The marble of my face,  
Moving with high and measured gait  
To claim my yielded place.

Poor narrow souls! your easy spite  
Moves this enforced disdain,  
I cannot vanish from the fight  
Other than crowned or slain.

The russet garb of penitence  
For me was lighter wear  
Than all a queen's magnificence,  
A prince's merrivere.

Unloose, unloose your chains of pride,  
Set my vexed spirit free,  
That I may follow my angel guide  
In glad humility.

For I would hearken the sentence deep,  
Abide the lifted rod,  
And sink, like a chastened child, to weep  
In the fatherhood of God.

—Julia Ward Howe.

### Ethel's Chaperon.

[Written for the RURAL PRESS by ELSIE ANGEL.]

"Just a month ago," sighed Miss Nash as she glanced dejectedly at the rocking-chair where her sister had been accustomed to sit, "and how I miss you, Prue." Then she wiped the tears from her eyes and resumed her knitting, thinking of the years when they had been inseparable and so happy in each other's companionship. As girls, they had been quiet and sedate, and unappreciated by the sterner sex; and at thirty-five, they had settled into a state of mature spinsterhood, as women are apt to do who take life seriously in their youth. It never entered into their thoughts that any change would come, and one evening, they plodded off to a church social with their usual donation of sponge-cake, expecting to sit together and talk together and walk home together as usual, when the pastor surprised them by introducing a gentleman, who, instead of courteously greeting them and then rushing off to devote his attention to younger and prettier women, had remained with them all evening, escorted them home, and, after a few weeks' acquaintance, had succeeded in winning Prudence for his wife, and taken her to his home in another State. A month had passed, the dreariest, saddest month in her life for the sister left in her loneliness, behind. She could not get accustomed to her solitary walks or to the silence of her room. She shrank from going out of evenings alone. The sighed and wept almost continually; but found some consolation in building air-castles, which, at times, checked her tears and brought the color to her cheeks. If Prudence had been sought and admired, why should not she, Rachel Nash, hope? She *did* hope. It was the one drop of sweetness in her bitter cup. But Prudence had been gone a month, and Miss Nash had not been out one evening since. To night, the Reading Circle met. How she would love to be there! If she only knew of some one to go with; but the people in the "Wilmington" (the house where Miss Nash stayed) were gay and fashionable and fond of more exciting pursuits. If she knew of some neighbor—the Johnsons were the nearest. Yes, there was Cora. Miss Nash meditated for a moment, and shook her head. Well, there was Myra Brooks; but unfortunately she was engaged. Miss Nash sighed, leaned back, closed her eyes and built another air-castle, in which figured a loaf of sponge-cake, a church social, the pastor introducing a gentleman, a wedding! Then she came back to her neighbors. The next nearest after the Brooks were the Fletchers. Miss Nash threw down her knitting and jumped up with energy. "Ethel Fletcher!" she exclaimed. "Yes, she is so bright and intelligent. I shall ask her."

In a few moments, Miss Nash was ready for walking, and on her way to Mrs. Fletcher's pretty home in a retired tree-shaded street. As she opened the gate and entered the garden, she heard soft strains of music, so she stepped gently on the porch and looked in the parlor window. Yes, Ethel was there, and alone. How lovely she looked in her white gown, with a pink fleecy shawl about her shoulders! What a charming profile! What a shining mass of golden-brown hair! Miss Nash stood and admired, reluctant to disturb her, and then tapped gently on the window. Ethel turned to see the lady smiling at her. "I thought I wouldn't ring, as I heard you playing," she said, as Ethel met her at the street door. "I hope I am not unwelcome, dear."

"No, no!" answered the girl vivaciously.

"I am only too glad to see you, Miss Nash. I feel so stupid this evening."

"Indeed!" exclaimed the visitor, sinking into the proffered chair, and glancing from Ethel's bright face around the pleasant room. "How can you feel stupid in such a cheerful home?"

"Nevertheless," answered Ethel, shrugging her shoulders, "I don't believe any one suffers from dullness as I do. Since I left school, I don't know what to do with myself, and the evenings are tiresome, in spite of music or books to enliven the time. I wish that mamma did not have such strict ideas of propriety, and that she would let me go out once in a while with Laura Grey and other friends, but mother thinks that young girls should be attended by a chaperon—just as though we can always have one at our command! I wish I had a homely brother that no other girl would look at, or a rich old uncle that idolized me—" At this point, Ethel burst out laughing. "I know you think this very ridiculous, Miss Nash, but the very moment you tapped on the window, I was dressed for a party and just stepping into a carriage provided by the rich old uncle. I love to build air castles, don't you?"

Miss Nash's face was unusually rosy, but it may have been from laughing. At all events, she did not answer the question, and said she was grateful for Ethel's confidence, and thought she could suggest a remedy for dull evenings spent at home. How would Ethel enjoy her companionship to lectures, concerts and church entertainments? Ethel assured Miss Nash that she would be delighted, and even called that lady an angel for coming so opportunely to her rescue.

"And that reminds me," said Miss Nash, "that I came this evening to invite you to join our reading circle. We meet every Monday evening in one of the parlors of the Lowell Square church. I have attended two years, and find it very interesting and profitable. I am sure an intelligent girl like you would enjoy the circle exceedingly."

Ethel was profuse in her thanks, and Miss Nash expressed her gratification at having a friend and neighbor who was so fond of to accompany her. It might help to reconcile her to her sister's marriage.

"I miss Prudence so much," said Miss Nash sadly, while the tears gathered in her eyes. "We depended so entirely upon each other, and I thought we would never be separated."

"Yes, her marriage was a great surprise to every one," answered Ethel honestly; "and it was so natural to see you together, that I always feel like asking: Where is your sister? But, never mind, Miss Nash, I will try to fill her place."

"Thank you, dear," smiled the visitor appreciatively, at the same time rising to take her leave. "Your mother, of course, is out, or I would have seen her."

"Yes, she went to Aunt Louisa's to tea, and after tea, whilst. Tea and whilst are always the program there," said Ethel ruefully. "I escaped going because my last cold still lingers affectionately. It hates to leave me." Miss Nash smiled.

"You are a droll girl, Ethel, and it is evident that your mother will never make an English woman of you, although she will never be anything else herself. She is as reserved and exclusive as when she came here a bride, but very charming in her home life, as it has been my good fortune to discover. Remember me kindly to her and tell her that I shall call in a day or two to have a talk about our reading circle. Good night, Ethel."

Then the friends parted in the heat of spirits, each feeling that she would suffer less in the future from loneliness or dullness.

Mrs. Fletcher gave a ready consent. "I have no objection whatever to have you chaperoned by Miss Nash," she said. She is a well-bred, dignified woman, and so much older than you, Ethel, that I believe her companionship will be far more beneficial than that of a spoiled, flighty girl like Laura Grey."

Henceforth there was a change in Ethel's life. Miss Nash was often at the Fletcher's street door, "Just to see Ethel for a moment, if you please," or Ethel was sitting up the stairways and through the halls of the Wilmington to Miss Nash's room to ask if she could go to the Charity fete on Friday night, or to make arrangements for attending an art exhibition or an Orange Tea farther off in the future, and Miss Nash never once said that dreadful word—no. Then there was the reading circle, with its agreeable president and intelligent members that were so delightful to meet. Ethel's air castles were not so numerous as formerly, for there were papers to be prepared on historical, philosophical, literary or art subjects.

How wise Ethel felt as with tablet and pencil she jotted down items from books of reference in the great libraries of her city! How pityingly she glanced at the girls in search of the frothiest novels! With what pleasure she prepared her papers and with what a glow of delight she received the approbation of the circle when she read them! Mr. Harold, the president, lingered by Ethel's chair during the recess, and some way he fell in the habit of escorting her and Miss Nash to their homes, and succeeded in making a very favorable impression upon both the ladies.

Ethel in her enthusiasm tried to get Laura Grey to join the circle, but in vain. Laura said airily that she wanted to get rested from her school studies first, and when she had forgotten everything she had learned, which she was

trying to do, she might take the reading circle into consideration. But Laura was also jealous of being supplanted by Miss Nash, and said such spiteful things about her, and wrote notes to Ethel as an excuse to insert something sarcastic about *Miss Nash*, that the two girls so warmly attached in their school days, almost became strangers, for Ethel loved Miss Nash with the fervor so often felt by a younger for an older friend.

Six months passed away very pleasantly, and then Ethel became conscious that a feeling of bitterness was gaining a mastery over her sunny nature. At first she was surprised at discovering a certain disagreeable trait of disposition in Miss Nash which she generously tried to overlook. Falling in this, she became amused and irritated by turns, and then thoroughly annoyed and indignant, she carried her troubles to her mother.

"Miss Nash speaks as though I am the same age as herself, yet she knows better," said Ethel. "When gentlemen are attentive, she says they are sensible to prefer our society to that of chits of girls. She refers to things that took place when she was a child as though I had been her playmate. You know, mamma, I cannot be so rude as to contradict her, for she is so kind and pleasant otherwise."

Mrs. Fletcher explained that Miss Nash belonged to a class of women that made themselves ridiculous by being foolish about their age, and that she probably wanted people to believe that she was as young as Ethel.

"I notice she is more vivacious than she used to be," continued Ethel thoughtfully; "and she seems young to me, yet you would think that she would occasionally refer to herself as my elder when I am so much younger than she is."

"Perhaps Miss Nash prefers to deceive herself," rejoined Mrs. Fletcher, quietly.

"Yes," thought Ethel, lapsing into reverie. "And she deceives herself about Mr. Harold also. He never called to see her, or escorted her home until I joined the circle, yet she talks as though she were the attraction. Well, if she succeeds in making him believe that I am as old as she is, he will drop us both before long."

Mrs. Fletcher had not been blind all these months since Miss Nash had become her daughter's chaperon. She had noticed a growth of sprightliness in her step and bearing, a vivacity in her eyes and smile, a tendency toward youthfulness in her dress, all of which would have been commendable if it had only been accompanied by common sense.

Six months before, Miss Nash had been a staid woman looking fully her thirty-seven years in her prim black or gray costumes. She had discarded them, and become an imitator of her fair young friend. If Ethel wore blues or greens Miss Nash did likewise. Her shawls and wraps were exchanged for jaunty jackets and pretty shoulder capes; her plainly parted hair, and mature bonnets had given place to elaborate bangs surmounted by stylish toques, or feather-laden hats. A few months' intimacy with Ethel Fletcher had transformed her into a younger, brighter, more attractive woman, and Miss Nash knew it and rejoiced. But she spoiled it all by becoming silly and sending Ethel, as we have seen, with irritated complaints to her mother.

No one had noticed the transformation in Miss Nash's appearance with greater surprise than Mr. Harold and he came to the conclusion that she must be much younger than he had supposed, especially as she was in the habit of speaking of herself and Ethel as having been children together. The latter he considered very youthful looking but he thought both ladies were older than he was. Ethel, however, had captured his heart, and as he could only approach her through the influence of her chaperon he valued Miss Nash's friendship highly. He never saw Ethel save in her presence. Even the calls he had made upon the latter in her home, had been in the company of the elder woman, for she had given him to understand that such were Mrs. Fletcher's strict ideas of propriety that he would not be admitted otherwise. She little dreamed, poor woman, that his appreciation of Ethel only increased because there were obstacles in the way, and she became confidential to Ethel, and hinted of delicate attentions that Mr. Harold was paying her, and that when a certain event took place, Ethel must witness the ceremony as maid of honor.

But the time came for the circle to adjourn for the summer. The members bade each other good-bye, and Mr. Harold walked home as usual with Ethel and Miss Nash. In some way the conversation turned upon a recent wedding which had excited much comment on account of the disparity of years between the couple, but in this instance, it was the seniority of the bride that created the stir and gave people something to talk about.

"Is it true that the lady is so much older than her husband?" asked Ethel. "Yes," answered Mr. Harold. "She is over forty, and he is just of age."

"What shocking bad taste!" exclaimed Ethel.

"I don't agree with you Ethel," said Miss Nash. "It may be a very happy marriage like Burdette Count's, Lord and Lady Beaconsfield's and scores of others."

"My mother is my father's senior in years," rejoined Mr. Harold, "and there never was a more devoted couple."

"There!" exclaimed Miss Nash in triumph. "That may be," said Ethel; "but for myself,

I think the husband should be the elder. I would not marry a man younger than myself."

"Are you sure of that, Miss Fletcher?" asked Mr. Harold earnestly. "Yes," Ethel answered with emphasis. After that a change came over the spirits of the three. Ethel made a gay remark, but there was no response from Mr. Harold. He seemed attracted. Miss Nash laughed joyously, and became unusually talkative; while Ethel groaned in spirit and wondered if she and Mr. Harold were going to drift apart from this time. It seemed so.

"Well, here we are at your gate, Ethel," said Miss Nash sweetly.

"I want to ask a favor, Miss Fletcher," said Mr. Harold, very seriously. "Will you go on to Miss Nash's? We will soon return."

"Do, Ethel," I shall be charmed," echoed Miss Nash politely, "that is, if you are sure your mother will not object."

Ethel simply assented to her escort's appeal and continued her walk, and she noticed when she bade Miss Nash good-night that there was an unmistakable sharpness in that lady's demeanor toward herself.

"Now," said Mr. Harold, as they retraced their steps toward Ethel's home, "I trust you will take something back you said to-night. Will you?"

"What is that?" she asked, rather faintly.

"That you would not marry a man younger than yourself, for you must know that I love you, Ethel."

"Mr. Harold," asked Ethel, "Will you tell me your age?"

"Twenty-five," he answered in a despairing voice.

"Then how old do you suppose I am?" she inquired rather petulantly.

"I don't know; but if you and Miss Nash are of the same age, you must be older than I am."

"So I look thirty or more?" (very reproachfully).

"No indeed," answered Mr. Harold warmly. "I thought you were about twenty, until Miss Nash informed me to the contrary." Then as a sudden light seemed to break upon his mind, he continued: "Is it possible that she —"

"Well," interrupted Ethel, "here we are at our gate again, and I can't take back what I said, for" (laughing and blushing) "it is not necessary. You are four years older than I am." Then Ethel extended her hand with charming frankness. "And if you will speak to mamma —"

Well, they became engaged, and in course of time there was a wedding in which Laura Grey figured as maid of honor, and she and Ethel ever afterward remained warm friends; but Laura always entertained a lurking dislike for Miss Nash, for whenever her name was mentioned she said sarcastically:

"Miss Nash? Ah, yes! She was one of us 'in the days when we all went gypseying,' you know."

But Ethel was too kind-hearted to cherish resentment, and always treated her former chaperon as an old friend. Indeed, it was in the Harold's home that Miss Nash met the man whose name she now hears; but to this day she speaks of herself and Ethel as having been girls together, and she has persuaded both herself and her husband that Mr. Harold was one of her rejected suitors.

### Blackboards for the Children.

EDITORS PRESS:—If you have children, be sure and have a small blackboard nailed upon the wall in a convenient place. A good wide board, say 18 inches and about 2½ or 3 feet long, makes an excellent one, or two 12 inch boards with a cleat at the ends will do. Have it well planed on one side and then paint with black paint, two coats. This makes a good board for chalk, or there is a preparation to put on wood or pasteboard that is good for slate-pencil. They are so nice to put the golden text on for the children to learn, and if father or mother wants to learn some charge or quotation for the Lodge, there it is to catch the eye when in the house, or when we are all interested in some mathematical calculation, it can be done before all eyes. Be sure and have chalk or pencil close to the board, and you will never want to be without the board if you once have one.

Los Alamos.

MRS. J. HILTON.

### Chaff.

THE man who lives by his brains certainly has not a visible means of support.

COBWIGGER—Boscowan is very good to his wife. He keeps two nursemaids to look after the children. Brown—He has to. His wife keeps three dogs.

MISS OLOMAID—Your room is very pretty, Miss Rosebud, but I wish you would drop in and see mine. It's a perfect museum of curios. All presents, too. Miss Rosebud—Birthdays presents?

MRS. GRUBBS—"And so your daughter's wedding is set? Don't you think she is too young to marry?" Mrs. Dabbs—"No, indeed. She has ruled the whole family for three years."

MISS DE PRETTY—I don't see how you whistle through your fingers that way. I could never do it in the world. Mr. Goodheart (wishing to compliment her delicate little hands)—No, Miss De Pretty, if you should try it your whole hand would slip into your mouth.



## YOUNG FOLKS' COLUMN.

## The Crooked Man's Story.

[Written for the RURAL PRESS by MARY E. BAMFORD.]

Little Jack Horner was sitting on the stile. It was the same crooked stile where the crooked man found a crooked sixpence, you remember. Jack Horner was resting there, when, on looking up the road, he chanced to see the crooked man himself coming toward him.

"Why, how do you do?" said Jack cordially, as the Crooked Man drew near.

"I'm not very well to day," said the Crooked Man, sitting down with a sigh. "I've been helping Peter Piper pick his peck of pickled peppers, and I'm tired."

"And how is the crooked oat that you bought with the crooked sixpence?" asked Jack.

"She's very well," said the Crooked Man. "She's gone over to the House that Jack built to see if there's another rat getting at the malt."

"I hope no dog will worry her this time," said Jack.

"Oh, no," said the Crooked Man, "that dog won't bother her any more, for he has been tossed by the cow with the crumpled horn. Didn't you hear about that? The dog's dead."

"It is strange that oats and dogs don't like one another better. They almost always quarrel," said Jack. "What do you suppose is the reason?"

"Oh, I know," said the Crooked Man, "my crooked oat told me that story."

"What is it, please?" said Jack Horner.

"Well," said the Crooked Man, leaning back on the stile, "I'll tell you. You know, long ago, it used to be the fashion in a certain country to like oats very much, and some folks even went so far as to make mummies of oats after they died. Well, in one of the cities of that country, there lived a fine oat, and all this cat's ancestors had been mummied away back to the tenth grandfather and grandmother. This made this fine oat of great importance indeed in the eyes of those oats that only had ancestors mummied back to the second or third grandfather and grandmother, and such cats called him the Ten-Ply Cat, to distinguish him from the common crowd of Two and Three-Ply Cats."

It was a fine sight indeed, to see the shelf on which Ten-Ply's ancestors sat all in a mummied row.

One day, when Ten-Ply had gone to look at this shelf, he discovered with horror that one of his mummied ancestors had been tipped over.

"Whoever has done that deserves to have no oatnip for a month," said Ten-Ply, as he crawled up to the shelf and carefully clawed the mummy back into position once more. "I shouldn't be a bit surprised if it were one of those good-for-nothing 'Three-Ply cats.'"

"Neither should I," said a voice, and, looking around, Ten-Ply saw a curious creature standing near by.

"Who are you?" said Ten-Ply.

"I am a person much older than the ancestor that you have just picked up," said the visitor, bowing politely. "In fact, I should hesitate to tell you, my friend, how old I am. I belong to a most noted gentleman who allows me, once in a while, to ramble out alone. But I must tell you that I have in past days seen all of your lamented ancestors while they were yet living. Ah, they were fine cats!" and the visitor sniffed tearfully at the recollection of past days.

"My, how old you must be!" exclaimed the astonished Ten-Ply. Then, horrified at his own impoliteness, he confusedly said: "Please excuse me, but have you really known all my ancestors?"

"Ah, yes!" said the visitor. "In fact, my friend, I think I will tell you who I am. I am a Dog. I do not suppose you recognise me at once, but I think you have seen me before. I am the Man-in-the-Moon's Dog."

"Why, I do believe you are," said Ten-Ply, after taking a good look at him. "Excuse me for not knowing you, but how came you down here?"

"Well," said the Man-in-the-Moon's Dog, "you know once every few weeks the moon is smaller than at other times, and then there isn't room enough in it for the man and me, too, and so he lets me go visiting till it gets big enough for us both again; and so I thought I'd come and see you this time."

"I'm glad you did," said Ten-Ply. "I'll try and make your real visit pleasant," and so Ten-Ply did, having no prejudice against dogs. The Man in the Moon's dog said he was almost starved, and indeed he looked so, and while Ten-Ply hunted up refreshments the dog explained that it was hard work to get food for dogs in the moon. "You see," said he, "we journey along so fast that we don't have time to stop for refreshments except at just one station. That's the Milky Way, and we don't stop there long enough for me to get more than a few laps of milk before we must be going again. If it wasn't for these rambles of mine once in a while I'd starve to death."

"It's too bad," said Ten-Ply, sympathetically placing before him the best bones to be found. During the few days that the Man in the Moon's dog stayed there was great excitement among the neighboring cats. They all came to

see the stranger, and they looked at Ten-Ply with greater respect than ever on account of his having such a distinguished visitor. The dog, too, flattered Ten-Ply, and went with him daily to see the ten mummied ancestors, and told such wonderful stories of the great things that he had seen those ancestors do, that Ten-Ply's self-esteem grew at a tremendous rate.

At last, one day, the dog said: "I am sorry, but I see that the moon is getting bigger and I think I must be going home. The men will be expecting me. I only wish I could do something for you, my friend, in return for all your kindness to me."

"Well, I think you can do something for me if you will," said Ten-Ply.

"What is it?" asked the dog.

"Take me home with you to the moon," said Ten-Ply, "and let me ride with you in it; that will be something that none of my ancestors ever did."

The dog hesitated. "Well," said he, at last, "if you want to do so I suppose you can."

And so Ten-Ply, in high spirits, bade goodbye to all the common Two-Ply oats, who looked at him with greater admiration than ever. "How great you will be," said they all. Ten-Ply very proudly accepted all compliments paid him, and the two travelers set out the next afternoon on their journey.

They hurried onward, for they wished to be on top of the eastern mountains by the time the Man-in-the-Moon arrived there. They succeeded in reaching their destination in time, and as soon as the Moon appeared, they stepped on board.

The Man-in-the-Moon rather objected to taking Ten-Ply at first.

"I'll be glad to have you back," said he to the Dog, "but I'm almost afraid the extra load will make the Moon too heavy."

However, the Dog asked him to try, and so Ten-Ply was received on board, and they all sailed on.

Ah, how proud was Ten-Ply that night, as he looked down from the sky and saw all the Two and Three-Ply cats gazing up at him in undisguised envy! Ten-Ply's vain soul was greatly pleased.

"This is as it should be," said he to himself. "I am far superior to common cats," and he put on such airs that the Man-in-the-Moon was much disgusted.

But Ten-Ply could not be satisfied with one night's sailing. He refused to get off the next night, and the next, and the next. The Dog was thoroughly angry, for every time they passed by the Milky Way there was not time for more than one of them to get any supper. Sometimes Ten-Ply got the milk, and sometimes the Dog did. The Man-in-the-Moon unscrewed the lower part of his lantern and gave it to them to dip up some milk with. This was the only piece of tin-ware in the Moon, since both the Big and the Little Dippers were hung too far away for the Man-in-the-Moon to reach them.

So things were very uncomfortable indeed. The Dog plainly told Ten-Ply that he was one of the most conceited cats that ever lived, but Ten-Ply did not care as long as he saw the Two and Three-Ply cats admiring him from below.

At last, one night, as they were sailing along, Ten-Ply said, "There is the shelf with my ten mummied ancestors on it."

"Do you see them?" asked the Dog, peering over the edge of the Moon.

"Yes," said Ten-Ply.

"Then go and look at them a little nearer," said the Dog, and he gave Ten-Ply a violent push. Ten-Ply staggered, clawed at the Moon, missed his hold, and fell into the depths of air beneath. Down, down he fell, swifter and swifter, through the tremendous gulf of air, toward the earth. Ten-Ply could hear the wails and cries of the frightened Two and Three-Ply cats as they saw him coming.

Nearer and nearer he came. He was aiming straight for the shelf of his ancestors. Ten-Ply shut his eyes, there was a loud thump, and the shelf and the ten ancestors fell in a heap on the remains of their last descendant, a descendant indeed, from a far greater height than they had ever thought of. Ten-Ply was dead.

Great was the mourning among the Two and Three-Ply cats. They each wept eleven tears over Ten-Ply, and solemnly vowed that from thenceforth they would all bring up their children to hate dogs and to have nothing whatever to do with them. "And they've kept their word," said the Crooked Man, as he ended his tale.

Little Jack Horner thanked the Crooked Man for telling the story, and then, leaving the Crooked Man nodding sleepily in the sun, Jack rose and continued on his way toward Mother Goose's house, where he was going to get another pie, and as he went, he sang:

When folks begin to make a muss

About something that's past,

The smaller reason for a fuss

The longer it will last.

AN Irishman, traveling on one of the railways the other day, got out of the carriage for refreshments at a station, and unfortunately the bell rang and the train was off before he had finished his pie and coffee. "Hould on!" cried Pat, as he ran like mad after the train, "ould on, ye spluttering old stame engine—ye've got a passenger aboard that is left."

TEACHER.—You tell me what a secret is Little Girl—Yes'm. It is something somebody tells everybody else in a whisper.

## GOOD HEALTH.

BANANAS AS FOOD AND MEDICINE.—Dr. John Dougall of St. Mungo's College, Glasgow, has a letter in a recent issue of the *Glasgow Herald* on the bananas. He quotes from Stanley's "In Darkest Africa," showing that "for infants, persons of delicate digestion, dyspeptics and those suffering from temporary derangements of the stomach, the flour, properly prepared, would be of universal demand." During Stanley's two attacks of gastritis, a slight gruel of this flour, mixed with milk, was the only material that could be digested. It is odd, also, as pointed out in Stanley's book, that in most banana lands—Cuba, Brazil, West Indies—the valuable properties of the banana as an easily digested and nourishing food have been much overlooked. Dr. Dougall has made some experiments in making banana flour. He concludes that it should be made from the ripe fruit at its place of production. In trying to make it from bananas purchased in Glasgow, he obtained on drying the pulp a tough sweet mass like toasted figs, an appearance probably due to the conversion of starch into sugar. Bananas contain only about 50 per cent of pulp, and of this about 75 per cent is water. They would yield, therefore, only one eighth part of flour.

HUNGER AND INFECTIOUS.—It is a well known fact that hunger predisposes to certain diseases, but it has been reserved to two Turin doctors to demonstrate the increased liability experimentally. Their observations were carried out with the virus of bacillus anthrax on pigeons, a disease to which these birds are, under ordinary circumstances, refractory. They found, however, that six days' total deprivation of food rendered the birds amenable to the virus, on condition that food was still withheld. If, however, food was given at the same time as the virus, then they still successfully resisted infection. Further, when starvation was continued for two days after the inoculation, and food then given, the development of the disease, though not prevented, ran a slower course. Lastly, the virus proved capable of infecting birds well fed up to the date of inoculation, but starved subsequently. The line of investigation is evidently one which admits of further research, but the moral is obvious.

SANITARY SCIENCE.—Sanitary science, says the *Sanitary News*, is a science that does not relate to the earth we live on, or to the heavens we live under, but to the conditions of the homes we live in. We can live on the earth or under the heavens, without knowing much about them, but to live best in our homes, we must know them well. Geology cannot change the conditions of the earth beneath us, or astronomy those of the heavens above us, but sanitary science can change from unhealthy to healthy the conditions of the homes we live in. Is it not, then, a science worthy of study? It touches the highest interests of mankind, cleanses and purifies the present generation, and will strengthen and will glorify posterity. The effects of obedience to its laws are not remote, but immediate. They touch the everyday life of all, and enter into all the relations of life. They give strength and vigor to whatever capacity in which human endeavor is put forth.

TO PREVENT "SOUR STOMACH."—Some physicians prescribe the following as a preventive of "sour stomach": Avoid eating foods which ferment easily, such as sugar, potatoes, and the like. Drink hot water to wash the stomach out, say one cup about one hour before eating. This prepares the organ for the kindly reception of the food. Avoid fluids at meals, unless it be peptonized milk, which really is a semi-fluid food. It might be well to use the peptonized milk for a few days and eat nothing else. Should this not agree with you, eat scraped beef, broiled, using with it but little salt, and dried wholewheat bread. Be careful to not eat too much meat in hot weather, as it is quite heating. You may try for a drink a half-cup of cold skimmed milk, filling the cup with boiling water. Should you not be relieved by following the above, you had better hunt a sanitarium.

THE DOCTOR WHO SUCCEEDS.—A physician who understands human nature, who plays with the baby, makes friends with the children, and listens to the woes of the good wife and mother, says a medical journal, is the fellow to whom the master of the house most cheerfully pays the largest bills. It isn't the medicine that's bottled up, but it's the comfort and consolation that are unbottled that mark the broad line between an unsuccessful and a popular physician.

WE lose about two pounds of water in 24 hours by perspiration, and the more we perspire the cooler we become. There are 27,000,000 pores on the surface of our bodies, which, if placed in line, would extend 28 miles in length.

"GERTRUDE, I see you rejected the head clerk last night." "Why, papa, how did you find out?" "Easy enough—he did the biggest half-day's work this morning that he's done in five years."

THE more wealth a man has the louder his children talk.

## DOMESTIC ECONOMY.

## Cornstarch or Custard.

EDITORS PRESS:—I have a great dislike to soiling milk on the stove, as it sticks so to the pan, so I make cornstarch pudding or custard by wetting up the starch with sweet cream and then pouring boiling water upon it. To our taste it is nicer than with milk. Here is the formula for custard: Two tablespoonfuls of starch made quite moist with sweet cream; three heaping tablespoonfuls of sugar, two eggs well beaten, all added to the starch; then pour boiling water on the mixture (stirring well) till thin enough to suit. Eat without flavoring or add what you like best. MRS. J. HILTON, Los Alamos.

COFFEE.—Tie four tablespoonfuls of coffee in a piece of coarse cheesecloth. Put it in a coffee-pot with one pint of cold water. After it has boiled five minutes, add one pint of boiling water, and keep it hot ten minutes. Keep the spout closed with a cork or paper, if there be no tin cover.

LOAF CAKE.—Five cupfuls of light dough, 4½ cupfuls of sugar, 2½ cupfuls of butter and four eggs. Cream the butter and sugar together and add the eggs, then mix with the dough; add any kind of spices and fruit to taste; put in a mold and set to rise for a short time and then bake like bread.

LEMON SAUCE.—The following is a good recipe for lemon sauce: Cut a lemon in three slices, discarding the tip ends. Boil the slices in one pint of water for a few minutes, having the water brought to the boiling point before putting in the lemon; add one tablespoonful of corn starch, one cupful of sugar and two tablespoonfuls of butter.

MOCK OYSTER BISQUE.—One cup codfish, soaked in cold water and picked into half-inch bits. Put it with one pint of cold water and one pint of strained tomato and boil 20 minutes. Add one saltspoon of soda, one pint of milk, one tablespoon of butter melted and mixed with one tablespoon of cornstarch, one saltspoon of white pepper. Boil up once and serve with fried bread.

SUGARED ORANGE.—Select the lightest colored oranges for this purpose, as they are more acid than the dark. Peel off the rind and slice them, latitudinally or crosswise, about the eighth of an inch in thickness. Strew over them some powdered white sugar, in the proportion of a teaspoonful of sugar to each slice. Let them stand 15 minutes. They are very palatable in fevers, as they serve to cleanse the mouth and keep it cool.

OATMEAL.—Put a teaspoon of salt and a scant quart of boiling water in the top of the double boiler and place it on the stove. When the water boils, add gradually one cup of coarse oatmeal. Cook ten minutes, then place it in the bottom of the double boiler and let it cook one hour. Put a tablespoon of salt in the water in the lower boiler. When done, remove the cover, stir with a fork to let the steam escape. Serve it on a platter.

TRAVELER'S BISCUIT.—Two pounds of flour, three-quarters of a pound of sugar, a quarter of a pound of butter, one teaspoonful of dissolved saleratus, milk sufficient to form a dough. Cut up the butter in the flour, add the sugar, and put in the saleratus and milk together, so as to form a dough. Knead it till it becomes perfectly smooth and light. Roll it in sheets about the eighth of an inch thick; cut the cakes with a cutter or the top of a tumbler. Bake in a moderate oven.

KALE WITH PORK.—Put a piece of salt pork into a kettle of cold water, allowing it to boil fifteen minutes to the pound. Three-quarters of an hour before it is done, have ready, washed and picked over, the necessary quantity of kale, put it on with the pork, without covering the kettle, and boil thirty minutes. When done, drain, put the pork in the center of the dish and the kale around it; garnish with hard boiled eggs. French dressing may also be poured around it.

MACAROONS.—Three eggs, three-quarters of a pound of powdered white sugar, half a pound of sweet almonds, two ounces of bitter almonds. Whisk the eggs till they are very dry, then add gradually a teaspoonful of the sugar at a time, for if too much is put in at once, it will thin the egg. Beat it hard until all the sugar is in. Have your almonds blanched and bruised in a mortar, but they must not be pounded to a paste. Then stir in the almonds, drop a spoonful in a place, on sheets of white paper laid on tins, and bake them in a cool oven till they have just a tinge of brown.

GRAHAM PLUM PUDDING.—Take one and one-half cupfuls of graham flour, one cupful of New Orleans molasses, one cupful of sweet milk, one cupful of raisins and currants (half of each), one tablespoonful of butter, one-half a grated nutmeg, one teaspoonful of soda, one-half teaspoonful of cinnamon, and one well beaten egg. The soda should be dissolved in a little hot water and stirred into the molasses, the spices added, then the butter, milk and flour, and lastly the egg and fruit. Dust a little flour over the fruit before stirring it in. Butter a tin pail well, turn in the mixture after heating it sufficiently, and steam three hours. Turn your pudding out on a pretty plate or small platter when it is done, and serve with lemon sauce.





A. T. DEWEY.

W. B. EWER.

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SAN FRANCISCO:

Saturday, June 20, 1891.

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## Business Announcements.

[NEW THIS ISSUE.]

Spring Wagons—Baker & Hamilton.  
Windmills—Butt & Stephens, San Jose.  
Fruit Graders—W. O. Hamilton, San Jose.  
Wine Presses—W. H. W. R. H. Petaluma.  
Harness—Liebold Harness Co.  
Van Ness Young Ladies' Seminary—Dr. S. H. Willey.  
Poultry—Galt Poultry Yards, Galt.  
Imported Stallions—Holbert & Conger, Los Angeles.  
See Advertising Columns.

## The Week.

The rain promised as our last issue went to press came in rather unusual volume, and wrought much perturbation in fields and orchards, though probably because of the drying weather which followed, the damage to exposed crops and ripening fruits has proved less than was feared. The last few days have been warm and the Signal Service reports another storm at the North, but little is expected of it in this State except along the northwest coast, where they are need to such things in summer, and owe to them their exceptionally late growth of grass and forage crops.

Harvesting is progressing apace. Except in some regions of very slight rainfall, the out-turn of grain is proving better than was anticipated and a respectable surplus is to be counted on, for it is now too late for moth and rust to come in to any extent.

The regular outing season is on, and the country resorts are well patronized.

**ORANGE TREES FROM TAHITI.**—Alexander Craw, the entomologist of the State Board of Horticulture, left on Tuesday, for Los Angeles, to inspect a shipload of orange trees from Tahiti. The ship, the Lena Swaysey, was chartered by some Los Angeles nurserymen to bring over these trees, of which it is said, there are about 1,000,000 on board.

## Will You Favor Us?

We desire as many renewals of subscriptions from subscribers as possible during the next 30 days. As we specially need the money at this time, we hope that those whose subscriptions have hitherto expired, or may soon expire, will make a little effort, if need be, to favor us at this time. Such a settlement, with several hundred subscribers, although the amount is small from each, is, in the aggregate, considerable to an enterprising publisher.

We have placed the price of our paper very low, rating less than \$2.50 per annum, when paid in advance. Yet we much prefer to receive the low rate in advance to \$3.00 per annum later.

We hope also to receive many additional subscriptions from new comers and others who have not yet tested the value of a home weekly farm companion, in this new and progressive field of agriculture. Therefore, let all who can, speak a good word to their neighbors for the RURAL PRESS.

## Better System in the Raisin Trade.

On Monday afternoon there was held in this city a meeting of raisin producers and dealers for the purpose of devising means to overcome some of the difficulties experienced in the raisin trade last season. One of the chief of these was the fact that during a spell of dullness in the Eastern market there were considerable rejections made by Eastern buyers on the alleged ground that the fruit was not up to sample. There was an apparently well-grounded suspicion that had the market continued active throughout the season there would have been few if any rejections.

It was the opinion of those present, according to the *Chronicle* report of the meeting, that the only feasible means for coping with this difficulty was to organize and establish a system of grading. Inspectors appointed by the organization should be maintained in the raisin growing sections, who should carefully examine all raisins offered and brand them in accordance with the rules adopted. When raisins so marked were sold it would be a guarantee that their quality corresponded with the brand, and no rejections would be tolerated of such goods. The grading should properly commence in the vineyards, when the fruit is first gathered, and should be followed up in the packing house. With such a system in vogue the honest packer would be protected against the dishonest one, and the buyer would likewise be assured that his purchases made by sample were up to the quality agreed upon.

Nothing was said at the meeting as to fixing prices for the different grades of fruit, but it is not impossible that some such step may be taken. The proceedings are in direct line with the steps taken recently in Fresno by the producers for the organization of an exchange, by which the fruit will be graded and at the same time prices maintained.

## The Ramie Business.

As it now stands the money appropriated for the promotion of ramie cultivation is not available for that purpose. The Superintendent of Ramie Culture appointed by the State Board, Mr. W. H. Murray, sued the State Controller for his salary before Superior Judge Catlin of Sacramento county, and the Judge upholds the Controller in refusing to pay out money under the Act of the last Legislature, on the ground that the Act making the appropriation for such salary is contrary to the 34th Section of Article 4 of the Constitution, which provides as follows:

"No bill making an appropriation of money, except the general appropriation bill, shall contain more than one item of appropriation, and that, for one single and certain purpose to be therein expressed."

Judge Catlin cites the title of the bill which is this:

"An Act to encourage the cultivation of ramie in the State of California, to provide a bounty for ramie fiber and to make an appropriation therefor; to appoint a State Superintendent of 'Ramie Culture,' and make an appropriation for his salary."

In concluding his decision Judge Catlin said:

"It would be difficult to frame an Act more clearly in violation of the section of the Constitution above quoted. It needs no reasoning nor argument to make it apparent. The mere reading of the Act and the Constitution is sufficient. It is imperative upon the court to disregard the Act, and to hold it null and void."

We are informed that Mr. Murray proposes to carry the matter to the Supreme Court in

the hope of securing a decision which will enable the carrying out of the evident spirit of the law in spite of the technicality which now seems to stand in its way.

## Fruit Shipments.

Refrigerator car companies are exerting a marked influence in the eastward movement of California fruits. It was recently announced that there was a competing company in the field, and now the *Report* gives details of a third which has started in vigorously.

This is the American Refrigerator Transit Company, which has opened business in the Missouri Pacific and Texas Pacific headquarters, 132 California street. The Transit Company has been established in the East since 1881, in connection with the Missouri Pacific. It differs from the other refrigerator companies in that it handles its cars itself, having stations along the line for that purpose. The building of ice-houses, in which the ice in the refrigerator cars is renewed, was begun simultaneously in San Jose, Sacramento, Stockton and Los Angeles. The company appoints sub-agents at each of these places, and, its agents say, guarantees the fruit, etc., from damage. It has 2500 cars in use in the United States, and this coast is to be supplied at once with all required.

The shipments will be made mostly by way of Ogden, according to the present outlook. The route from the southern part of the State will be by way of Los Angeles and El Paso to the Texas & Pacific; thence to the Missouri Pacific, and thence to the destination. But from the northern part of the State the route selected will be, for deciduous fruits in particular, to Ogden and thence to the Union Pacific or Rio Grande Western—probably the latter, as the cars will have to be billed over the Missouri Pacific for part of the way, and the Rio Grande will make this connection at Pueblo. This makes three powerful refrigerator companies competing for the State's fruit freight.

## Experiment Stations at the World's Fair.

The exhibit of the agricultural experiment stations of the United States promises to be not one of the least interesting features of the Chicago Exposition. One portion of the proposed exhibit, which will be likely to attract general attention, is an *experiment station in operation*, with its office, laboratories, etc., illustrating how the indoor work of a station is actually carried on. In another portion of the exhibit each station will present, by means of maps, diagrams, pictures, sets of publications, etc., a full statement of its location, equipment, lines of work, etc., so that the visitor can, if he desires, follow out in detail the history and the work of any particular station.

The main feature, however, will be a topical exhibit of the work of the stations as a whole. In this it is not proposed to make a full showing of the work of any single station, but to make a unified exhibit showing the kind of work done by the stations, the way in which they do it, and some of the more important results which they have reached. The preparation of the exhibit is in the hands of a Committee of the Association of American Agricultural Colleges and Experiment Stations co-operating with the United States Department of Agriculture. Assistant Secretary Willis of the Department has taken a deep interest in the matter, and has promised substantial aid on the part of the Department to the Stations in making the exhibit.

At a meeting of the Committee held recently in Chicago the preparation of the different departments of the exhibit was assigned to the following gentlemen:

Experiment Station in Operation—Director of the Office of Experiment Stations.  
The Exhibits of the Individual Stations—H. P. Armby, Penna.  
Soils—E. W. Hilgard, California.  
Manuring—C. E. Thorne, Ohio.  
Crops—C. S. Plumb, Indiana.  
Horticulture—E. A. Popenoe, Kansas.  
Botany—S. M. Tracy, Miss.  
Animal Nutrition—W. H. Jordan, Maine.  
Feeding Stuffs—W. A. Henry, Wisconsin.  
Dairying—W. W. Cooke, Vermont.  
Veterinary Science—Paul Paquin, Mo.  
Entomology—S. A. Forbes, Ills.

This list of departments will give some idea of the scope of the exhibit and the variety of subjects covered by the work of the stations. The Committee has resolved promises of co-operation from practically all the stations and the success of the undertaking seems to be well assured.

## Buildings for the Columbian Exposition.

(Continued from page 589.)

put up very near the shore of Lake Michigan, and will be almost surrounded by the lagoons that lead into the park from the lake. The building is to be 500 by 800 feet, its longest dimensions being north and south. The north line of the building is almost on a line with the south pier leading out into the lake, on which heroic columns, emblematic of the 13 original States, will be raised. A lagoon stretches out along this entire front of the building.

For a single-story building the design is bold and heroic. The general cornice line is 65 feet above grade. On either side of the main entrance are mammoth Corinthian pillars, 50 feet high and 5 feet in diameter. On each corner and from the center of the building, pavilions are reared, the center one being 144 feet square and those at the ends 64 feet square. The corner pavilions are connected by ornate, forming a continuous arcade around the top of the building.

The main entrance leads through an opening 64 feet wide into a vestibule, from which entrance is led to the rotunda, 100 feet in diameter. This is surmounted by a mammoth glass dome, 130 feet high. All through the main vestibule statuary has been designed illustrative of the agricultural industry. Similar designs are grouped about all of the grand entrances in the most elaborate manner. The corner pavilions are surmounted by domes 96 feet high, and above these tower groups of statuary. The design recommended for these domes is that of three women of bercelean proportions supporting a mammoth globe. At stated intervals other groups of statuary have been arranged around the building, principally near the eight minor entrances, each of which is 20 feet wide. The roof of the building is of glass, and the entire cornice is highly ornate.

Inside broad staircases lead to a gallery 28 feet wide that extends around the building. About 400,000 feet will be available in the building, and by the widening of the gallery 90,000 square feet of additional space may be secured.

## Prison Bags.

At the meeting of the State Prison Directors, June 13, Warden Hale read his report in which he stated that 151,225 of the 300,000 jute bags, ordered sold at the last meeting, had been sold. The output of the jute-mills had been slightly increased during the past month.

The Board decided to order a cessation of night work in the jute-mill from and after July 1, next, and the warden was instructed to have plans and specifications prepared at once for the erection of an addition to the jute-mills, for the building of which the Legislature, four years ago, appropriated the sum of \$160,000. It is expected, by the erection of this addition, to double the capacity of the jute-mills, making the annual output about 6,000,000 bags. It is proposed to tear down the old building formerly occupied as a furniture factory, and to erect the new jute-mills on the site.

## The Chautauqua Assembly.

The sessions of this well-known exhibition will open at Pacific Grove, on Thursday, June 25th, with the organization of the various classes, which will occupy the morning hours from that date until the Assembly closes, Friday, July 10th. Each afternoon and evening there will be the usual lectures, concerts and entertainments for which the Assembly is famous. Our readers who desire to obtain full particulars and the right of a two-thirds' rate of railway fare to and from Pacific Grove should write at once to the efficient Secretary, Mrs. M. H. Field, San Jose.

**HORTICULTURE AT THE WORLD'S FAIR.**—There is much trouble in getting a chief for the Horticultural Department of the World's Fair. Mr. Maxwell was confirmed by the National Commission and rejected by the Local Directory. Gen. Chipman was confirmed by the Local Directory and rejected by the National Commission. Mr. Forsyth of Fresno was then confirmed by the National Commission and is now in the hands of the Local Directory. We trust the matter will soon be adjusted. These issues are engendering much ill feeling which is not auspicious.



## The Grasshoppers.

## Various Ways of Fighting Them.

Reports constantly arriving from the foothills and lower lands on the east side of the great valley indicate a continuous hatching out of the grasshoppers, and that many are still wingless, which indicates that they still have something of a future. The arsenic-bran remedy, which was fully described in the RURAL of May 30th as so effective in 1885, is proving useful this year also, but it does not meet all cases, and many other means of destroying the pests have to be employed. As this is so, we propose at once to describe the various methods which have heretofore proved more or less useful, in the hope that some of them may be of avail to our readers.

Perhaps the most effective mechanical means for reducing the pests are the long pans which are hauled or pushed by a horse, the pan having a blazing fire kept burning in it, or else a bath of crude petroleum into which the insect jumps or tumbles as the pan goes forward. There are several kinds of these contrivances similar to those shown on this page, which are taken from the Report of the U. S. Entomological Commission which dealt with the Rocky Mountain locust invasion of the great west some years ago. Readers can choose which style of pan will suit them best.

At the Natoma vineyard at Folsom, Sacramento county, in 1885, they used a modification of the pan shown in the engraving on this page. They added side wings, made of canvas, on a light iron frame, which extended about 12 feet, in order to cover as wide a space as possible, and so that everything in front would be forced back into the pans filled with petroleum. They went far enough in their experiments to demonstrate that millions of grasshoppers could be killed in this way. It cannot be worked in an orchard or vineyard, but a different kind of extirminator must be devised for that purpose, as it is a very difficult matter to run anything between trees and vines.

The best way to do if a district is threatened

similar apparatus will surely be destroyed by the red-hot sheet iron. If one trough is found to be insufficient, others can be added, as they can be constructed cheaply.

## Barriers.

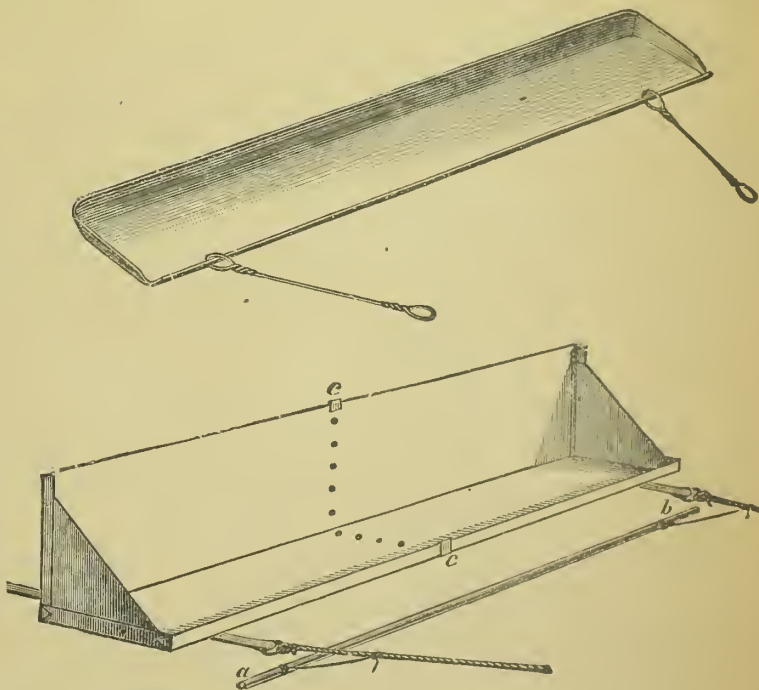
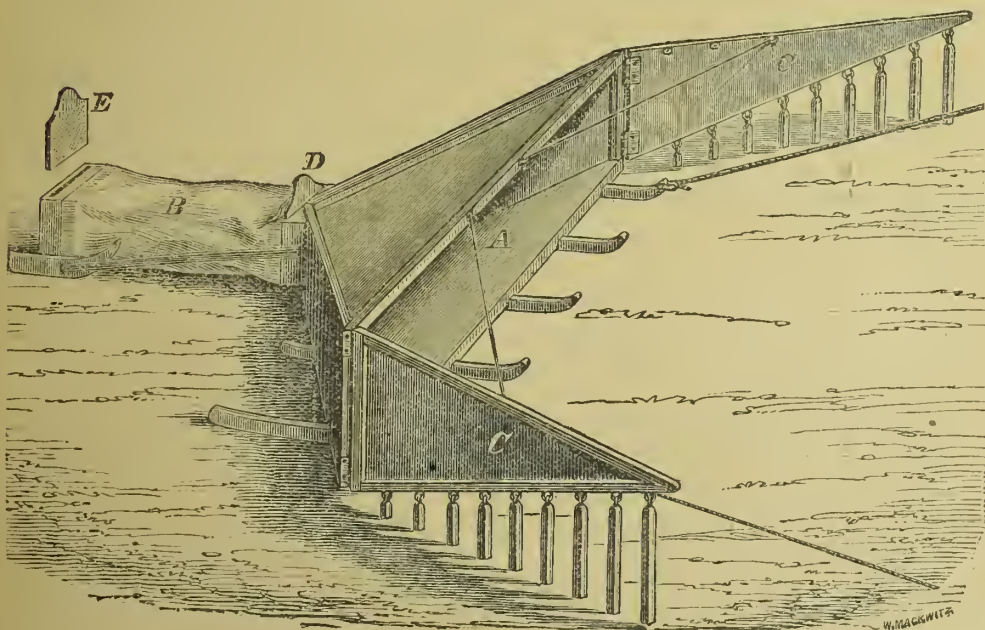
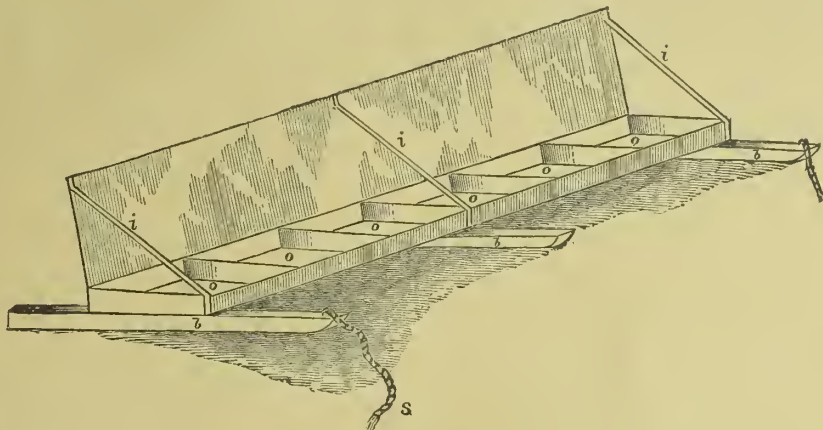
As to barriers to grasshopper progress, a small stream is no protection whatever, but rather the reverse, as the insects float down and land wherever there is food, and then go off again; but a large river being too wide to float across is a great protection. A small ditch can, however, be made available by covering it with a film of petroleum. By rigging a can of kerosene so it will leak about four drops per minute upon the slowly moving water, will spread a deadly film of oil over the surface of the ditch.

Other barriers which can be used to protect orchards and vineyards which are in the path of the invasion, may be described as follows: One of the best ways to kill the young insects is by ditching or trenching. Simple ditches, two feet wide and two feet deep, with perpendicular sides, offer effectual barriers to the young hoppers. They accumulate in such ditches and die in such masses that the stench

to one point, the orchard. Of course, that was the next thing in order after the alfalfa was finished, and they attacked it in full force. It then occurred to me that I had 120 hogs that might know how to eat grasshoppers. In the chill of the morning, I invited the hogs into the orchard to breakfast, and waited on them by jarring the hoppers off the trees while they were too cold to fly. Half an hour of four consecutive mornings left me and the hogs masters of the field. But nine-tenths of the fruit was gone which might have been saved had we been early on the ground. The fruit buds for this year's crops were also destroyed, thus making a double loss.

## How to Burn the Hoppers.

From a gentleman familiar with the grasshopper ravages in Kansas, the Bee learns that the laying of long lines of straw, as practiced by the Natoma Company, was found to be the most effective means of stopping the march of the pests. The straw was laid in long lines, and 10 or 20 feet wide. The hoppers in their march, or on being driven from other places, would take shelter under the straw, seeming to prefer it to grass, brush and all other things.



VARIOUS DEVICES FOR CATCHING AND KILLING GRASSHOPPERS.

and there are crops of considerable value is to select as a vantage ground an open, level tract, if such can be obtained, lying between the cultivated fields and the direction of the threatened invasion, and make that mutual territory, and there operate the machines. Nothing can be of much value unless a neighborhood act in combination, or a man of large means should undertake the work extensively.

The machine is perfectly simple—an old horse, almost unfit for work, and a steady boy could run it all day long, and with the side-arms it covers a great deal of ground, as when extended by wings it will pass over about the same amount of ground in a day as an ordinary header. The materials of its construction are simple and the cost trifling—not more than \$12 to \$15, including labor. The tank containing the petroleum is of wood, lined with light sheet iron, and the cost of canvas for the wings is very little. If a man is ingenious, he can construct one himself at a cost of about \$6 for materials. Crude petroleum is used in the vat, and can be used over again after the insects have been strained off.

The way they used a fire-pan in Kansas for destroying the pests before they get wings is as follows: Plow two deep trenches, about 50 feet apart, outside of the fields you wish to protect. Construct one or more troughs of sheet iron, say 4 to 6 feet long and 6 to 12 inches deep. Attach a long chain thereto, and which can be drawn by a horse, with a boy rider. Throw a few stores into the trough to give it weight, and build in it a fire of any light material. Keep the outfit moving up one trench and down the other. What grasshoppers might have escaped being crushed by the weight of a

from them is intolerable, and the practice is to bury them with soil. In order to keep the main trenches open, it is customary to dig pits here and there in the trenches, which are filled up as soon as full of hoppers, and other pits dug for new-comers. Another plan is to bore holes in the bottom of the trench with a post-hole auger, and cover with earth as soon as these holes are nearly filled, packing down the soil, so as to leave the bottom of trench smooth as before. One of the most successful operators with this plan of destruction, noticed in the report of the Commission, was F. J. Adkins of Kansas City, Mo., who saved 160 acres, and his neighbors, seeing how well his ditches worked, sent others through their growing grain, and saved parts even after the edges of fields had been invaded.

Prof. Riley says that where ditches are not easily made, and where lumber is plentiful, a board fence two feet high and with three-inch batten nailed on the top or side from which locusts are coming, the edge of it smeared with coal tar, will answer as an effectual barrier, and prove useful to protect fields or gardens.

It is stated that when the hoppers commence to fly they need not be feared in the vineyards, since by building fires and making a smoke, such as is used as protection against frost, the pests can be prevented from lighting on the vines.

## Hogging the Hoppers.

A correspondent from Lowrey's sends to the People's Cause the method he pursued to rid his orchard of invading grasshoppers: I have a small orchard with alfalfa on three sides of it. The green alfalfa drew the hoppers from the adjacent dry hills and led them from all sides

They could scarcely be driven out of it. When the straw was efficiently full of them it was fired, and the destruction of almost every grasshopper in it was assured.

## Sulphur Smoking.

A Nebraska farmer furnishes one of our San Francisco contemporaries with what he claims is an infallible means of driving away the grasshoppers. He thus describes it:

"Take hay, straw or rubbish, and dump it off in forkfuls a rod apart over the field on the windward side. Next, sprinkle from one-fourth to a half a pound of sulphur on each pile, and in the evening set the substance on fire. About sundown, the air being sufficiently heavy to keep the smoke down close to the ground, the wind will roll it all over the field. The smoke will scent everything growing upon the field to such an extent that grasshoppers will never come there again during the season that the sulphur is applied. I tried this method for three seasons in succession when the grasshoppers swarmed in myriads from the Rocky mountains, and it always proved successful. The fourth time I applied the sulphur smoke the troublesome insects had been hatched upon the field and had out of the crop of wheat clear to the roots, but after being 'smoked' they disturbed nothing further. For about 80 acres of land from 40 to 50 pounds of sulphur are required."

## Natoma's Experience This Year.

Superintendent Schussler, says the Sacramento Bee, is not seriously alarmed at the outlook. The only damage so far done in the main vineyard tract is along the first row or two bordering the roads and avenues that trav-

erse the tract, and by firing the grass along those roadways and all grassy patches and driving the pests into the flames and ditches, the interior rows have been kept clear from them. The great attack was from the foothills outside the ditch that encircles the vine tract, and so far they have been kept out. The trouble has been that the appearance of the locusts this year has been different from that of '85. In that year they seemed to all hatch out at about the same time, but this year they have been coming out for four weeks and keep the forces fighting them constantly on the alert. At the extreme eastern end of the vineyard, referred to above, a few table grapes have been destroyed. The attempt is made along the eastern border of the vineyard to keep the destructive hordes moving southward, and to this end a gang of Chinamen is kept beating the ground with longhairs and sacks. In their present stage they are hard to drive, but when their wings come they can be moved more easily, unless an unfavorable wind should prevail. Arsenic poisoning has proved of little avail. The greater dependence on the Natoma estate is put in driving them into the open water courses and by firing the grass on the hard and baked hatching-grounds.

## QUERIES AND REPLIES.

## Hints on Seeds.

EDITORS PRESS:—The cotton seed I got last year came too late to do much here, so I saved some of it and planted it this spring. As the seed was old I scalded some as an old darkey told me to. Then I planted some of the wet and some of the dry seed in the same bed the rows of wet seed came up in four days, and the other was three weeks in coming.

Several of my neighbors planted beet seed last year that had matured from roots in their garden, and the beets were not good and did not pay for the trouble. When you want to raise good cabbage and beet seed, always pl-

## Cement Cisterns.

EDITORS PRESS:—I noticed an inquiry some weeks ago in your paper, asking for information about cisterns made by plastering on the sides of the excavation without walls of brick or stone. We construct cisterns in that manner here and find them not merely as good, but much better in all soils, even gravel and sand, than those walled up. Plaster with mortar made of six parts sharp clean sand to one part Portland cement. Apply two coats, and white-wash with clear cement and water.

Arch the top over with common brick in lime mortar, plaster the outside with cement and you have an everlasting affair, as good as can be made. Should it crack and leak, use your wash and brush again.—E. M. WARDALL, Monrovia, Cal.

THINNINGS FOR PIES.—We read in an English exchange urging gardeners to thin the oaks on their trees which grow against the garden walls, and give as one inducement the fact that the thinned fruit is not a loss, but "the cook can make good use of it for pies." What a chance for pie-bakers there would be in California apricot, pear and peach orchards at thinning time!

THIRTY-FIRST AGRICULTURAL DISTRICT FAIR.—The first annual fair of the Thirty-first Agricultural Association will be held at Hueneme on Oct. 6th, 7th, 8th and 9th, 1891.



## AGRICULTURAL NOTES.

## CALIFORNIA.

## Butte.

**ALFALFA YIELD.**—Oroville Register: Fred Paul has ten acres of land sown to alfalfa. From this he has just cut a crop of hay. He will irrigate the land and cut a crop about the middle of July, another the first of September, and a fourth the middle of October. This will average him, he says, about 60 tons for the ten acres and then give pasturage for some time, but he means to cut the grass and feed it while green, for the last crop, rather than let any stock run on the land. Six tons to the acre, and then green feed besides, means a handsome profit of about \$50 an acre.

## Kern.

**PUMP IRRIGATION.**—Bakersfield Echo: Pump irrigation is taking root in Tulare county as well as in Kern. One gentleman's plan for securing water was this: He dug a big well, about 20 feet square, as deep as he could for the first stratum of water. But not finding water enough he bored down until he struck the artesian vein when it raised into the big square well. This gave him an inexhaustible supply. It has been demonstrated in several instances here that under this whole valley there is artesian water. It will not always flow out at the top of the well, but it will rise to within easy pumping distance. So where an adequate supply cannot be obtained otherwise, this stratum or vein may be tapped without very heavy expense. But very fortunately there is little or no difficulty in securing all the water needed by boring less than 100 feet.

## Los Angeles.

**EDITOR RURAL PRESS:**—The fruit crop in Los Angeles, Orange and San Bernardino will be very light: Peaches two-thirds crop; apricots one-half or less; prunes one-third or less. These are the reports from a dozen or more places Saturday last. Let every fruit-grower govern his contracts on this basis. All agree that the quality will be good and the crop short.

E. M. WARDALL.

## Monrovia, Cal.

**SOUTHERN CALIFORNIA POTATO CROP.**—Los Angeles, June 12.—The yield of potatoes in Southern California has been greatly underestimated. An officer of the Southern California Railroad Company says that in a recent trip within a radius of eight miles of this city he saw 15,000 acres of potatoes. They will average 60 sacks to the acre and 200 sacks to the carload, which would make 5000 carloads in the immediate vicinity of Los Angeles. There are immense tracts in Orange, San Bernardino and San Diego counties. In fact, the freight men think the total will reach 18,000 carloads.

**POTATO BLIGHT.**—Monrovia Messenger: Several reports have come to us of a blight in potatoes, particularly in the Early Rose variety. From present appearances, the crop will be a light one. In most cases, the potato has not matured, and the vines are dying. Scarcely more than half a crop is looked for.

**FRUIT CROP.**—Pomona Progress, June 11: From reports concerning the condition of deciduous fruit crops in all parts of Southern California we find that apricots, which will be ready for the canneries and driers within 30 days, will be about 20 per cent more than the average yield. There is a heavy crop in Pomona valley. Peaches will be about the average crop, but less than that of last year. In Orange and San Diego counties peaches will give a small yield, and the same is true of parts of Ventura and Los Angeles counties. Of prunes there will be the smallest yield of that fruit since 1883. In many orchards there will be less than half of the average yield, and some think it will be less than one-fourth of the average. In some localities where the profits were \$550 an acre last year there will be less than \$50 worth of prunes on an acre this season. No prune-grower seems to be very blue. Every one believes that last year's extraordinary crop caused the small crop this year, and all look to another immense yield in 1892.

## San Benito.

**HAY NOTES.**—Hollister Advance, June 13: Along in the latter part of April, it was whispered about that the hay crop, especially volunteer, was very short. At that time, grain hay cut no figure in the case, as it was too early to determine what prices would range at, or how much oats were in the grain, two important factors in cutting grain for hay. Old hay was all cleaned up at high prices, ranging in San Francisco from \$17 to \$23 per ton. Early in May, our local dealers offered \$11 per ton for grain-fields, if cut for hay in first class order, then in reality did haying begin, for more than 50 per cent of the grain-fields within a radius of eight miles of Hollister have been cut to hay. Several thousand tons were contracted as above stated. It is rather a hard matter to determine the amount of the crop which will come to Hollister, for at this writing farmers are still cutting, but from a close estimate and from facts gathered from our local warehousemen, we put it at 18,000 tons, which will come to Hollister, and probably 4000 tons at other points. Our hay this year is of superior quality.

## San Bernardino.

**BEEF CROP NOTES.**—Pomona Times: The outlook in the Chico beet-fields is more than encouraging. Those planted in February and

March now cover the ground completely, and the work on them is done. The later-planted fields require constant attention, and a large force of men and women. They go down on their hands and knees, and, taking two or four rows at a time, follow them through, thinning them down to what the ground can mature, and rooting up every weed. After this they have to be hoed and weeded, the idea being to work them until the plants cover the ground. The best experts say that the promise of a splendid crop was never better, and the tests made last year prove that the quality of Chino-grown beets is up to and ahead of any yet raised in any part of the world.

## San Joaquin.

**WATER FLOWING IN THE WOODBRIDGE CANAL.**—Stockton Independent: The big irrigating canal running from Woodbridge toward Stockton is now carrying water a distance of ten miles to the point where the railroad line will be crossed. In the other branch of the canal, running in the direction of New Hope, water is running a distance of 1½ miles from the headgates. Farmers who live in that section of the county say the canal is a great success and the engineering work is correct in every particular. It was believed when the route was laid out for the canal to run toward Stockton that the company was attempting to make water flow uphill in the direction of Lodi, but now that the ditch is completed for ten miles, acknowledgment is made that the engineer knew his business. At the south end of the canal, distant ten miles from Woodbridge, the water is 4½ feet deep, but it is the intention to carry a larger volume when the embankments have become settled so there can be no possible danger of an overflow.

**TALL WHEAT.**—Independent: George Mosher measured some of his summer fallowed wheat a few days ago and found the stalks more than seven feet high. The wheat heads are not longer than in former seasons when the stalks were four feet high, but there are more kernels than usual and the general yield will be very large.

## Santa Barbara.

**DISTRICT FAIR DATE.**—Santa Maria Times: The Board of Directors of our new agricultural district held a meeting at Santa Maria and fixed the dates for holding our next fair—Sept. 1st, 2d, 3d and 4th. Our farmers and fruit-growers should begin to stir themselves early to make preparations for the coming dates. We should endeavor to make our fair superior in every respect to any of its predecessors. It has been demonstrated many times in the past that our valley is capable of getting up an exhibit that will vie favorably with anything of the kind ever placed before the public in Southern California, and, considering our State appropriation and the enlargement of the district, we ought to be able to get up an exhibit that will excel any effort in this direction in the past. Each one must remember, to make an unqualified success of the fair, there must be a co-operation and all interested pull to that end.

## Sonoma.

**PEACH STEMS.**—Bakersfield Californian: One of the Hunt brothers, now visiting here from Santa Rosa, has recently made a tour through the fruit regions of Delaware, and also inspected many canneries there. He reports that almost the entire demand in Delaware is for freestone peaches, very few cling now being raised, and they finding little favor. This year he was told 5,000,000 four-year-old trees would come into bearing, with every prospect of yielding largely. The canneries there do not order in advance, but buy peaches by the wagon-load as they are brought in from day to day, and each day's price may vary more or less, according to the supply. At his home in Santa Rosa, his firm expects to can about 3500 tons of peaches this year, chiefly the Early Crawford. One peculiarity of this variety of peach is that, like the apricot, they all ripen at once; and as the crop there this season will amount to some 8000 tons, it is going to be a great undertaking to handle them all, especially as the cannery will require about all the labor to be had. Mr. Hunt remarks especially that a late cling, like the Georges or Orange, is pre-eminently the peach to be raised here, as it has no Eastern competitor, nor, for that matter, any rivalry in this State. Kern valley is admirably fitted for its growth, and as it keeps so well, and ripens gradually, there is no need for the high pressure haste which attends upon an Early Crawford or apricot.

**THE DISTRICT FAIR AT PETALUMA.**—Santa Rosa Republican: The present season's races and exhibit at the District Association at Petaluma promise to excel all former efforts there. The track has been materially improved, and many useful and convenient additions have been made to the grand stand and buildings upon the grounds. Many of the noted horses of the State will participate in the races, and the exhibits of products and live-stock will be particularly fine. It is proposed to run excursion trains from all points in the county, on particular days during the fair, for the purpose of taking the school-children to see the fair. Neither effort nor expense will be spared by the management in making this a success. Prizes of \$100 down to \$20 will be offered for best exhibits. The fair is to occur the last week of August.

## Stanislaus.

**THE POTATO CROP.**—Oakdale Leader: Early in the season it was predicted that the potato crop this year would be good, and people planted largely; but notwithstanding the

abundance of rain, the crop in these parts is a partial failure. It is our experience that the crop raised on the first plowing or breaking up of the ground is always the best. Be this as it may, the potatoes this year on sand land are almost a failure, and such as did grow are small and unmarketable. Whether or not irrigation would have benefited the crop is not certain, as there is plenty of moisture in the ground up to this date to mature a good crop. There may be something in the kind of seed planted, or in the rotation of crops of the same kind, on the same ground, but we think the sandy soil is not adapted to the successful raising of this sort. Abundance of manure and plenty of water might be made to produce a good crop of this much-needed esculent.

## Sutter.

**EARLY PEACHES.**—Yuba City Farmer, June 12: The peach trees are bending beneath the weight of the large, luscious fruit, which, on the early varieties, are now being picked for shipping. The Briggs Red May is the principal variety, are being picked from the orchards of H. P. Stabler, J. L. Duncan, B. F. Walton, J. B. Wilkie, Geo. Brittan, C. Weeman, Sutter County Orchard Company, Abbott & Phillips, and others. A lot from Geo. Brittan's orchard at Sutter City have been already shipped to Portland. The Earl Fruit Company will load a car at the depot here and ship the same East next Monday, the fruit to be supplied from the above-named orchards. Apricots are being picked by a few for shipping but are rather green yet. The cannery will start operations about a week from next Monday on apricots, of which there are large quantities engaged.

## Tulare.

**VISALIA FRUIT NOTES.**—Times, June 11: A quantity of apricots were shipped from this city on Monday last to Portland, Seattle, Denver and other points. The fruit was secured from Visalia orchards, and was purchased at 1½ cents per pound. Next week several carloads will be shipped to Denver and Chicago. The apricot crop is good in the Lucerne valley; that is, at Hanford, Grangeville, Lemoore and Armona, and much of it will be shipped East in a green state. In the spring of 1890, W. F. Kelsey planted 1000 grapevines, of the Thompson Seedless variety, which have made such a growth this year that it is now impossible to run a cultivator between the rows of vines. More remarkable still is the fact that these vines are now heavily laden with bunches of grapes, and there is promise of a yield of 50 pounds to the vine. Every vine is not bearing so heavily, but the majority of them will give the yield stated.

**STANISLAUS CO. DISTRICT FAIR.**—Modesto News: The first annual meeting of the Stanislaus Stock-Breeders' Association near Modesto, on October 14, 15, 16 and 17, 1891. The directors will secure a pavilion in the city of Modesto.

## Ventura.

**FIG CULTURE.**—Downey Champion: Among the many varieties of fruits in the mammoth orchard of D. C. Cook, Ventura county, the fig stands at the head of the list. Mr. Cook has shown his confidence in the value of the fig as a paying crop by devoting to that fruit alone 650 acres of his orchard. In 1887 the fig production of the State was 90,000 pounds; in 1889 it was 100,000 pounds, and in 1890, 200,000 pounds. With this increase in production came an increased demand, and the receipts from abroad in 1887, 8,724,583 pounds were swelled to 10,649,049 pounds in 1889 to meet the demand. Of the many varieties of figs in cultivation in Southern California, the White Smyrna for drying and crystallizing has been given the preference by experienced growers, not only on account of its excellence, but its superior habit of ripening its fruit at the most favorable season for drying and the shortness of its picking season. During the past two years, in the southern tier of counties, hundreds of acres of fig orchards have been planted, which will soon come into bearing. In a very few years Southern California will send East her train loads of dried figs, as she is now doing with her raisins and other fruits.

**A SHORT HONEY CROP.**—Free Press: From W. F. Richardson of the Simi, who was seen a few days ago, it was learned that the honey crop will be light this year because of the unfavorable weather in May. Mr. Richardson has four or five bee camps, and is one of the most prominent bee men in Southern California. The cold weather during May kept back flowers and made the bees rather heavy.

## NEVADA.

**CATTLE FOR WASHINGTON.**—Reno Gazette, June 11: George Wright will ship another train load of cattle to Washington on the 13th. Mr. Wright has been picking up small lots here and there for the past two weeks, until he has about all he wants.

**CATTLE POISONED.**—Tuscarora, May 25: Quite a number of cattle in Smoky and Monitor valleys and Meadow canyon, Nye county, were recently poisoned by eating wild parsnip. The Anderson brothers of Meadow canyon have lost about 20 head of steers.

"My father, at about the age of 50, lost all the hair from the top of his head. After one month's trial of Ayer's Hair Vigor, the hair began coming, and, in three months he had a fine growth of hair of the natural color."—P. J. Cullen, Saratoga Springs, N. Y.

## DO YOU NEED

## SPRING WAGON?

Prices Reduced.  
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Quality the Same as Before.

No Better Made.

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Had in this Market.MANUFACTURED BY  
BENICIA AGRICULTURAL WORKS.Guaranteed. Guaranteed.  
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## ALL STYLES.

3 & 4 SPRING WAGONS,  
1, 2 & 3 SEATED WAGONS,  
DAIRY WAGONS,  
GROCERY AND EXPRESS WAGONS,  
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EVERY WAGON HAS BEEN  
REDUCED IN PRICE.EVERYBODY CAN AFFORD  
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# THE CALIFORNIA STATE FAIR OF 1891

WILL OCCUR AT SACRAMENTO, The STATE BOARD OF AGRICULTURE

September 7th to 19th Inclusive

(TWO WEEKS).

**See That Your County  
Is Represented.**

LOCALITIES that exhibit their capabilities are attracting buyers. PRODUCTS speak for themselves if given an opportunity.

TO LAND OWNERS that desire to establish colonies we say, Make your showing at the State Fair, where people congregate to make comparisons.

No Productions Shown,  
No Visitors Call.  
No Visitors,  
No Sales.  
No Sales,  
No Progression.  
No Progression,  
No Nothing.

ANY COUNTY that earns a Premium as a County, at the State Fair attracts attention of home-seekers, which means NEW BLOOD, NEW IDEAS, and ADVANCEMENT in all industrial lines, as well as general progression throughout.

BEGIN YOUR PREPARATIONS WITH HARVEST. It is a year of Agricultural Prosperity. TAKE ADVANTAGE OF IT.

Devotes Over \$5000 This Year to

PREMIUMS FOR AGRICULTURAL PRODUCTS

(EXCLUSIVE OF LIVE STOCK).

THE FIRST PREMIUM IN COUNTY EXHIBIT DEPARTMENT IS \$750.

A NEW FEATURE by way of a Special Award for Farm Products grown by individuals will be given this year. The first premium is \$350; second, \$150.

THE POPULAR EXHIBITIONS OF SPEED. THE UNSURPASSED DISPLAY OF LIVE STOCK OF ALL KINDS ATTRACTS THE LARGEST CROWD OF SIGHTSEERS THAT GETS TOGETHER DURING THE YEAR.

THE GRAND EXPOSITION BUILDING is filled with the beauties of nature and the MECHANICAL DISPLAYS form a most interesting feature of the exhibition.

THE GRAND MUSICAL CONCERTS each evening are an attraction worthy of notice.

IT IS HERE THAT EVERYBODY GOES. You meet the Merchant, the Manufacturer, the Producer and the Consumer. No one cares to miss the State Fair.

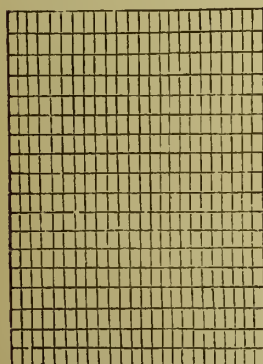
EXCURSION RATES are given on all railroads. FREE RATES ON FREIGHT of all kinds for Exhibition.

PREMIUM LISTS now ready. Apply to Secretary for information of all kinds  
FREDERICK COX, President.

EDWIN F. SMITH, Secretary.

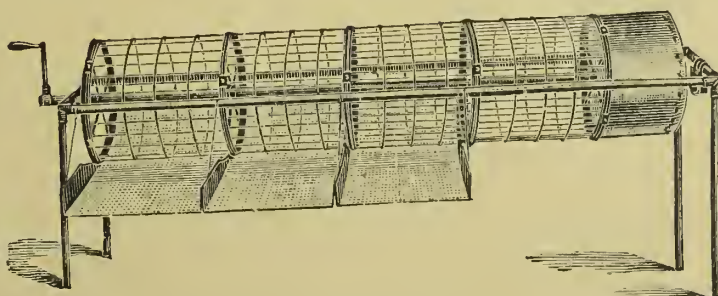
## SPECIAL POINTER TO FRUIT GROWERS!

WIRE WORK OF ALL KINDS.



PRUNE SCREEN.

Window Guards,  
Wrought Iron Fencing,  
Bank, Store and Office  
Railing,  
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tures,  
Ornamental Wire Work,  
Roof Cresting and Fin-  
ials,  
Sieves, Riddles and  
Screens,  
Galvanized Dipping  
Baskets,  
And Prune Screens.



### THE CYLINDER GRADER

Has Proven the most Rapid Working Machine that has ever been introduced. Its capacity is practically unlimited, as it will grade the fruit as fast as it can be fed into the machine.

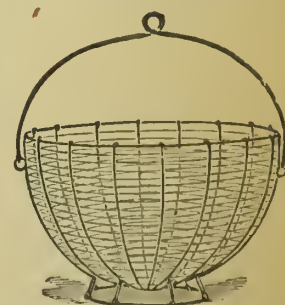
SEND FOR CIRCULARS AND PRICES.

D. D. WASS, 141-143 First Street, San Francisco.

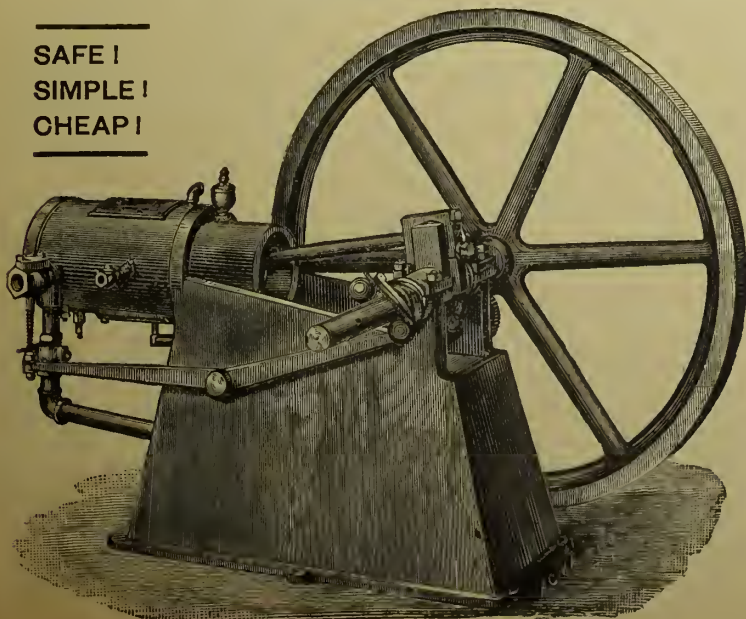
FOR GRADING ORANGES, PRUNES, OLIVES,  
WALNUTS, PICKLES, ETC.

Will Grade Green or Dried Fruit Equally Well.

TUSTIN, Sept. 17, 1890.—MR. D. D. WASS, San Francisco.—Dear Sir: The Grader arrived the 3d inst., and I had no trouble in putting it up and operating it. It worked like a charm, and I could easily grade five tons of fruit a day. I have finished and shipped my crop. I wish you would now explain the attachments or screens for grading oranges. If they grade oranges as nicely as prunes, I want them. Please describe them and state the price. Yours, etc., J. H. CREW.



DIPPING BASKET.



SAFE!  
SIMPLE!  
CHEAP!

## REGAN VAPOR ENGINE.

NO BOILER. FIRE. EXPLOSION. STEAM,  
ASHES OR ENGINEER.

Started Instantly Without Even a Match. Will Run on Natural or Manufactured Gas or Gasoline. The Moment Engine Ceases to Run, all Expense Stops.

Upright and Horizontal, Stationary and Marine Engines from 3-4 Horse Power, Upward.

Our Engines are especially adapted for Pumping and Irrigating and Spraying Fruit Trees; in fact, for any use where power is required.

OVER 400 IN USE.

POPE & TALBOT, LUMBER, Office, 204 California Street.  
SAN FRANCISCO, Feb. 25th, 1890.

REGAN VAPOR ENGINE CO.—Gentlemen: The 4 H. P. Vapor Engine I bought of you last May has been in constant use ever since, and has given me entire satisfaction. I have found the engine to be all that you claimed for it, and more too. You can use my name for reference if you so desire. I am, yours truly,  
H. TALBOT.

We Carry Thos. Kane & Co's Famous Racine Launches, fitted with our New Compound Engines.

Send for Circular.

REGAN VAPOR ENGINE CO.,

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AGRICULTURAL  
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33 & 35 MAIN STREET  
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THE MORAL AND PRUDENTIAL MANAGEMENT under the direction of Eminent Clergymen and Citizens of Cal. For further information address REV. T. H. SINEX, Supt.

## 216 FRONT STREET.....SAN FRANCISCO, CAL.

~~15~~ No Churning of Fruit in my machine.

WILL E. FISHER, Pres., EUGENE G. DAVIS, Vice-Pres., WM. S. TEVIS, Treas., ALFRED D. HALL, Sec'y.

**BRIGGS CARRIAGE CO., C. Grego, Agent.**

PRIZE MEDAL OF CAL. STATE FAIR, 1890

THE LATEST AND BEST.

**WRITE FOR PRICES OF THE SPLENDID 'CARLET**  
Cactus Dahlia "Juarez," White Cactus Dahlia  
"Constance," Double Dahlias, Yellow, and Red Cannas  
Ehemani and Fontai; also, Best French Cannas. Plants  
grown by contract from the finest collection in the State.  
Send for Bulb and Seed Trade List. THEODOSIA B.  
SHEPHERD, Ventura, Cal.

**T**HE FIRST ARRIVAL THIS SEASON OF TAHITI Oranges just arrived ex. "Courtney Ford." Those desirous of Choice Tahiti Orange Seed can obtain same from this cargo by communicating with the importers, L. G. SRESOVICH & CO., San Francisco.

**ARRANGED FOR BOTH SUN AND ARTIFICIAL**  
Heat. An original design, better than anything in the market. On rollers, so that the whole structure can be easily turned, any side to the sun. Built with a view to taking it to pieces for jacking and shipment. Price only \$100. Apply to JOSEPH H. DORETY, 527 Commercial St., San Francisco.



## Stockton and Her Industries.

[By J. C. H.]

A RURAL reporter visited Stockton last week and spent a whole day examining the great industries and agricultural plants now in full operation in that city. Within six months over \$500,000 worth of agricultural machinery has been built in that city, and the most gratifying part of it is, that at this moment it is all under contract for delivery or has been delivered. The combined efforts of the four large agricultural machinery plants that make a business of manufacturing combined harvesters are now sold out, and the Stockton O. H. & A. Works have put on the stocks ten new machines, under special orders as a favor to some of their friends, hoping that by putting on an extra force of men to get them ready for the harvest. At the depot and in the yards the bright-painted machinery was scattered in every direction, and on the cars the most that could be seen for freight was combined harvesters, headers, wagons, and one California thresher, built under Laufenberg's patents by the S. O. H. & A. Works especially for the Salinas valley. Four of these threshers or separators have been built this year under order, and orders were placed for four more, which could not be completed this season.

The Matteson & Williamson agricultural works, Holt Bros., wheel factory, and Houser, Knight & Haines were almost completely sold out of combined harvesters, and were repairing old ones to meet the pressing necessities of the farmers.

The new mammoth flour mill was up to its full height and is now being made ready for putting in the machinery. The new wooden flour mill near the depot was running, and has a fine local reputation for making extraordinary fine flour.

The San Joaquin Valley Agricultural Association has nearly enough money subscribed for making their kite-shaped track, and it is expected, with the fine program that they are offering, that their District fair will fairly eclipse anything that has ever been seen in the San Joaquin valley.

Mr. R. F. Wilson, manufacturer of the improved Davis wind-mill, has erected a factory on his block of land that he purchased last spring, and has a 20-horse power vapor engine, which he expects to run by natural gas, as it is situated close to a large well that has a superabundance of natural gas. He has a full force of men at work on a county order of six wind-mills, duplicates of the ones he built last year for San Joaquin county.

The new court house in Stockton is finished, and the grounds around it are now being ornamented.

The H. C. Shaw Plow Works have had a large volume of business, and their force of men was quite busy preparing agricultural implements to send into the interior. Their spading harrow has proved one of their drawing cards this year.

In every part of the city of Stockton there are neat cottages going up, suitable for the working men, and the city seems destined, as we always considered that it would, to become the great manufacturing center of the Pacific Coast. One feature of the San Joaquin Valley now, as compared with former years, is that during the last two or three years large houses have been built at the expense of knock-down rookeries, for families to live in, costing from \$3,000 to \$4,000 and up to \$10,000 each. With the very fine depot that is about to be erected in the city, and with the large demands for the new addition to Stockton which has been added, known as Fair Oaks Tract, on all sections of which new houses are going up, it is safe to say there is no city in the State to-day that has more substantial and progressive prosperity than the city of Stockton.

THE RURAL PRESS has taken a deep interest in the development and growth of the manufacturing for improved agricultural implements and machinery in the city of Stockton, and joins with her citizens in commending the enterprises as a signal triumph for California.

## Alameda Co. Farmers' Institute.

The first session of this body will be held at Haywards, opening at 2 P. M., Friday, August 7th, and continuing during Saturday. Farmers are invited to contribute original papers on subjects of direct interest to farmers and horticulturists in Alameda county. A more complete report of the organizing meeting at Niles last Saturday will be given later.

All farmers, their families and friends interested in the subjects to be discussed, are expected to attend and enjoy the occasion.

FINE STOCK FOR JAPAN.—J. H. White of Lakeville, Sonoma county, sold six choice Holsteins last week at satisfactory prices. There were three thoroughbreds, consisting of two cows and one bull, and three more of high grade. They were bought to be shipped to Japan.

It is conjectured that a specific may yet be found for every ill that flesh is heir to. However this may be, certainly the best specific yet found for diseases of the blood is Ayer's Sarsaparilla, and most diseases originate from impure blood.

APIARIAN SUPPLIES.  
Italian Queens, \$2.50 each; Black Queens, \$1 each. Swarms from \$2.50 each; Smoker, \$1. Comb Foundation, \$1.25 per pound; V-groove Sections, \$4 per 1000. Comb Honey wholesale and retail; Hives, etc. W. STYAN & SON, The Homestead Apiary, San Mateo, Cal.

## List of U. S. Patents for Pacific Coast Inventors.

Reported by Dewey &amp; Co., Pioneer Patent Solicitors for Pacific Coast.

- FOR THE WEEK ENDING JUNE 9, 1891.  
456,767.—TOOLS FOR CUTTING HOLES AND WASHERS.—Jas. Addison, S. F.  
453,963.—PENDULUM BAR TREADLE.—E. A. Cochran, Pasadena, Cal.  
453,768.—SAFETY GUARD FOR CARS.—L. J. De Puy, Phoenix, A. T.  
453,859.—FRUIT-SLICER.—Flickinger & Graham, San Jose, Cal.  
453,902.—PLUMB AND LEVEL.—Garner and Connaughton, LaJourell Falls, Or.  
453,769.—ORE FURNACE.—J. L. Giroux, Jerome, A. T.  
453,636.—BAG HOLDER.—E. Henretty, Portland, Or.  
453,841.—SAFETY CHECK-REIN HOOK.—A. Kempkey, S. F.  
453,658.—DEVICE FOR STEAMING FRUIT.—Phelan & Eldridge, Portland Or.  
453,915.—DOOR CHECK.—David Rankin, Pasadena, Cal.  
453,778.—ADDING MACHINES.—A. E. Shattuck, S. F.  
453,765.—SHUTTER FOR FIRE GRATES.—W. H. Vance, S. F.

The following brief list, by telegraph, for June 9 will appear more complete upon receipt of mail advices:

California.—William H. Anderson, Riverside, tag and parcel layer; Matthew Arnold, San Francisco, riveting machine; Nathan Brown, Oakland, safety guard for sleeping cars; Charles C. Davis, Los Angeles, portable burglar alarm; Geo. W. Hunter, Fresno, axle-setting machine; John F. Kirby, San Francisco, governor; Harry H. Love, Sacramento, two patents, wrench and ruling pen; David Luhn, Sacramento, writing-pen attachment; James and William Paterson, Stockton, assignors to the Benicia Agricultural Works, Benicia, h. vester; Edward A. Rix, San Francisco, rock drill; Edgar F. Sanford, Merced, thresher; John C. H. Stut, San Francisco, cable railway grip; Frank E. Tremper and J. W. Eissnuth, assignors to Electric Vapor Engine Company, San Francisco, electric pole in gas or vapor explosive engines.

Oregon.—Jacob A. Fulton, Astoria, fl'ter.  
Washington.—William McLeannon, Port Angeles, pump.

NOTE.—Copies of U. S. and Foreign patents furnished by Dewey & Co., in the shortest time possible (by mail or telegraphic order). American and Foreign patents obtained, and general patent business for Pacific Coast inventors transacted with perfect security, at reasonable rates, and in the shortest possible time.

## Farmers Attention.

The Mercantile Agency and Investment Co., No. 16 Post St., S. F., has \$3,000,000 to loan on ranch property in sums of from \$5000 up. You can also renew old loans at a reduced rate of interest by corresponding with the Secretary, stating all particulars. The following well-known business men are officers of the company: Will E. Fisher, Pres.; Eugene G. Davis, Vice-Pres.; Wm. S. Tevis, Treas.; Alfred D. Hall, Sec'y.

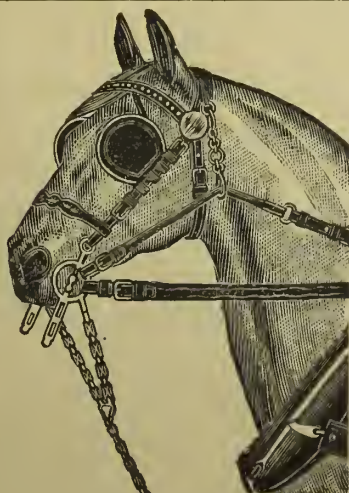
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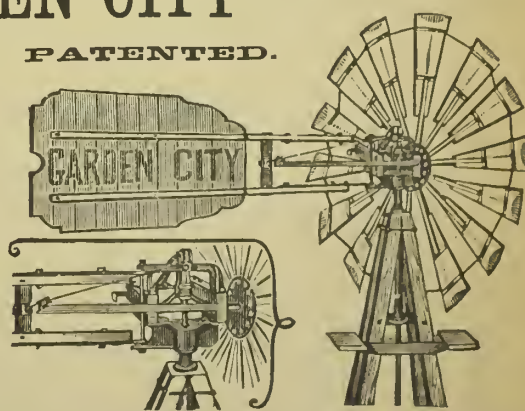
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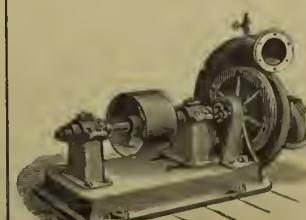
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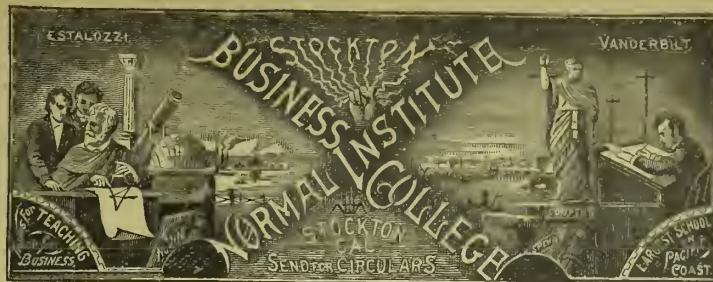
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## S. E. MARKET REPORT

## Market Review.

## DOMESTIC PRODUCE, ETC.

SAN FRANCISCO, June 17, 1891.

The weather continues favorable in nearly all parts of the State for growing crops. Harvesting of barley is well underway, and that of wheat is enlarging. The general outlook to the acre, so far as obtainable, indicates that it will be larger than claimed. Fruit is being marketed at exceptionally good prices, considering the increased crop. Money generally easy, with no stringency looked for, even when the movement of cereals is at its height. The Eastern and European wheat markets fluctuate, being largely governed by weather influences. The following is a copy of to-day's press telegram.

LIVERPOOL, June 17.—Wheat—Firmly held. California spot lots, 8s 4d; offcoast, 4s 6d; just shipped, 4s 4d; nearly due, 4s 3d; cargoes off coast, steadily held; on passage quiet, but steady; Mark Lane wheat, quiet, English country markets, slow; French country markets, steady; wheat and flour in Paris, quiet; weather in England, brilliant.

## Liverpool Wheat Market.

The following are the closing prices paid for wheat options per cwt. for the past week:

	June	July	Aug.	Sept.	Oct.	Nov.
Thursday.....	88 3/4	88 3/4	88 3/4	88 3/4	88 3/4	88 3/4
Friday.....	88 3/4	88 3/4	88 3/4	88 3/4	88 3/4	88 3/4
Saturday.....	88 3/4	88 3/4	88 3/4	88 3/4	88 3/4	88 3/4
Monday.....	88 3/4	88 3/4	88 3/4	88 3/4	88 3/4	88 3/4
Tuesday.....	88 3/4	88 3/4	88 3/4	88 3/4	88 3/4	88 3/4

The following are the prices for California cargoes for off coast, nearly due and prompt shipments for the past week:

	O. C.	P. S.	N. D.	Market.
Thursday.....	44 3/4	44 3/4	44 3/4	Quiet but steady.
Friday.....	44 3/4	44 3/4	44 3/4	Inactive.
Saturday.....	44 3/4	44 3/4	44 3/4	Slow.
Monday.....	44 3/4	44 3/4	44 3/4	Sellers offer concessions.
Tuesday.....	44 3/4	44 3/4	44 3/4	Quiet but steadier.

## Eastern Grain Markets.

The following shows the closing prices of wheat at New York for the past week, per cental:

	June	July	Aug.	Sept.	Oct.	Jan.
Thursday.....	177	175	170 1/2	170 1/2	170 1/2	170 1/2
Friday.....	177	175	170 1/2	170 1/2	170 1/2	170 1/2
Saturday.....	177 1/2	175 1/2	170 1/2	170 1/2	170 1/2	170 1/2
Monday.....	177 1/2	175 1/2	170 1/2	170 1/2	170 1/2	170 1/2
Tuesday.....	177 1/2	175 1/2	170 1/2	170 1/2	170 1/2	170 1/2

The closing prices for wheat have been as follows at Chicago for the past week, per cental:

	June	July	Sept.	Dec.
Thursday.....	160 1/2	160 1/2	160 1/2	160 1/2
Friday.....	160 1/2	160 1/2	160 1/2	160 1/2
Saturday.....	160 1/2	160 1/2	160 1/2	160 1/2
Monday.....	160 1/2	160 1/2	160 1/2	160 1/2
Tuesday.....	160 1/2	160 1/2	160 1/2	160 1/2

NEW YORK, June 17.—Wheat—1.09% for June, 1.06% for July, 1.01% for August, 1.01% for September, 1.02% for December.

CHICAGO, June 17.—Wheat—95 1/2c for July, 92c for September and 93 1/2c for December.

## Foreign Grain Review.

LONDON, June 15.—The *Mark Lane Express* says: English wheat shows a tendency to decline. Prices of foreign wheat show an average decline of 6d. Dealings in American red for future delivery show prices are maintained, being quoted at Liverpool at 8s 1d for September delivery. Oats declined 6d. At to-day's market the tone was quiet. English wheats were held for 40s. Trade in foreign was slow. Flour was dull.

## Dried Fruits.

NEW YORK, June 14.—Late in the week there were large forced sales of foreign dried fruit in settlement of an estate. As the goods went to the distributors the tendency will be to keep trade quiet for a time. Apricots wind up weak. In prunes, there is no improvement in bids for new, which are deemed well sold at 8 1/2c. Raisins, 1000 boxes of three-crown, on the wharf, sold at 1.25. Some loose Muscatels went at 80c. The best layers are not plentiful here. It is likely that some parcels will be recalled from Boston. Price unchanged.

NEW YORK, June 15.—Commercial Bulletin: The annual June drop in California prunes on the coast is a subject of more or less interest, but New York seems more affected just now by the June drop in the demand for futures, while spot goods are almost neglected. However, the trade hopes for better things later on. A small line of strictly fancy quality evaporated California peaches, in boxes, sold at 11c per lb. Ordinary stock would do relatively as well at present, although supplies latterly have got into better shape.

## Eastern Wool Markets.

BOSTON, June 12.—The demand for wool is more active. The largest business has been in Spring California, some 590,000 lbs having been sold on private terms, but at low price, supposed to be in the neighborhood of 50c for clean. Considerable Territory wool has also been sold at an average of 22 1/4c, as to quality, and on a scoured basis at 62 1/2c fine, 60 1/2c for fine medium; 55 1/2c for medium new Spring.

NEW YORK, June 12.—Bradstreet's trade in the wool market continues quiet. Manufacturers are taking very little wool and sales are mostly of small lots. The markets are well cleaned out of good wools and inferior grades are not in demand. Values have again declined, owing partly to the inability of dealers to dispose of the stocks at old figures and London cables, which have announced lower prices for some grades. It is said that 348,000 bales are now offered at London. Choice wools are firm at the prices ruling during last sales. Inferior wools show a decline of five per cent. New domestic wools are coming forward slowly. It is impossible as yet to form a correct estimate as to the character of the clip in different States, but judging from that which is already here, it will not be up to that of last year, though the amount will probably be larger. Ohio and Michigan fleeces are still dull and lower. Domestic are all quiet, though choice lots are regarded as good property. Sales of Australian have not been as large as those of last week. Values of best grades are still firm. Very little is doing in carpet wools.

NEW YORK, June 15.—There was a livelier movement in new wool, but no stiffer condition of prices, at any seaboard market. Manufacturers have no large prompt needs, but have begun to take repu-

table marks of unwashed, which they can hold and feel safe as to cleaning cost. Good quantities of old Texas wool are now out of Boston's way; much of it was at buyers' favor. New York's dealings are chiefly in cheap foreign goods. Late English sales supported rates for anything of interest in American use.

## Visible Supply of Grain.

NEW YORK, June 15.—The visible supply of grain in store and afloat, as compiled by the New York Produce Exchange, is as follows: Wheat, 15,502,000 bushels, a decrease of 956,000 bushels; corn, 4,956,000 bushels, a decrease of 651,000; oats, 4,263,000 bushels, an increase of 236,000; barley, 115,000 bushels, a decrease of 33,000.

## New York Fruit Crop.

ROCHESTER, N. Y., June 8.—The *Democrat and Chronicle* has authentic reports from 48 fruit-growing districts of Western New York, which give a most discouraging outlook for fruit this season. The apple crop is again, for the third successive year, almost a complete failure. Of 6000 trees in one Wayne county orchard but 800 blossomed. Reports from Lockport, Medina, Albion, Batavia, Attica and Mt. Morris all tell the same story of short crops. In the Tonawanda valley frosts have destroyed the entire crop. Niagara county will not have a fifth of an average crop because of frosts and apparent exhaustion of trees. The crop of Bartlett pears will be insignificant. A fair yield of Duchesse d'Angouleme pears and a good crop of white cherries in some localities may be looked for.

## Miscellaneous.

NEW YORK, June 13.—Lima beans, choice spot better at \$2.70-\$2.75 per bushel.

In hops the situation is the same, 32c top for all best spot. English crop conditions are reported unfavorable.

## Local Markets.

	Buyer	Season	Seller
Thursday.....	163	167 1/2	163
Friday.....	163 1/2	163 1/2	163 1/2
Saturday.....	163 1/2	163 1/2	163 1/2
Monday.....	163 1/2	163 1/2	163 1/2
Tuesday.....	163 1/2	163 1/2	163 1/2

## \*After August.

	Buyer	Season	Seller
Thursday.....	105 1/2	105 1/2	117 1/2
Friday.....	105 1/2	105 1/2	117 1/2
Saturday.....	105 1/2	105 1/2	117 1/2
Monday.....	105 1/2	105 1/2	117 1/2
Tuesday.....	105 1/2	105 1/2	117 1/2

## \*After July.

BAGS—Large importations, with more consignments near at hand, combined with free supplies held in this State, cause a weak market at 7 1/2c for hand sewed, standard size.

BARLEY—A systematic movement appears to be making to break the spot market. In futures dealing is light. The following are to-day's Call Board sales: Morning Session: Seller 1891—100 tons, \$1.05 1/2; Buyer 1891, after July 1st—100 tons, \$1.17. Buyer 1891, after August 1st—100 tons, \$1.13 1/2. August, 200 tons, \$1.06 1/2; 200, \$1.07 1/2; 100, \$1.07 1/2. Afternoon Session: Seller 1891—100 tons, \$1.05. Buyer 1891, after August 1st—100 tons, \$1.13 1/2.

BUTTER—Warm weather from Saturday up to last night Tuesday, caused holders to be more anxious to sell. With the first signs of weakness buyers were offish. There is more offering for shipment from the Central States.

CHEESE—Continued free receipts and an offish demand cause a weak feeling to prevail.

EGGS—The market is weak and lower under free receipts from the East, with more en route together with the lessened local consumption that always obtains in June and July.

FLOUR—The market is steady at current quotations.

WHEAT—The local sample market is strong under light available supplies and evidences that a corner is being run in buyer options. Press cablegrams from Germany report that the crop will certainly be below an average. France's crop is also short. Trading in our market in futures has been quiet. The following are the reported sales made on to-day's Call:

Morning Session: Seller 1891—200 tons, \$1.54 1/2; 100, \$1.54 1/2. Buyer 1891, after August 1st—700 tons, \$1.62 1/2. Afternoon Session: Buyer 1891, after August 1st—100 tons, \$1.62 1/2; 100, \$1.62 1/2.

## Market Information.

## Produce Receipts.

Receipts of produce at this port for the week ending June 16, were as follows:

Flour, qr. sks.....	57,085	Middlings, sks.....	931
Wheat, cts.....	184,074	Alfalfa, ".....	50
Barley, ".....	28,019	Chicory, bbls., 3	3
Rye ".....	7,124	Broomcorn bbls., 5	5
Oats ".....	2,714	Hops, bbls., 12	12
Corn ".....	7,025	Wool, ".....	1,481
*Butter ".....	1,122	Hay, tons, 2,145	2,145
do bxs ".....	730	Straw ".....	55
do bbls ".....	730	Wine, gals., 184,890	184,890
do kegs ".....	80	Brandy, ".....	3,500
do tubs ".....	73	Raisins, bxs., 12	12
do 1/2 bxs ".....	150	Honey, cts., 12	12
*Cheese, cts.....	783	Walnuts, sks., 12	12
do bxs ".....	783	Flaxseed, ".....	12
Eggs, doz.....	39,930	Mustard, ".....	12
do " Eastern, 188,490	188,490	Almonds, ".....	12
Beans, cts.....	1,310	Peanuts, ".....	12
Potatoes, sks.....	24,613	Popcorn, ".....	12
Onions, ".....	1,971	Beet sugar, bbls., 12	12
Bran, ".....	5,685	do do sks., 12	12
Buckwheat ".....	103		

\*Overland 425 cts. +Overland .... cts.

## Cereals.

London *Agricultural Gazette*, June 1: The wheats have not been well suited by the cold nights and violent changes in temperature which have occurred since the first rains, and there has been more or less loss of color, particularly on poor clays and on the thinner light soils. The same remark will ap-

ply in less degree to the barley and oat crops. In fact, the growing cereals have "gone a Maying" about a month later than usual, but there is no serious harm to be apprehended if they get plenty of sunshine from now forward.

H. Kains Jackson in *London Farmer and Stock Breeder* June 1: In addition to a threatened shortage in the wheat crops of Northwestern Europe, which stimulates free buying of stocks offered, the adopted policy in France of making a Government reserve of 700,000 to 800,000 quarters of wheat, has emphasized demand, and probably will suggest to other governments to go and do likewise.

The local wheat market has held to fairly strong prices throughout the week, considering the strong bear pressure that is being brought against futures. The light supply of available wheat in this State, Oregon and Washington is in favor of holders, and also of the first receipts of new crop, while confirmed advices of a shortage abroad causes the bears to fight shy of too strong a raid. Our exchanges from the East and also from abroad indicate that many farmers will, as usual, market their crop as soon as harvested, which, if correct, will tend to keep values down during the first three months of the harvest year. There are those who believe, and whose opinion is based on statistical information, that before May 1, 1892 we will witness higher prices than have been reached at any time in this year. Crop advices from the East are favorable for a large outturn. In this State the prospects continue of a flattering character, taking the State as a whole. The Oregon Weather Bureau, June 13th, reports as follows: Western Oregon—Fall wheat has lodged in places, but on the whole, never presented better prospects for a large yield. Spring wheat has been greatly benefited by the weather conditions and promises an unusually good crop. Warmer weather and sunshine would be of great benefit. Eastern Oregon—The rain was of great benefit to growing crops. The hot winds of May 25th burnt considerable wheat, but the rains have done far more benefit than the hot winds did damage. Through the wheat districts the rains were not as heavy as in the other sections, but some fell through the entire wheat area. In the Grande Ronde valley, spring wheat is late in coming up, but the present moisture insures the crop. Entire Eastern Oregon and Washington have been favored with suitable weather conditions to further improve the good prospects for an abundant harvest. Free offerings of new barley have caused buyers to bid down. It now looks as if some of the so-called commission houses are trying to force prices to as low a level as possible, but it is only just and right to say that there are other houses trying to sustain the market. The samples exhibited so far on Call are a much better average than was shown in the commencement of the season last year. There can be no doubt but the crop will not equal the requirements although the outturn will be more than it was in 1890. In Eastern Oregon and Eastern Washington, it is feared that the crop will be injured by hot weather, notwithstanding the promising outlook at this writing. In 1889, hot weather at about this time burnt up the bulk of the crop. There, as in California, farmers are seldom out of the woods until after the grain is harvested.

Notwithstanding the available supply of oats is light the market is weak in sympathy with barley. Crop prospects are good in this State and Western Washington. Corn is barely steady. The light available supply, causes the market to be extremely feverish. Forced purchases have to be made at higher prices than we quote, while force sales are difficult to make at quotations. Heavy receipts of rye cause the market to rule easy.

## Feedstuff.

Poor pasturage creates a good demand for feed, and as the supply of grain and middlings are never very large at this season of the year, millers have marked up prices another fraction. Ground barley is weak at lower prices. Feed meal is steady.

Poor to fair hay is offering more freely, and for which concessions are obtainable. Choice to extra choice grades are strongly held. Some heavy contracts are reported, but the prices agreed on are not divulged. It is claimed they average about 10 per cent more than at a like time in 1890.

## Live-stock.

The market for bullocks, mutton sheep, calves and hogs does not show any material change. The liberal supply of fruits and vegetables and fears of warm weather are against sellers. In both Nevada and Arizona, bullocks are appreciating.

The market for dressed cattle is quoted as follows [to obtain the price on foot, take off from the price for stall-fed one-third to one-half, according to the nature of the feed and time fed; and for grass-fed take off the price from 40 to 60 per cent]:

HOGS—On foot, light grain fed, 5 1/2c @ 5 3/4c # lb. dressed, —@—c # lb.; heavy, 5 1/2c @ 5 3/4c # lb.; dressed, —@—c # lb. Stock hogs, 4 1/2c @ 4 3/4c # lb.

BEEF—Stall fed, 6 1/2c @—c # lb.; grass fed, extra, 6 @—c # lb.; first quality, 5 1/2c @—c # lb.; second quality 5 @—c # lb.; third quality, 4 @—c # lb.; bulls and thin cows, 2 @ 3c # lb.

VEAL—Small, 6 @ 7 1/2c # lb.; large, 5 @ 6 1/2c.

MUTTON—Wethers, 7 1/2 @ 8c # lb.; ewes, 7 @ 7 1/2c # lb.; spring lamb, 7 1/2 @ 9c # lb.

## Fruits.

Warm weather the past week is forcing the ripening of berries, cherries, peaches and apricots, which naturally creates freer shipments to this city. Blackberries and raspberries are in liberal supply and at lower prices. Canners will soon be able to handle the former. It is claimed that they will put up this year largely increased quantities of blackberries. Peaches are coming in freely. The receipts indicate that the quality this year will be unusually good. Pears and apples are improving slowly. Australia sent us by the last steamer nearly 2500 boxes of good to extra choice.

Canners are paying the following prices per ton: \$40 @ 50 for Clingstone peaches; \$35 @ 45 for Free-stones; \$30 @ 37.50 for apricots; \$35 @ 42.50 for Bartlett pears; \$25 @ 42.50 for canning plums, and \$50 for drying plums.

The bulk of this year's cherries have been marketed, as is that of currants. As cherries are riper, shipments to the East are falling off.

Raisins are still dull and heavy. It now looks as if last year's pack in this State was fully 2,500,000. Had those packers who did not sell in the forepart of the season, not been misinformed by papers working in the interest of San Francisco buyers

(buyers who wished to sell their early purchases, while getting packers who did not sell to hold), they would have sold before the 1890 holidays and made money by it. We gave the pack at over 2,000,000 boxes, while other papers gave it at from 1,200,000 to 1,500,000 boxes.

Oranges are going out. Good-keeping seedlings and Mediterranean sweets are wanted, but over-ripe are slow of sale.

## Vegetables.

Garden truck continues to come in freely. Canners are running on peas and beans. Bay cucumbers are coming in, which means lower prices. Summer squash and other late truck are making a better showing.

As onions improve in quality, the demand enlarges, causing a stiffer market to rule.

Old potatoes are taken chiefly for feed. New potatoes are generally of good quality—better if anything, than last year. Free shipments overland are continued.

## Miscellaneous.

Poultry is generally firm at a slight advance. Receipts from the East are slower.

New crop honey is arriving. It sells in comb at a slight advance. It is now conceded that this year's crop in California will fall short of last year's yield.

Beans are slow. The supply is light, but the acreage planted this year is fully 25 per cent larger than in last year. The growing crop looks promising.

Old hops are virtually out of the market. Contracts are making for new at from 18c to 20c. It is claimed by some that some contracts have been made at an advance on the latter figure.

Wool continues to go out slowly. Stocks are large and assortments good, but buyers' views are not up to those of holders. The outlook promises better prices before the fall months pass.

Overland shipments in last month aggregate as follows, in pounds, over the Southern Pacific railroad route: Beans, 734,950; brandy, 358,230; fruit, dried, 302,700; deciduous, 489,970; deciduous and citrus, 5,929,280; hops, 91,240; potatoes, 4,751,490; raisins, 319,100; vegetables, 1,438,190; wine, 5,880,690; hay, 51,020; wool, grease, 3,869,360; pulled, 77,850; scoured, 162,640.

From reliable advices up to June 17, the following summary of tonnage movement is compiled:

	1891.	1890.
On the way to		
San Francisco.....	317,780	241,003
San Diego.....	26,018	13,535
San Pedro.....	14,642	1,384
Oregon.....	27,164	26,136
Puget Sound.....	30,050	32,323
Totals.....	415,654	314,381

## In port at

San Francisco, disengaged.....	15,526	9,593
" " engaged for wheat.....	28,984	26,600
" " for new crop.....	27,300	—
San Diego.....	2,581	—
San Pedro.....	2,009	5,999
Columbia River.....	13,447	—
Puget Sound.....	—	—

Totals..... 89,847 42,192

To get the carrying capacity, add 65 per cent to the registered tons as given above.

From July 1, 1890, to June 11, 1891, the following are the exports from this port: 1891. 1890.

Wheat, cts.....	13,425,019	13,393,578
Flour, bbls.....	1,107,685	1,082,178
Barley.....	257,248	952,248

## Auction Sales of California Fruit.

CHICAGO, June 12.—Sold one carload of Tartarian cherries at \$1.10 to \$1.25. Some in poor order were sold for less. Another sale of a carload Black Tartarian cherries sold for 90 cents to \$1.30; Royal Anne cherries for \$1.35 to 1.50, and Black Bigarreau for \$1.05 to \$1.50.

NEW YORK, June 12.—One carload of choice Black Tartarian and Black Bigarreau varieties of cherries from the California Fruit Union. They sold by auction at prices ranging from 65 cents to \$2 per box.

CHICAGO, June 13.—One carload black cherries sold for 65c @ \$1.20. White, 55c @ 90c.

NEW YORK, June 14.—Peaches—The first brought \$3 per box for such as would ripen up well. The Delaware crop is assured heavy. Cherries—A good feature; very showy tartarians quick at \$4.75; running range 65c @ \$2.50; fancy white, \$3.50. Philadelphia will hold auction sales of California fruits this season. As New York parties are interested the system may be turned to account when the excessive surplus is here.

CHICAGO, June 16.—One carload cherries at 65c @ \$1.10. The entire carload arrived in very bad condition, the fruit being over-ripe, soft and some of the boxes leaking. Two carloads sold as follows: Clyman plums brought \$3.65 @ 3.70; cherry plums, \$1.65; cherries, 75c @ \$1.50; Royal apricots, \$2.05 @ 2.15; peaches, \$1.50 @ 1.85.

## Fruits and Vegetables.



PACIFIC COAST WEATHER FOR THE WEEK.

(Furnished for publication in this paper by officer in charge of branch Signal office, Division of the Pacific.)

DATE. June 16.	Olympia.				Portland.				Eureka.				Red Bluff.				Sacramento.				S. Francisco.				Fresno.				Keeler.				Los Angeles.				San Diego.			
	W.	T.	F.	N.	M.	T.	Rn.	Weather.	Wind.	Temp.	Rn.	Weather.	Wind.	Temp.	Rn.	Weather.	Wind.	Temp.	Rn.	Weather.	Wind.	Temp.	Rn.	Weather.	Wind.	Temp.	Rn.	Weather.	Wind.	Temp.	Rn.	Weather.	Wind.	Temp.	Rn.					
W.	.T	.02	.18	.04	.01	.20	.30	.75	62 Nw	70 Nw	62 W	58 SW	62 W	60 S	68 N	Cy.	62 Nw	70 Nw	62 W	58 SW	62 W	60 S	68 N	Cy.	62 Nw	70 Nw	62 W	58 SW	62 W	60 S	68 N	Cy.	62 Nw	70 Nw	62 W	58 SW	62 W	60 S	68 N	Cy.

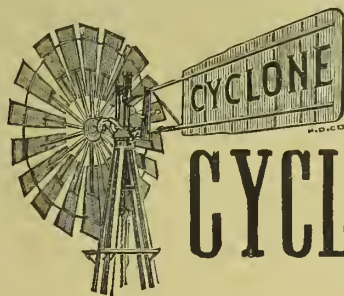
EXPLANATION. Cl. for clear; Cy. cloudy; Fr. fair; Cn., calm; - indicates too small to measure. Temperature wind and weather at 5 p. m. (Pacific Standard time) with amount of rainfall in the preceding 24 hours. T indicates trace of rainfall. P C, partly cloudy. Rn., rain.

Domestic Produce.

Extra choice in good packages fetch an advance on top quotations, while very poor grades sell less than the lower quotations.

WEDNESDAY, June 17, 1891.

BEANS AND PEAS.		NUTS—JOBBER.	
Bayo, chl.	3 15 @ 3 35	Walnuts, Cal. lb	7 1/2 @ 9
Butter	2 70 @ 3 05	do Ch'ce.	8 @ 9 1/2
Pea	3 00 @ 3 30	do paper shell	9 @ 9 1/2
Red	2 50 @ 2 75	do Ch'ce.	8 @ 9
Pink	2 20 @ 2 40	Almonds, hd shl.	1 @ 1 1/2
Small White	2 95 @ 3 10	Softshell	15 @ 1 1/2
Lima	3 00 @ 3 25	Paper shell	16 @ 1 1/2
Old Peas, blk eye	1 70 @ 2 00	Brazil	7 1/2 @ 8
do green	1 50 @ 2 50	Pecans small	12 @ 14
do Eastern do	2 50 @ 3 00	do large	15 @ 17 1/2
do Niles	1 65 @ 1 75	Peanuts	4 @ 5
Split	4 1/2 @ 5 1/2	Filberts	10 @ 11 1/2
BROOM CORN.		Hickory	7 @ 8
Ch'ce to Extra 100	00 @ 115 00	Chestnuts	12 @ 15
Fair to Good	70 00 @ 95 00	Pine	9 @ 11
Poor	50 00 @ 60 00	ONIONS.	
CHICOORY.		Red	55 @ 75
California	5 1/2 @ 6	Silver Skin	75 @ 1 00
German	6 @ 6 1/2	POTATOES.	
DAIRY PRODUCE, ETC.		Early Rose, sks.	65 @ 90
BUTTER.		Peerless	90 @ 1 00
Cal. Poor to fair	15 @ 18	New in boxes are from 10 to 40 cts higher than in sacks.	
do good to choice	17 1/2 @ 21	POLTRY AND GAME.	
do Gilted	21 @ 23	Hens, doz.	6 00 @ 8 00
do Creamery rolls	21 @ 23	Roosters, old	5 50 @ 6 75
do Eastern	15 @ 18	do young	9 00 @ 12 50
CREASE.		Broilers, small	3 00 @ 4 50
Cal. choice mild	9 @ 10	do large	5 50 @ 7 00
do fair to good	8 @ 9	Fryers	6 50 @ 8 50
do gilt edged	9 1/2 @ 10	Ducks, old	4 00 @ 5 00
Young American	9 @ 10	do young	5 50 @ 7 00
N. York Cream	12 @ 13	Geese, pair	1 00 @ 1 50
Western	11 @ 12	Goelings	1 50 @ 1 75
EGGS.		Turkeys, Goblr.	19 @ 22
Cal. ranch, doz.	22 @ 23	Turkeys, Hens	17 @ 19
do do selected	23 @ 24	Pigeons	1 75 @ 2 50
do store	18 @ 20	Rabbits, doz.	1 00 @ 1 25
Eastern	19 @ 21	Hare	1 @ 1 00
FEED.		HAY.	
Bran, ton	20 50 @ 22 00	Wheat, per ton	15 00 @ 16 00
Feed meal	35 @ 38 00	do choice	16 00 @ 17 00
Gr'd Barley	27 00 @ 28 00	Wheat and Oats	12 00 @ 14 50
Middlings	24 50 @ 26 00	Wild Oats	10 00 @ 13 50
Oil Cake Meal	25 00 @ 27 00	Tame do	11 00 @ 13 00
Manhattan Food	100 lbs 7 50	Barley	11 00 @ 13 00
HAY.		Alfalfa	9 00 @ 11 00
Wheat, per ton	15 00 @ 16 00	do	11 00 @ 13 00
do choice	16 00 @ 17 00	Clover	11 00 @ 13 00
Wheat and Oats	12 00 @ 14 50	do	13 00 @ 15 00
Wild Oats	10 00 @ 13 50	Straw bale	65 @ 75
Tame do	11 00 @ 13 00	FLOUR.	
Barley	11 00 @ 13 00	Extra, City Mills	5 40 @ 5 50
Alfalfa	9 00 @ 11 00	do Co'try Mills	5 25 @ 5 50
Clover	11 00 @ 13 00	Superfine	3 75 @ 4 25
Straw bale	65 @ 75	GRAIN, ETC.	
FLOUR.		Barley, feed, chl	1 22 @ 1 25
Extra, City Mills	5 40 @ 5 50	do Choice	1 25 @ 1 30
do Co'try Mills	5 25 @ 5 50	do Brewing, old	1 55 @ 1 60
Superfine	3 75 @ 4 25	do do Ch'ce, old	1 60 @ 1 65
GRAIN, ETC.		do do Gilted	1 62 @ 1 65
Barley, feed, chl	1 22 @ 1 25	Buckwheat	1 25 @ 1 50
do Choice	1 25 @ 1 30	Corn, White	2 10 @ 2 15
do Brewing, old	1 55 @ 1 60	Yellow, large	1 80 @ 1 85
do do Ch'ce, old	1 60 @ 1 65	do, small	1 82 @ 1 85
do do Gilted	1 62 @ 1 65	Oats, milling	1 85 @ 1 90
Buckwheat	1 25 @ 1 50	Surprise	1 93 @ 1 95
Corn, White	2 10 @ 2 15	Feed, Ch'ce	1 35 @ 1 40
Yellow, large	1 80 @ 1 85	do good	1 82 @ 1 85
do, small	1 82 @ 1 85	do fair	1 75 @ 1 80
Oats, milling	1 85 @ 1 90	do Gray	1 75 @ 1 80
Surprise	1 93 @ 1 95	Rye	1 25 @ 1 32 1/2
Feed, Ch'ce	1 35 @ 1 40	Wheat, milling	1 86 1/2 @ 1 90
do good	1 82 @ 1 85	Gilt edged	1 83 1/2 @ 1 88
do fair	1 75 @ 1 80	do Choice	1 83 @ 1 88
do Gray	1 75 @ 1 80	do fair to good	1 89 @ 1 90
Rye	1 25 @ 1 32 1/2	Shipping, cho'ce	1 75 @ 1 80
Wheat, milling	1 86 1/2 @ 1 90	do good	1 73 1/2 @ 1 78
Gilt edged	1 83 1/2 @ 1 88	do fair	1 70 @ 1 75
do Choice	1 83 @ 1 88	Sonora	1 70 @ 1 75
do fair to good	1 89 @ 1 90	HIDES.	
Shipping, cho'ce	1 75 @ 1 80	Dry lgt to h'vy	9 1/2 @ 10
do good	1 73 1/2 @ 1 78	Salted	8 @ 9 1/2
do fair	1 70 @ 1 75	Oregon, 1890	30 @ 32
Sonora	1 70 @ 1 75	Cal 1890 Choice	30 @ 32
HIDES.		do Fair to G'd	25 @ 28
Dry lgt to h'vy	9 1/2 @ 10	ROPE.	
Salted	8 @ 9 1/2	Baling, Duplex, lb	.....
Oregon, 1890	30 @ 32	Manilla, lb	.....
Cal 1890 Choice	30 @ 32	Twine, for hops, balls, tarred, lb	.....
do Fair to G'd	25 @ 28	grape vine, balls, lb	.....
ROPE.		coils, lb	.....
Baling, Duplex, lb	.....	spring, lb	.....
Manilla, lb	.....	hinder (550 ft. to lb), lb	.....
Twine, for hops, balls, tarred, lb	.....	Duplex twine 3c per lb less.	.....
grape vine, balls, lb	.....	WISCONSIN TIP.	
coils, lb	.....	J. M. Cuykendall, Ripon, Wis., writes: "I have received more benefit from one trial box Quinn's Ointment than from six bottles of other preparations all used for same purpose." Curbs, Splints, Spavins, Windpuffs, Bunches, use it. Trial box 25 cents, silver or stamps. Regular size, \$1.50 delivered. Address W. B. Eddy & Co., Whitehall, N. Y.	



# THE RELIABLE CYCLONE WINDMILL.

No story need be told of the Cyclone or of the number that have been sold. They can be seen working in every inhabited part of the Pacific Slope whilst hundreds are exported every year. The Cyclone mill is not an experiment, but acknowledged by all who have used it to be the most powerful and durable mill on the market. It is simple in construction, has no cogs or complicated gearing to get out of order. Has only three principal bearings, heavily babbitted boxes and self oiling apartments. The wheel and vane of the Cyclone (which are the most durable parts of any solid wheel mill) are made strong and of well seasoned wood finished with the best lead and oil which neither blister in the sun nor is consumed by rust. Send for Illustrated Catalogue to

## Pacific Manufacturing Company,

575 MISSION ST., SAN FRANCISCO, CAL.

Manufacturers and Jobbers of Windmills, Pumps, Tanks, TUBULAR WELL TOOLS, Pipe, Fittings, Etc., Etc.

# INSURE YOUR DWELLING, BARN and GRAIN

WITH THE



INSURANCE COMPANY OF SAN FRANCISCO, CAL.

HONEST LOSSES PAID IN CASH.

# WASHING FREE!

The best bargain ever offered in Washing Machines for Hotel use is the celebrated

## HUMBOLDT WASHER,

Which always sold for \$10 and \$12, but is now offered at

\$5.00 CASH.

It is a Western machine, controlled by a live man, who is not ready to admit that California must take a back seat in manufacturing. It is worth any three \$5 Eastern machines.

Bargains in every line for everybody. Shoes, 40 per cent reduction on regular prices. Dress Fabrics at 5c, 8c, 10c, 12c, and upward, that are worth almost, or quite, double. Send for samples and find this true. Canned fruit from \$1 per dozen up. Raisins from 4 cents per pound to 7 cents. Our Home Circle mailed free. ask for it.

## SMITH'S CASH STORE,

416-418 FRONT STREET.

## JAPANESE INSECT DESTROYER

For the protection of Cabbage, Squash, Cucumbers, in fact all vegetation from destructive insects. Contains no poison. Price by mail 25c. Stamps accepted. Friend Medicine Co., Graham, Neb.

# THE JUDSON RABBIT-PROOF WIRE & PICKET FENCE.

fence colored RED by boiling in a chemical solution that preserves the wood. Address JUDSON MANUFACTURING COMPANY, 14 and 16 Fremont Street, San Francisco.

# "PRESERVATIVE"

ACKNOWLEDGED THE BEST AND ONLY

## Pure Preservative

—FOR—

## MILK, CREAM, BUTTER AND CHEESE.

Will keep Milk and Cream sweet and fresh even in the warmest and muggiest weather. Butter and Cheese kept fresh in their original condition for many months.

It has been the aim of science these many years to counteract the disadvantageous influence exercised by heat and atmospheric changes upon animal and vegetable food. The experiments have been many and the remedies proposed very numerous, but all were found to be ineffectual, impracticable and useless until the discovery of Preservative was made.

## A Simple Experimental Test.

Persons who wish to convince themselves of its effectiveness should send for sample, which we mail free, and by taking two separate quarts of new milk; into one put 1/4 of a teaspoonful of Preservative; put nothing into the other, and set them side by side so that the temperature of the milk may be the same. See which keeps sweet the longer and which raises the more cream.

Preservative is the only genuine preservative that has ever been discovered. It is the cheapest, because it is not only the BEST, but because, at the same time, it is Harmless, Tasteless, Odorless, Simple, Economical, and, above all, absolutely Effective.

Circular giving full directions how to apply Preservative, as also prices and other information desired, can be had of

## G. G. WICKSON & CO.,

3 & 5 Front St., San Francisco, Cal.

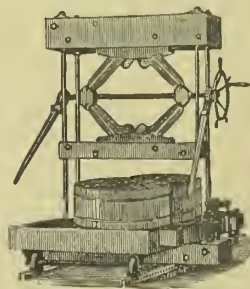
141 Front St., Portland, Or.

346 N. Main St., Los Angeles, Cal.

## WORTH'S PATENT

Combined Screw and Toggle Lever

## WINE, CIDER AND OLIVE PRESS.



Using two baskets so that while one is under the press the other can be emptied and filled ready to move under the press as soon as the first basket is pressed. First Premium awarded at all fairs wherever exhibited. Parties desiring a press combining Power, Speed and ease to handle, can see them at the leading wineries on the Pacific Coast.

The following extracts from well known wine-makers are quotations from letters received by us:

"I find your press as it was represented to me; will continue to use it as long as I need one."—S. C. STONEY, Bennett Valley, Santa Rosa P. O.

"It is my choice of any wine press yet seen by me." L. A. NORTON, Healdsburg.

"We have, in addition to two other presses, one of your make, and can testify that it gives entire satisfaction."—HAMER & FIELDMEYER, Geyserville.

"The wine press I purchased of you has given complete satisfaction. I think it is one of the best wine presses made."—A. P. KERCKHOFF, Los Angeles.

"The new elevator works well and is a great improvement on the canvas elevators that we used last year." I. DE TURK, Per W. H. L.

"The wine press I bought of you gave entire satisfaction. It is the best wine press I have ever used and would recommend it to any wine men."—W. I. HOTCHKISS, Healdsburg.

Also Worth's Improved Grape Elevators, Improved Continuous Pressure Hydraulic Presses, Worth's Patent Power Grape Stemmer and Crusher, Worth's Patent Ho se Power, and all kinds of machinery for wine-makers. The Large Toggle Lever and Screw Press is capable of a pressure of 206 tons or 300 pounds to the square inch, the small press has 36 tons or 540 pounds to the square inch.

W. H. WORTH, Petaluma Foundry and Machine Works, F. O. Box 288, Petaluma, Sonoma County, Cal.

## FRANCIS SMITH & CO.,

Manufacturers of

## Sheet Iron and Steel PIPE!

ALL SIZES.

130 Beale Street, San Francisco, Cal.

Iron cut, punched and formed, for making pipe or ground. All kinds of Tools supplied for making Pipe. Estimates given. Are prepared for coating all sizes of Pipe with a composition of Coal Tar and Asphaltum.

CHEAPER and BETTER than Ever. Their 2-ft. high 8-cable fence has taken the trade. Farmers put barbed wire above it and have the CHEAPEST GOOD Fence that can be made in ANY WAY. Rabbits cannot get through. Hogs cannot break it and Horses or Cattle cannot get over it. All our



## Cause of Forest and Other Fires.

The increasing frequency and wide devastation caused by forest fires is causing much uneasiness in the Eastern States. To assign the cause of such fires as a general thing is impossible. But there is a practical unanimity about the excessive carelessness. Many forest fires are supposed to be started intentionally in sparsely settled districts by whortleberry pickers, as it is well known that land where that berry flourishes furnishes a largely increased amount of such fruit for several years after being burned over.

Farmers often debate the following question: "Is it better to refuse a tramp lodging, and incur his hatred, or let him sleep in a barn, and burn it by smoking?" Mining accidents have often been caused by carelessness, but wise supervision has resulted in a marked decrease in explosions. The way matches are scattered about in private houses and business offices is appalling. Without knowing, it is reasonable to suppose that many forest fires are due to the carelessness of smokers, or to the thoughtlessness of men who fail to see that their campfires are thoroughly extinguished. There will always be incendiaries, but they form only a small fraction of society. It is not deliberate crime so much as carelessness that is responsible for these outbreaks.

The annual statements of sums paid out by fire-insurance companies seem large, but the actual marvel is that the number of fires is not much larger than it really is. Recklessness seems to be the rule, and prudence the exception. Boys scatter explosives for weeks before and several days after the Fourth of July. In nearly every factory, the careless manner in which kerosene is handled rouses dread apprehensions among the timid. Constantly, half-consumed but still-burning cigars are thrown away. Thrown on a pavement, they are probably extinguished by the heel of the next pedestrian, but if thrown on the dry leaves of the forest, they may do terrible damage.

## Our Agents.

OUR FRIENDS can do much in aid of our paper and the cause of practical knowledge and science, by assisting Agents in their labors of canvassing, by lending their influence and encouraging favors. We intend to send none but worthy men.

GEO. WILSON—Sacramento Co.  
J. C. HOAG—San Francisco.  
F. W. KNAPP—Amador Co.  
G. B. GILL—San Luis Obispo Co.  
E. L. RICHARDS—Escondido, Cal.  
FRANK S. CHAPIN—Tulare Co.  
B. F. BRUT—Shasta Co.  
J. H. P. WILLIAMS—Tulare Co.  
A. S. COOLEY—Tehama Co.  
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HERMAN STANLEY—Modoc Co.  
C. J. WADE—San Bernardino Co.  
J. H. CROSBY—San Bernardino Co.  
E. H. SCHAEFFER—Central California.  
WM. M. HILLARY—Oregon.  
F. B. LOGAN—Arizona.

## NEWSPAPER AGENTS WANTED.

Extra inducements will be offered for a few active canvassers who will give their whole attention (for a while at least) to soliciting subscriptions and advertisements for this journal and other first-class popular newspapers. Apply soon, or address this office, giving address, age, experience and reference. Special inducements to old agents.

DEWEY & CO., Publishers,  
No. 220 Market St., S. F.

THE MOON AND THE BAROMETER.—By a comparison of records extending over a number of years, it has been concluded that the moon has an influence in lowering the height of the barometer in the months from September to January, at the time of full moon, and in raising it during the first quarter. No effect has been perceived in the other months.

## Complimentary Samples.

Persons receiving this paper marked are requested to examine its contents, terms of subscription, and give it their own patronage, and as far as practicable aid in circulating the journal, and making its value more widely known to others, and extending its influence in the cause it faithfully serves. Subscription, paid in advance, 5 mos. \$1; 10 mos., \$2; 15 mos., \$3. Extra copies mailed for 10 cents, if ordered soon enough. If already a subscriber, please show the paper to others.

DECREASE OF MOUNTAIN HEIGHT.—No less than four different mountain peaks in Idaho are now from 13 to 23 feet lower than they were 15 years ago. This settling is supposed to be going on in many others. The cause of the settling is generally supposed to be the presence of quicksands at their base.

\$500,000

TO LOAN IN ANY AMOUNT AT THE VERY LOWEST market rate of interest on approved security in Farming Lands. A. SCHULLER, Room 8, 420 California St., San Francisco.

\$3,250,000

TO LOAN ON MORTGAGE ON RANCHES AND CITY real estate below market rates. HOWE & KIMBALL, 508 California St., S. F.

## Good News!

No one, who is willing to adopt the right course, need be long afflicted with boils, carbuncles, pimples, or other cutaneous eruptions. These are the results of Nature's efforts to expel poisonous and effete matter from the blood, and show plainly that the system is ridding itself through the skin of impurities which it was the legitimate work of the liver and kidneys to remove. To restore these organs to their proper functions, Ayer's Sarsaparilla is the medicine required. That no other blood-purifier can compare with it, thousands testify who have gained

## Freedom

from the tyranny of depraved blood by the use of this medicine.

"For nine years I was afflicted with a skin disease that did not yield to any remedy until a friend advised me to try Ayer's Sarsaparilla. With the use of this medicine the complaint disappeared. It is my belief that no other blood medicine could have effected so rapid and complete a cure."—Andres D. Garcia, C. Victoria, Tamailpas, Mexico.

"My face, for years, was covered with pimples and humors, for which I could find no remedy till I began to take Ayer's Sarsaparilla. Three bottles of this great blood medicine effected a thorough cure. I confidently recommend it to all suffering from similar troubles."—M. Parker, Concord, Vt.

## Ayer's Sarsaparilla,

PREPARED BY

DR. J. C. AYER & CO., Lowell, Mass.  
Sold by Druggists. \$1, six \$5. Worth \$5 a bottle

## How to Make Money

SURPRISING INDUCEMENTS OFFERED TO LADIES and Gentlemen to get up Clubs for our Celebrated

## TEAS, COFFEES &amp; SPICES.

Special terms to consumers. Catalogue mailed free on receipt of name and address.

## Great American Importing Tea Co.

52 to 58 Market St., San Francisco.

Agents wanted every where.



**HIRES**  
ROOT BEER  
THE GREAT HEAD DRINK.  
Package makes 6 gallons.  
Delicious, sparkling, and  
appetizing. Sold by all  
dealers. FREE a beautiful  
Picture Book and card  
sent to any one addressing  
C. E. HIRES & CO.,  
Philadelphia.

## FOR SALE.

Forty Acres of good land one mile from St. Helena, Napa County, on road to Rural Health Retreat. Sixteen acres in vines of best varieties, in full bearing, together with about 200 fruit trees; three acres of alfalfa; one acre of garden; remainder of land susceptible of cultivation; at present covered with timber. Place well fenced and cross-fenced. New two-story house of eight rooms and closets, hard finished; a good stone cellar under all, 43x23 feet, furnished with first-class cooperage, capacity 14,000 gals., and all the implements for making wine; a stone dairy; large two-story barn (new) and all necessary farming implements; two wells of good water. A FINE HOME. Price \$9000, half cash, balance on time. Address "Farmer," at this office, or G. M., Box 52, St. Helena, Napa Co., Cal.



## MAKES THE BEST BREAD.

JAMES M. HAVEN.

THOMAS F. HAVEN,  
Notary Public.

**HAVEN & HAVEN,**  
ATTORNEYS AND COUNSELORS AT LAW,  
No. 530 California Street,

Telephone No. 1746.

SAN FRANCISCO, CAL.

## TO SHIPPERS!

## California Ventilated Barrel

EXCELS ALL OTHERS!

IT IS LIGHTER, STRONGER, MORE DURABLE AND BETTER VENTILATED THAN ANY OTHER BARREL.

This engraving of the CALIFORNIA VENTILATED BARREL makes plain to the practical shipper its points of superiority over the common barrel, which may be enumerated as follows:

It weighs from five to seven pounds less than the ordinary barrel, making a material saving in freight charges.

It costs less than one-half for trimming, and does not require an experienced hand to cooper it.



It is the only thoroughly ventilated barrel made, a very important point.

The heads are warranted not to come out in transit, and no liners are required.

It is stronger and more durable than any other barrel.

Never varies in size, even to the extent of a quart.

—ALTOGETHER MAKING IT—

**The Cheapest and Best Barrel on the Market.**

It is Made of the Best Quality of Spruce, Woven Together with Copper Wire, And can be furnished in any size desired.

THE CALIFORNIA BARREL IS ADAPTED TO SHIPPING THE FOLLOWING ARTICLES:

Apples,  
Oranges,  
Onions,  
Potatoes,

Sweet Potatoes,  
Dried Meats,  
Bottled Goods,

Glassware,  
Canned Meats,  
Crockery,

Eggs,  
Poultry,  
Walnuts,  
Almonds,

And Vegetables of All Descriptions.

A factory making these barrels is now in operation in San Francisco, with a capacity of 4000 barrels a day. The success of the barrel is almost unprecedented, and it is bound to become the package in a very short time. EVERY ONE USING IT IS ENTHUSIASTIC IN ITS PRAISE. IT HASN'T A FAULT. When shipped in knock-down form, about 2500 barrels can be placed in a single car. Special rates given on car lots. WRITE FOR PRICES AND PARTICULARS.

## California Ventilated Barrel Co.,

No. 403 MARKET STREET, - - - SAN FRANCISCO, CAL.

FACTORY: N. W. Cor. Powell and North Point Streets.

## MERY'S IMPROVED PIONEER BARLEY CRUSHER

— USING —

The Benoit Corrugated Rollers,

STILL AT THE FRONT.



This Mill has been in use on this Coast for 10 years, TAKEN THE PREMIUM AT THE STATE FAIR

Four years in succession, and has met with general favor, there now being

Over 250 of them in use in California, Nevada and Oregon.

It is the most economical and durable Feed Mill in use.

I am sole manufacturer of the Corrugated Roller Mill. The Mills are all ready to mount on wagons.

GRAINLAND, BUTTS CO., CAL., June 9, 1887.  
MR. M. L. MERY—Dear Sir: We have used one No. 2 Roller Barley Crusher now for eight years and have used it steady during that time; have crushed 45 tons a day and the Crusher is as good to-day as when it came out of your shop. I am satisfied that it is the best mill made. You may reconstruct this testimonial to the best advantage for you and sign our names, for you cannot overrate the merits of your mill.  
F. E. KEAM.  
JNO. P. SUTTON.

DURHAM, May 21, 1887.  
MR. M. L. MERY—Dear Sir: In reply to yours of the 19th, would say that I crushed from two to two and a half tons per hour, but could crush three and a half tons if my elevators were large enough to carry the barley from the machine. The No. 1 machine I used at Gridley was run on a sack a minute, but if we got behind we could run through five tons an hour and do good work. The machine I use here is a No. 2. Yours,  
WM. M. TAYLOR.

I thank the public for their kind patronage received thus far, and hope for a continuance of the same.

M. L. MERY, Chico Iron Works, Chico, Cal.

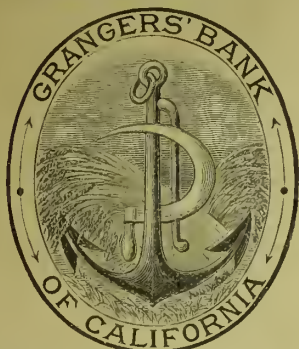
ENDLESS

GANDY THRESHER BELTS.  
BEST IN THE WORLD.

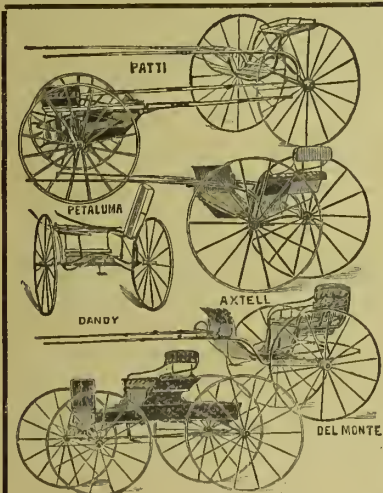
FRENCH & LINFORTH, 35 Beale St., San Francisco,  
SOLE AGENTS PACIFIC COAST.

DEWEY & CO. { 220 MARKET ST., S. F. } PATENT AGENTS.  
Elevator, 12 Front.



**GRANGERS' BANK**OF CALIFORNIA,  
SAN FRANCISCO, CAL.  
Incorporated April, 1874.Authorized Capital.....\$1,000,000  
Capital paid up and Reserve Fund 800,000  
Dividends paid to Stockholders... 675,000

## OFFICERS.

A. D. LOGAN.....President  
I. C. STEELE.....Vice-President  
ALBERT MONTELLIER.....Cashier and Manager  
FRANK McMULLEN.....Secretary  
General Banking Deposits received, Gold and Silver.  
Bills of Exchange bought and sold. Loans on wheat and  
country produce a specialty.  
January 1, 1891. A. MONTELLIER, Manager.DAISY WAGON  
Write us for prices and full particulars. Address  
TRUMAN, HOOKER & CO.,  
SAN FRANCISCO.....and.....FRESNO.**"Neponset" Waterproof Paper.**  
NEPONSET MILLS.THESE PAPERS are all  
guaranteed to be  
absolutely  
water proof,  
air-tight and  
odorless.For sheath-  
ing and lining  
of buildings;  
for roofing of  
factories,  
storehouses  
and farm  
buildings.They are  
entirely un-  
affected by  
heat, cold,  
snow or rain.**"NEPONSET" SHEATHING** (color black).  
NO. 1 "NEPONSET" ROPE ROOFING col. (terracotta).  
NO. 2 "NEPONSET" ROPE ROOFING (color terra cotta).These papers are in rolls 36 inches wide, and they con-  
tain either 250 or 500 square feet per roll, and weigh  
about 20 or 40 pounds per roll, respectively.**DIMMICK & LOW, Agents,**  
221 Front Street, - - San Francisco, Cal.**PROTECT YOUR TREES  
FROM SUNBURN, BORERS  
RABBITS, ETC.,**

By Using the

**Pacific Tree Protector.**Waterproof, Adjustable & Convenient.  
Saves Time, Trouble & Expense.No. 1 Tarred Felt, Vermin and Water-  
proof, good for 3 yrs, 7x16, \$2.50 100.  
No. 2 Patent Insect-proof, Heavy,  
7x16, \$1.50 per 100.No. 3 Patent Insect-proof, Light, 7x16, \$1 per 100.  
Special Sizes made to order. Orders promptly filled by**THE PACIFIC ROLL PAPER CO.,**

30 and 32 First Street, San Francisco.

Also headquarters for Fay's Patent Manilla-Leather  
Roofing and Building Papers; Cheapest and Best in the  
Market. Send for Samples.**DEWEY****ENGRAVING COMPANY**  
Make the best of Photo-Engraving, Relief  
Printing Plates, Fine Zincographs, Wood  
Engravings, Society and Business Seals,  
Negatives, Blue Prints, Photo-Lithographic Transfers,  
Magic Lantern Slides and other Special Photographic,  
and nearly all kinds of Engravings. Our Photo-facsimile or**HALF-TONE ENGRAVINGS**  
By our New Secret Processes, are unsurpassed by any  
others. Prices Uniformly Reasonable. Send for Samples  
and Estimates. 220 Market St., San Francisco.**THE GIANT POWDER COMPANY.**

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**NOBEL'S DYNAMITE,  
NOBEL'S EXPLOSIVE GELATINE,  
NOBEL'S GELATINE-DYNAMITE,  
Best and Strongest Explosives in the World.**As other makers IMITATE our Giant Powder, so do they Judson, by Manufacturing  
a second-grade, inferior to Judson.**BANDMANN, NIELSEN & CO, General Agents, San Francisco.****JUDSON POWDER,**The Only Reliable and Efficient Powder  
For Stump and Bank Blasting. From 5 to 20  
pounds blows any Stump, Tree or Root clear  
out of ground at less cost than grubbing.  
Railroaders and Farmers use no other.**E. C. CLOWES,  
STOCKTON NURSERIES.**

500,000 ROOTED MUSCAT VINES

Can be Delivered from Fresno or Stockton.

Special Prices on Lots of 50,000 or more.

**White Adriatic and San Pedro Figs  
UMBRELLAS.**

A Full Line of Fruit and Ornamental Trees, Shrubs, Vines, Palms, Roses &amp; Small Fruits.

ESTABLISHED 1868. WRITE FOR CATALOGUE AND PRICE LIST.

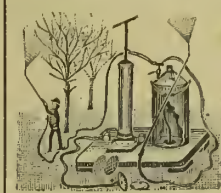
**Stockton. - - - - - California.****W. H. WOOD & CO.,** COMMISSION MERCHANTS,  
AND WHOLESALE DEALERS IN  
CALIFORNIA FRUITS AND PRODUCE.**ALFALFA SEED** 117 TO 125 J STREET,  
A SPECIALTY. SACRAMENTO, CAL.**CLARK'S IMPROVED SEEDING  
CUTAWAY HARROW**POSITIVE IN ITS ACTION AND  
PERFECT IN ITS SEEDING.Will sow all kinds of GRASS SEED & GRAINS  
SEND FOR SPECIAL CIRCULAR.**HIGGANUM MANUFACTURING CORPORATION** SOLE MANUFACTURERS HIGGANUM, CONN.  
New York Office, 183 Water St. NEW YORK.**WATER PIPE FOR SALE CHEAP.**LAP-WELDED WROUGHT IRON TUBING, COUPLED WITH LEAD-LINED  
COUPLINGS, ASPHALTUM DIPPED, READY TO LAY.

We have on hand and can deliver with dispatch the following quantities of this form, viz:

10,000 FT. 3 1/4" DIA. INS.	100,000 FT. 2" DIA. INS.	25,000 FT. 3" DIA. INS.
20,000 " 1 1/4" " "	100,000 " 2 1/4" " "	25,000 " 3 1/2" " "
100,000 " 1 3/4" " "	25,000 " 2 3/4" " "	20,000 " 3 3/4" " "

**JOSHUA HENDY MACHINE WORKS,**

Nos. 39 TO 51 FREMONT STREET, SAN FRANCISCO, CAL.

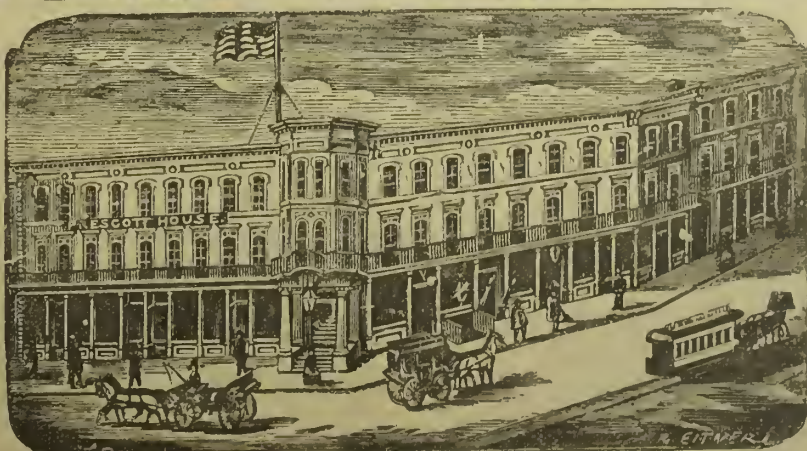
**Whitewashing Machines & Tree Cleansers.**

Complete Outfits at prices from \$3 to \$50.

The Pumps are all BRASS, with BRASS AND RUBBER VALVES.

For Orchardists, Florists, Stockmen, Poultry Raisers  
THERE IS NOTHING LIKE THEM.

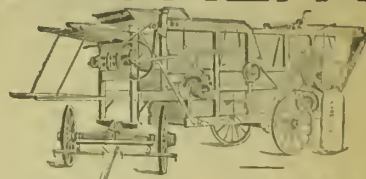
Pump sent complete as in cut for \$14. Send for Illustrated Catalogue.

**WAINWRIGHT SPRAYING APPARATUS CO., 1409 Jackson St., S. F.**  
Contracts taken for Large Jobs of Whitewashing.**PRESCOTT HOUSE.**

S. W. Corner Kearny and Montgomery Avenue, San Francisco.

Free Coach to and from the House.

J. W. BECKER, Proprietor.

**DEWEY & CO. { 220 MARKET ST., S. F. } PATENT AGENTS.**  
Elevator, 12 Front.**THE BIRDSSELL  
ALFALFA****HULLER**Thrashes, Hulls and Cleans ALFALFA  
Seed, and delivers it in the sack  
ready for market.It gets ALL THE SEED OUT  
of the Straw, and SAVES IT.  
and is the only Machine on earth that does.  
Send for full description and price to**BIRDSSELL MFG. CO.**  
SOUTH BEND, IND.**C. H. EVANS & CO.**

(Successors to THOMSON &amp; EVANS),

110 and 112 Beale Street, S. F.

**MACHINE WORKS,**Steam Pumps, Steam Engines  
and all kinds of MACHINERY.**PUMPS**  
DEEP WELL

ASK YOUR GROCER FOR IT.

**PRICE'S HAY PRESSES  
FOR SALE.**

Genuine Price Petaluma Press.

Junior Monarch Hay Press.

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— ADDRESS —

**L. C. MOREHOUSE, San Leandro.****RUPTURE AND PILES.**We POSITIVELY CURE all kinds of Rupture  
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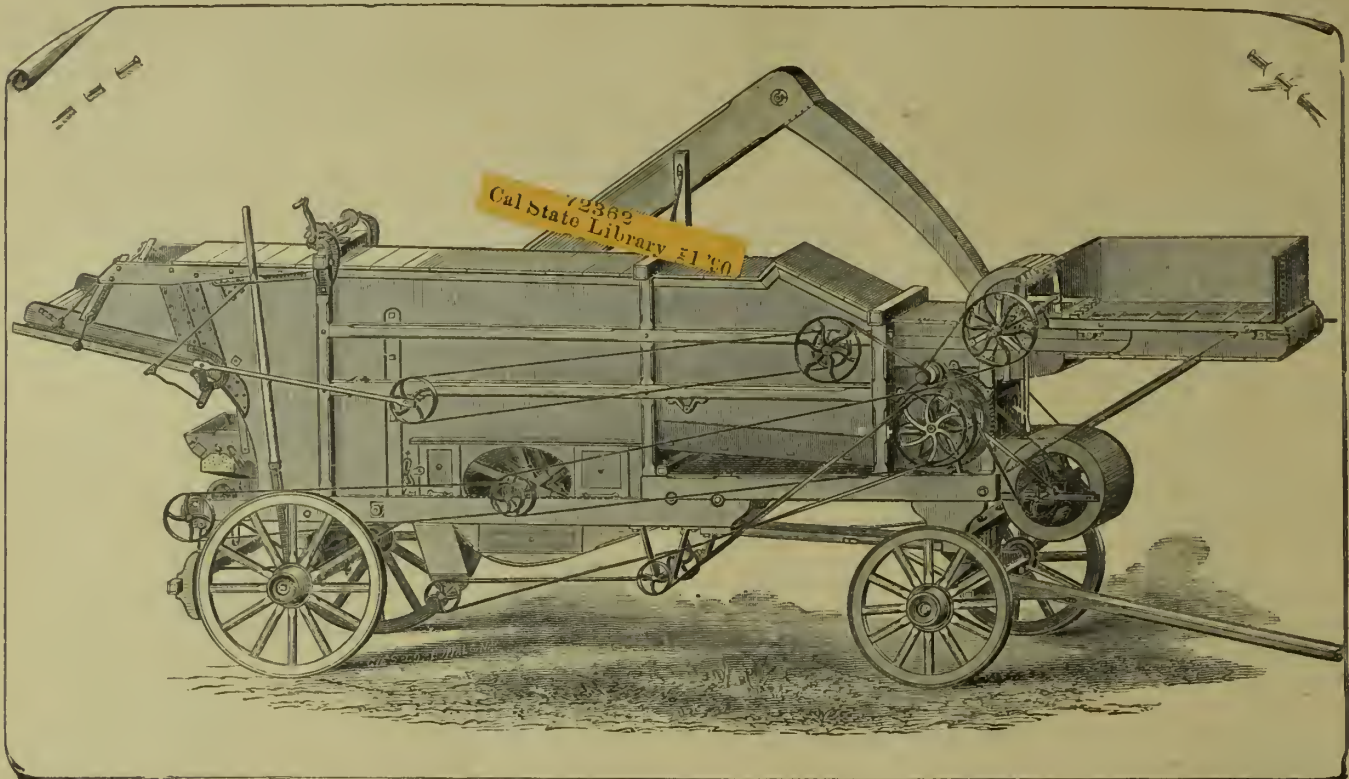
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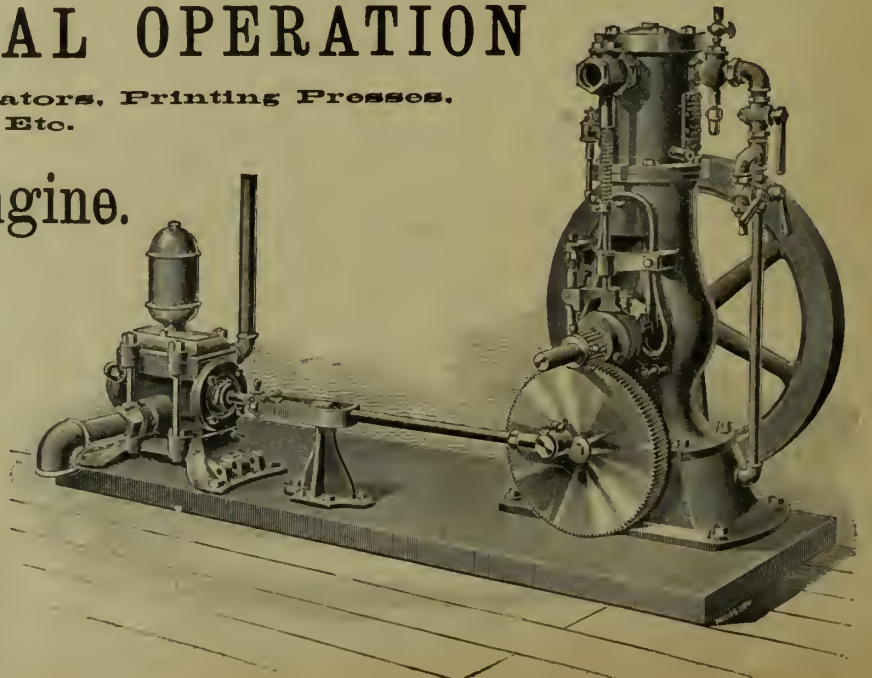
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# PACIFIC RURAL PRESS

Vol. XLI.—No. 26.

SAN FRANCISCO, SATURDAY, JUNE 27, 1891.

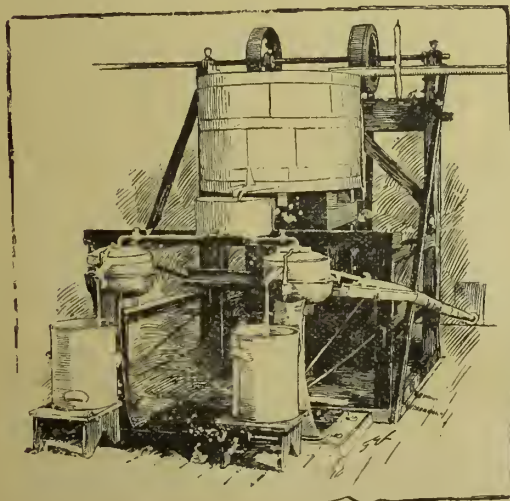
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WATERWHEEL USED FOR CHURNING IN SHASTA COUNTY.



A MILKING CHUTE IN A KERN COUNTY DAIRY



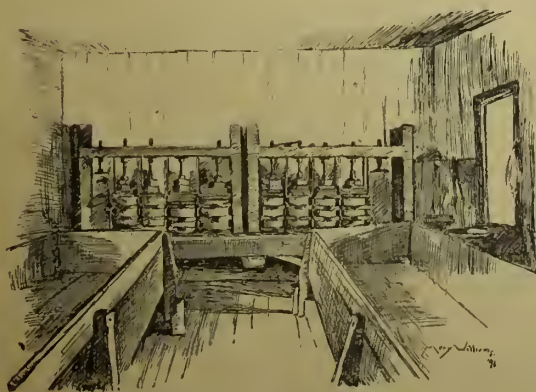
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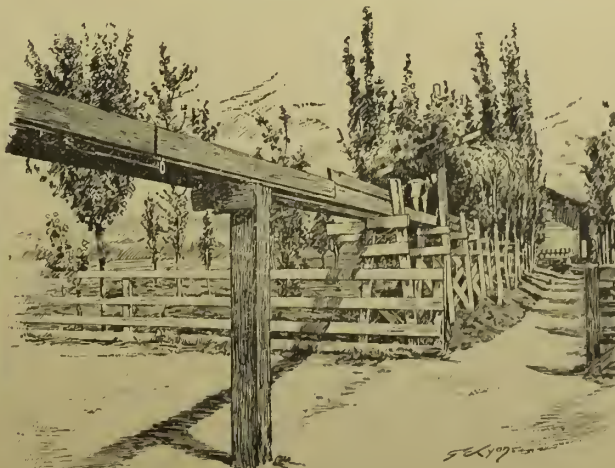
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THE MILKERS' SUMMER BED-CHAMBER.

CALIFORNIA DAIRY SCENES—IMPROVED MACHINERY AND ORIGINAL DEVICES. — See page 616.



## THE APIARY.

### Fixed versus Hanging Frames.

EDITORS PRESS:—When I first commenced bee-keeping, I bought several of the best works on bee-culture obtainable; I also subscribed for the two leading bee-papers published. I studied them all well. The bee papers and books advised the use of swinging or hanging frames, claiming that they were far superior to any fixed or closed-end frame. The result was that all my hives were of the swinging frame style. The swinging frame gave good satisfaction as long as the hive remained stationary; but when I moved them, then trouble commenced. In a location like mine, I have to move bees considerable, and I have always dreaded the job; it takes a great deal of time and work to go over each hive and fasten the frames in securely; and even after that, when the bees are placed on a wagon very careful driving must be resorted to, or the frames will become loosened, the combs get jammed together, and the honey commences to flow; which generally means the destruction of the colony.

In this part of the world, we have very rocky and rough roads, and all frame hives must be fixed up extra well in order to stand the journey.

With box hives, it is quite easy to move bees; the hives can be inverted, and a piece of wire cloth tacked across the bottom, which generally insures sufficient ventilation; the hive being inverted, there is no strain upon the combs, and of course there is no danger of their breaking down.

Hanging frames are all right in a location where bees do not have to be moved, and where a bee-keeper only intends to keep a certain number of swarms; but if a person starts in the bee business with the intention of starting out apiaries and otherwise going in pretty extensively, I am sure that the fixed frame is the best. With fixed frames, it is a comparatively easy matter to arrange 100 colonies for moving; while with swinging frames, each frame has to be fastened in separately, and as a natural consequence, considerable time is consumed fixing one hive, and the less time that is consumed on one hive the more hives you can fix.

Fixed or closed-end frames can be handled collectively, which is a great point in their favor and which is of considerable moment in a large apiary; besides, when replacing the frames no time is required to give the proper spacing as with hanging frames.

Fixed frames are also a great disuader of brace and burr combs, which in most swinging frame hives is a great nuisance.

I have long looked for a hive that I thought I could make a success of, in moving bees over our rough mountain roads; and I am firmly convinced that the fixed frame hive will come nearer accomplishing it than any other style of hive.

Great credit is due Mr. E. R. Root of Medina, Ohio, the associate editor of *Gleanings in Bee Culture*, for reviving this subject of fixed versus hanging frames. I think he is certainly on the right track.

To satisfy himself on the superiority of fixed frames, he personally visited some of the most extensive bee-keepers of New York State, and he found that the bee-keepers with their fixed distances and closed-end frames, managed to handle larger apiaries with less labor than those using the swinging frame.

These apiarists of New York State, that prefer fixed frames, are the most extensive bee-keepers in the world outside of California.

P. H. Elwood manages 1000 colonies with only two assistants in the height of the honey season, and Mr. Hoffman manages 600 colonies almost alone, except for a few days in the swarming season.

I do not think there is any bee-keeper in California using the Langstroth hanging frame, that can handle 1000 colonies with so little assistance.

I have had a great deal of experience in moving bees in swinging frame hives, and I have always had more or less trouble, and if I had only commenced using fixed frames, nine-tenths of the trouble would have been avoided.

Let me present to your view a few facts concerning fixed frames—a few facts from the pen of Mr. P. H. Elwood, who gives them in "Gleanings in Bee Culture." He says: "Our hive is portable. No cumbersome rack is needed in moving bees, for two hives sit side by side in the bottom of the wagon, and one hive files on top of another without need of sticks between. In preparing a colony for moving, we shove out the entrance slide in the bottom of the hive and put in its place a wire cloth slide to give the necessary ventilation. Then two screens are put in—one through each side of the bottom-board into the edge of the hive—an average man will consume about 100 minutes from the time he reaches a yard until he drives out with a load of 33 swarms. The two screens mentioned fasten the bottom on so securely that we have had no accidents on the road serious enough to warrant unhitching the team from the wagon. Our bees are usually drawn over rough, stony roads, but we have no queens or bees killed from frames dropping together, nor do we have any combs broken.

Not only is our hive movable, but our frames

are also movable. In walking up to a hive, one motion lifts the hives proper from its bottom-board and places it at the side of the exposed frames, where it forms a seat of convenient height. The iron roof is nailed to the hive, and of course always goes with it. Only in the hottest weather is there a shade-board to be removed. Another motion with one hand removes the quilts covering the frames, and the other hand blows a puff or two of smoke from Jumbo, while the first removes the cord holding the frames more tightly together. You are then ready for business. If you are looking for the quantity of brood in the hive, you can remove the frames in pairs, for they are easily and rapidly handled in this way, and one side of a comb is usually a duplicate of the other side. The bottom-board is large enough so that the frames removed can be hooked on the bottom near you, and far enough away from the others to have ample room to get a good look at the next comb. This is a valuable feature of the hive, as you can have always a good place for combs without setting them upon the ground, where you are in danger of losing queens and damaging brood, besides other annoyances.

It is generally admitted by those who have seen the workings of a Hetherington Ormby hive that queens can be found more readily than in spaced frame hives. S. L. WATKINS.

Grizzly Flats Cal.

## THE IRRIGATOR.

### Support of the Wright Law.

At the monthly meeting of the State Board of Trade, held June 12, an important report was submitted by a special committee, consisting of J. W. Davis, J. P. Irish, C. C. Hutchinson, Tyler Beach, N. P. Chipman, John Boggs and W. H. Mills, appointed in April last to investigate the value and validity of irrigation bonds issued under the Wright law. The report in full was as follows:

To the State Board of Trade: The special committee appointed to consider the value and validity of bonds issued by irrigation districts organized under the Wright law, beg leave to report as follows: This committee conceived its first duty to be action in conjunction with the State Irrigation Association to secure the conclusive judgment of commercial and financial organizations in San Francisco upon the character of irrigation bonds as commercial paper.

Meetings with the Chamber of Commerce were secured, and the question was referred to a committee of that body. The discussion in the Chamber and before the committee disclosed a general feeling of confidence in the bonds as ample and valid security. The discussion was addressed first to the legal questions involved, and these were regarded as settled in the several decisions of the Supreme Court of the State, which cover all points that arise under the Wright law, and affirm its constitutionality upon each.

The second branch of the inquiry went to the capacity of the lands irrigated to sustain, without discouragement or decay of the industry that makes them fruitful, the debt represented by the bonds. In support of the affirmative of this proposition your committee and others who considered it had for assistance the familiar and well-known examples and experiences of the irrigated districts of the State. The development of these began in advance of the Wright law. They are found from extreme Southern California to the northern limits of the Sacramento valley. Their history is one of high farming, of continual progress from the nobler to the noblest utilities of the soil, of the certainties of agricultural and horticultural industry, and of satisfying profits to the tiller of the soil.

Your committee states merely as a well-known fact that the desire to extend to other land-holders and other lands these demonstrated benefits and permanent profits of irrigation was the motive of the Wright law. The pioneer irrigators had secured the union of water rights and land titles. The Wright law simply put within the reach of any community the power to do the same thing.

Your committee has no doubt of the ability of the land-holders of these bonds to carry them to final liquidation without harm or oppression to the land-holders. Nor do we doubt that in every district the lands will, upon completion of irrigation, show an aggregate advance in value far in excess of the volume of bonds required to construct the works. We are sure that these views are concurred in by all the organized bodies which were co-ordinated in this inquiry.

The results and conclusions reached were referred to the financiers of the Clearing-house Committee of San Francisco. The members of that body as individuals expressed their concurrence with the view that the bonds are legal and amply secured, but were compelled to withhold such expression as a corporate body, because as such they were not endowed with the required power.

In conclusion, your committee reports its satisfaction with the result of this great inquiry, which was begun and stimulated by the State Board of Trade, and we further request that your adoption of this report be taken as

the indorsement by the State Board of Trade of the legality of the irrigation bonds and the amplexes of their security as commercial paper.

The report was at once adopted and W. H. Mills urged its publication in the financial centres of the world, suggesting that steps should be taken to have it printed in New York city.

## FRUIT PRESERVATION.

### Another Fruit Drier.

EDITORS PRESS:—Referring to the Oregon discussion on fruit driers which appeared in your issue of the 6th inst, I trust that a few additional words on the subject will not be unwelcome to those who are interested in fruit drying and fruit driers. I have carefully read the articles presented to the Marion County Fruit Growers' Association on the subject referred to, and I observe that each of the writers claims that the drier of which he is owner or inventor is the *ne plus ultra* of perfection while all the others are inferior or worthless. Now I am disposed to accept all of the dispraise which each has bestowed upon the others, for it is in confirmation of my own opinion and experience. Nine-tenths of these so called evaporators are not worth the space they occupy and are utterly worthless so far as their employment in the profitable evaporation of fruit is concerned. It must be a matter known to everyone who has at all studied the question, that the absolute essentials for the rapid and uniform evaporation of fruit are:

First—The application of the greatest degree of heat possible without scorching or baking.

Second—A free, rapid and unobstructed current of dry air passing constantly and uniformly over the surface of the fruit.

Heat alone will not evaporate; heat simply extracts the moisture, while the rapid current of hot dry air passing over the surface of the fruit sucks up the moisture like a sponge in its flight upward and outward. If a drier is not provided with this rapid and continuous air current, it is simply an oven in which fruit will bake at 225 degrees, but with it, 300 degrees will not even overheat it. To obtain this current of hot dry air, blowers, suction-fans and other appliances have been resorted to in order to force the air up and through the fruit, but without any appreciable results; for in spite of every effort, the fruit drips and sweats, and the heated air, in its endeavor to escape, will rush to the places offering the least resistance, overdrying the fruit at such places, and leaving the balance comparatively green.

Has any individual ever combined, in a drier, the two essentials above named? Yes, and the feat has been most successfully accomplished in the following manner: The drier is constructed upon a circular plan. Two circular brickwalls are built, one within the other, to the height of eight feet. From this point, the outer wall is carried up, to any required height, of framework, and lined with well-seasoned, narrow-tongued and grooved lumber, and finished with a conical roof, in the center of which is placed the escape flue. The space between the inner and outer walls is equal to the depth of the trays. In the circular inclosure thus formed are placed the furnace and heating drums. From the back of the furnace, the drums *T* off to the right and left, forming a circular coil, and coming out at front, where it unites with the smoke-stack. On top of the inner brickwall, a turntable attachment is built, with arms extending over the heating chamber to within an inch of the outer wall. The inner wall is carried up to the desired height, resting and revolving upon the turntable. Upon that portion of the arms of the turntable which extends over the heating chamber, a framework is built to reverse the trays. The trays incline six inches in three feet, and wind up and around the inner wall, edge to edge, resembling a winding-stair, or the spiral twist of an auger. The trays form a series of these spiral twists, and are so arranged as to leave a space between each twist of four inches, equalling an unobstructed flue, or series of flues of four inches by the width of the trays.

The machine is put in motion by means of a small engine, and revolves at any rate of speed required, forcing a current of hot, dry air through the flues and under and over the entire fruit surface, carrying off every drop of moisture as fast as extracted, and drying the fruit with astonishing rapidity and uniformity. It will be seen that the instantaneous removal of the moisture as fast as the heat brings it out renders sweating and dripping impossible, and thereby prevents the fruit from sticking to the trays, and also leaves the fruit clear, bright and of excellent flavor. It will also be seen that the rapid rotary motion of the trays, through this confined, heated air-chamber, gives to every portion of the fruit surface the same degree of heat and same force of current. This machine was invented by a gentleman at present living in Watsonville, Cal., and its remarkable success is the result of the intelligent arrangement of its working conditions.

909 Dolores St., S. F. JOHN A. MADDEN.

### A New Cannery in Oakland.

The Oakland Tribune gives the following description of an establishment recently opened in that city:

When the well-known J. Lusk Canning Co., whose cannery was at Temescal, failed several years ago, one of the most important industries, that of fruit canning, was sorely crippled in this county. Nobody doubted for an instant that a fruit cannery in Oakland would pay from the very start, but Oakland capital was a little wary of such an investment, and it has remained for a party of San Francisco capitalists to give this city a cannery which will not only employ several hundred men, women and children, but one which has even a larger capacity than the old Lusk cannery.

The Oakland Preserving Co. is the name of the new corporation, and to show what an energetic concern it is, it is only necessary to state that the company was organized, buildings were erected and the work of fruit canning commenced all within eight weeks, and the cannery is said to be the most complete one in the United States, too. The buildings of the company occupy half a block of land, and are located on First street, between Filbert and Linden streets. The cannery proper occupies the Linden-street side, and the immense warehouse where the canned goods will be stored occupies the Filbert-street end of the lot, with the engine and boiler rooms situated in the rear on Linden street. On First street a sidetrack has been run the entire length of the block, and fresh fruit may be unloaded at one end and the car laden with canned fruit at the other end. Yesterday a Tribune reporter was escorted through the new cannery and shown the workings of the new institution by Supt. Stevens. Possibly a better idea of fruit canning could be learned by following the fruit through the different stages of preparation than any other way, with an incidental description of the different departments through which it passes.

When the green fruit is received, it goes into the green-fruit room at the corner of Linden street. This room is 60x130 feet in size, and 100 persons may be employed in this department if occasion demands. Here the green fruit is graded, cleaned and assorted for the packing-room adjoining. This is the main department of the institution. The room is 80x100 feet in size, and is divided into two sections. On one side there are accommodations for 435 girls and women, who sit at long tables divided into individual sections. On this side, the fruit is prepared for the cans according to its kind, and as each girl fills a box she drops a little tin number into it corresponding with the number of her table, which serves the dual purpose of keeping a record of her work and as a means of identification if the box of fruit is not prepared well. The boxes are gathered up by boys and carried across the room to other tables, where it is canned. Arrangements have been made on this side for 140 operatives.

The green fruit is carefully packed in the cans by the girls, who stamp their individual number on each can as a future means of identification in case the work is not well performed. From here the cans are carried to the syrup-tape in the same room, which consists of a number of machines so arranged that a tray of 12 cans can be filled at one operation. Each machine supplies a different kind of syrup from tanks in the upper story, or all may be used with water where syrup is not used. And from here the fruit goes to the sealing and boiling room.

A feature of the room just described is its complete drainage. The tables used by the girls are grated and contain drains leading to spouts, which in turn connect with a main gutter under the floor, and thus all water spilled during the process of canning is carried away. Connected with the syrup machines are two drains, one which conducts the water used in washing the cans to the pipes under the floor, and the other which conducts the waste syrup that may be spilled into a tank, from which it is pumped back into the filters and reservoirs for use again.

In an adjoining room, the lids are soldered to the cans as they rotate, a dozen at a time, in a machine which heats them. After the lid is sealed down, a hole is punctured in the center, which allows the hot air to escape, and then a drop of solder over the hole finishes the job. The purpose of this latter operation is to force all the air from the can, and prevents the canned goods from spoiling.

The cans are next set in a tray, which is picked up by a derrick and dropped into the boiling vats, where the fruit is cooked, a clock dial being set on each tank to show when the cans are to be lifted out. Some fruits require but a few moments' immersion in the tanks and others several hours. A feature of this department is an invention of Mr. Stephens. It is a mechanical crane which will swing in any direction and perform its work, while the engine is stationary on the floor. Other cranes do not have the advantage this one does, as it has been necessary heretofore to put the lifting mechanism either on the arm of the crane or on a turntable which turns with the derrick. The floor of this room is open, so that all the water spilled will run into the drains below.

The upper story of the building is used to store empty cans in, and a gallery leading from it contains the syrup tanks for the machine on



the lower floor. A powerful hydraulic elevator runs from one floor to the other.

Across the alley is the warehouse, made of corrugated iron, fronting 60 feet on First street by 234 feet on Filbert street. Here the cans are labeled, packed and stored after they come from the hoiling vats. In one end are the general business offices and the private offices of the president and manager.

In the yard to the rear of the building are the engine-house and the hoiler-rooms and the air pump for the oil furnace. The oil furnaces are used to heat the soldering irons in the hoiling room, the oil being fed into the furnace on the principle of the atomizer. A 25 horse power Corliss engine runs the machinery in the buildings, all the shafting and belting being placed under the floors.

The capacity of the new cannery is about 65,000 cans a day, and when running full from 750 to 800 employees will be hired; the number of persons employed of course being regulated by the quantity of fruit on hand.

The accounts with the employees are kept by the check system, thus doing away with much unnecessary book-keeping. The check slips are similar to those used by street car conductors. Those of the piece workers are punched according to the number of boxes they fill, and those of the day laborers are punched when they commence work and when they quit each day. Saturday night the girl takes her slip to the office and is paid according to the punch holes in it.

The cannery is the most complete of its kind on the coast and will turn out all kinds of canned fruits, preserves and jellies.

F. H. Green is superintendent of the work-ing department.

The manager of the institution is W. A. Stevens, who is interested in the salmon canneries of Alaska. Mr. Stevens has been engaged in the canning business for 20 years, and has mastered it in every detail. The Dawson Packing Co., and San Jose Fruit Cannery were both established by Mr. Stevens.

All of the Oakland Preserving Co.'s business will be transacted in this city, and here will be located the general offices. The directors of the Oakland Preserving Co. are all San Franciscans. They are: Frederick A. Tillman (president), John H. Mangels (treasurer), Ernest A. Denicke, Frederick Tillman Jr., L. A. Marshall and Charles N. Pike.

At present the company employs about 300 people.

## FRUIT MARKETING.

### Will There Be Over-Production of Raisins?

As stated in last week's RURAL the State Board of Trade will discuss the production of raisins.

General Chipman of Red Bluff submitted the following compiled report relative to the discussion:

As we must look to diversified agriculture to lift us up to our true level, and as fruit-growing is the most promising branch now engaging attention, it is pertinent to answer the doubts expressed upon the question of over-production.

George West, by his conspicuous relation to grape culture in this State, has by his pessimistic view of the raisin grape sent a thrill of dismay over the State. He suggests that we have now probably reached the maximum of profitable planting. This is important and serious, if true, for by the same reasoning we would cease almost all other plantings, especially the orange. The subject is worthy our attention.

Mr. West says that in 1895 we shall have 7,600,000 boxes of raisins, which he estimates as 3,600,000 boxes in excess of the then demand. I am indebted to Gustav Eisen for some of my statistics, which I have taken from his excellent work on raisin-growing.

The raisin crop of the world for 1889 was 312,000 tons. Of this California produced the comparatively insignificant amount of 10,000 tons. Greece and Smyrna alone produced 245,000 tons and Valencia and Malaga over 28,000 tons.

The raisin districts of the world are not large and are limited by climatic and other conditions. The present advancement of the industry dates from comparatively recent years. The generous consumption of the raisin of today fairly represents the growing disposition to eat more fruit and less meat.

Our importations of the raisin (and so of most fruits) have increased in striking proportion to increase of population. In 1873 we imported of Valentias and Malagas 17,776 tons. In 1882 we reached our highest importation, 31,268 tons. In 1873 California added 60 tons to consumption; in 1882 she added 1152 tons. In 1873 the United States consumed 17,836 tons and in 1882 we consumed 32,420 tons.

Our population increased about 25 per cent, and our consumption of raisins 100 per cent. In 1860 we consumed a little over 1,000,000 pounds. In 1890 we consumed over 66,000,000 pounds. In 1860 we consumed less than one-thirtieth of a pound per capita. In 1890 we consumed one and one-third pounds per capita, or 40 times as much per capita in 1890 as in 1860. In 1884 it was found that we consumed of raisins and currants 1.70 pounds per capita,

while Great Britain consumed 4.38 pounds per capita.

Is there any reason why we may not consume as many raisins per capita as the people of Great Britain? If we should (and everything indicates rapid increase of consumption) we will require four times our present output to supply this need; and we must double our present output to displace importations and reach present needs.

But we must add to this the requirements of about 1,500,000 annual increase of population. It will require 100,000 boxes to be added to our output each year to keep pace with this increase of population. It is my belief, expressed with all respect for Mr. West's opinion, that California is not likely to overtake the demand in the United States alone. When planters are content to make from \$50 to \$100 profit on an acre, we will see consumption leaping to 10 pounds per capita, and that means 31,000,000 boxes instead of 3,300,000 as now. But what of the 312,000 tons produced on the globe, only a small part of which will hereafter come to the United States? Where is your American enterprise that shrinks from attacking this foreign demand? The United States produces nearly 50 per cent of the world's deficiency of wheat. We push our wheat into foreign markets against great odds—may we not our raisins?

The plantings of all ages of raisin vines in the State to-day, based upon Mr. Eisen's figures, are:

Fresno district, acres.....	30,000
Balance of San Joaquin valley.....	10,000
San Bernardino district.....	5,000
San Diego and El Cajon.....	6,000
Yolo and Solano.....	8,000
Balance of the State.....	7,000

Total.....66,000

I think this estimate is not much in excess of the actual plantings. Mr. West states that in the San Joaquin valley alone there are 56,430 acres. Mr. West estimates three tons of green grapes or one ton of raisins per acre, equal to 100 boxes per acre, as a fair average yield; and, I think, he understates the yield rather than overstates it. But on his figures you will see that a consumption of two pounds per capita will dispose of these. By the time these vines are all in bearing we shall have six million more mouths to feed.

Wherever raisins have been introduced the consumption has rapidly increased. Our fruit is superior and must make its way in foreign markets. I see no cause for alarm. Nearly all the raisins now grown are consumed in Great Britain and her colonies, and in France and the United States. A vast area of the civilized parts of the globe have not yet been exploited for foreign markets.

I have examined the question of alleged raisin over-production at some length, because of the doubt created by Mr. West. The rapidity with which raisin vines may be brought to maturity, and the exact data we have as to product and consumption, give more color to the claim of over-production than in other fruits. But we have heard this plaint for ten years as to all fruits, but we haven't yet penetrated the outer edge of our vast markets for fruit.

In 1879 we imported three and one third million pounds of figs. In 1888 we imported nearly ten million pounds and this ratio of increased consumption to increase of population embraces all fruits. In 1860 we imported and used in the United States about 3,000,000 boxes of oranges. Our home product was nothing worth mentioning. This was a consumption of about one box to 100 inhabitants.

In 1889-90 we imported about 3,500,000 boxes; Florida produced 2,200,000 boxes; California produced 850,000 boxes, making a total of 6,550,000 boxes, which is a consumption of one box to about every nine inhabitants, and this is only about one orange a month per capita or 12 oranges during the year. Let us not worry over the question of markets.

It was decided after some further discussion, to invite Mr. West, Dr. Perrin, Gustav Eisen and all persons interested in the raisin industry to meet for a discussion of the subject at the September meeting of the Board of Trade. This will be held September 8th at the State Board of Horticulture room, Sutter street.

WHERE THE IRON GROWS.—In the city of New York there are about 500 miles of paved streets, and it is estimated that there is in constant wear upon these streets about one billion tons of iron, in the shape of wheel tires, street car rails, horseshoes, etc.; not more than one-half of which ever gets back to the puddling furnace or rolling mill. Tons of iron are worn off from horseshoes every day, perhaps 20 times the amount is lost from tires of ordinary vehicles. The surface roads give off tons from the rails and car wheels; the elevated roads also lose tons from their rails and car wheels. The pedestrians grind off tons of nails in the heels of their shoes, and not an ounce of all this is saved. It becomes dust and is blown everywhere, but the great majority finds its way to the bed of the ocean with street dirt and garbage, and until some great revolution shall make a radical change in ethereal matters the millions of tons of iron which are thus deposited in the wild waste of waters will not again enter into the useful arts of which they were once such an important factor.

It is poor management to use one machine for half a dozen different things.

## THE VINEYARD.

### Mr. Wetmore's Plan for Disposing of Wine Grapes.

At the last meeting of the State Viticultural Commissioners, Charles A. Wetmore made a report regarding the extension of the market for grapes. He states that it is of importance to the wine-growers of California that the Sweet-wine law should be construed so as to permit Eastern wine-makers to make wines out of grapes only, and where it is impossible to obtain sufficient saccharine strength in one place it is presumed that they will be permitted to obtain it in another, provided that the material used comes solely from the grape, and is used in connection with legitimate fermentation of the grapes produced in the vicinity of the wine-maker. He desires that Eastern wine-makers be permitted to use condensed or boiled grape juice from California whenever their necessities require it. If such a ruling is made by the department in Washington the Eastern wine-maker will be enabled to use not only our condensed musts, but also our pure brandies, in making sweet wines out of Eastern grapes, and our interests as well as the interests of all growers, whether East or West, will be subserved by preventing the necessity of resorting to adulteration or imitation. The intention of the law was simply to prevent the use of free spirits in the manufacture of hogs, imitation or adulterated wines.

Mr. Wetmore proposes to increase the market value of wine grapes in California as follows: By drying; by establishing brandy distilleries, established on the co-operative principle in vineyard districts. His plan is as follows:

Let some one man or committee of men having business qualifications, in each district, go immediately to those vine-growers who have grapes to sell and procure from them contracts promising to deliver a certain number of grapes to a trustee, who shall be authorized to proceed for them to organize a company, the cost of which shall be paid for by the brandy which shall be distilled from the grapes contributed. Let us suppose that contracts amounting to 2,000 tons of grapes or more have been procured in one locality; let there be a nominal price fixed for these grapes with a certain standard of sweetness, say \$10 per ton for grapes with 22 per cent or more of sugar, price to be reduced proportionately as the sugar shall fall under 22 per cent, but no variation in price for sugar contained above the standard. If variation in price should be fixed for grapes above the standard it would probably defeat the purpose of the organization by causing growers to refuse to pick early when required.

Practical men will be free to say that grapes distilled and sold within six months after vintage, will return an income of more than \$10 per ton, so that this figure for nominal prices is within reason.

As soon as the grapes have been by these trustees fermented, distilled and sold, the distillery buildings, cooperage and other appurtenances which have been created in order to work this plan, may be then out of debt and transferred to the proposed company and stock issued to those who furnished grapes in proportion to the nominal value, as agreed. In this way, an effective plan for distilling can be created and paid for within six months from the time of vintage, and there would probably be also a profit out of which a dividend might be declared, or which might be better used in adding further facilities and cooperage, so that during the next year, if deemed advisable, a portion of the crops offered by the stockholders might be kept as wine without distilling.

Now, as to the practical method of perfecting this plan in different localities, the trouble with the vine-growers is that not many of them can pay assessments in cash, but nearly all of them could furnish from one half to the entire amount of their crops in lieu of cash; some might not be able to furnish more than half, reserving the other half for sale elsewhere to cover their current expenses. The trustee, or trustees, who undertake to carry out such a plan after they have procured valid contracts for the grapes with authority to dispose of them, as has been suggested, would find little difficulty in procuring capital or credit to create the necessary plant, with the assurance that they could give that the product in a bandy would be realized upon within six months; in fact, I know now that contracts with responsible parties could be procured for the sale of this brandy before the vintage, so that those who would be lending credit to these associations would take no risks.

Now as to the probable cost of such an operation: Roughly estimated, \$15,000 would be ample to secure land, construct cheap buildings for fermentation only, tanks for fermentation, together with an adjacent distillery of the most improved and effective pattern, capable of managing 2000 tons of grapes in one season. Three 2000 tons of grapes would realize, when sold as brandy, within six months not less than \$20,000, so there would be a surplus for management and expenses of operation. It is more than probable that there would be an income of at least \$5000 more, which could be used to increase the facilities of this winery and distillery for future use. Having obtained stock in this company after the goods have been sold by the trustees, each stockholder would have an interest free of debt which would be good col-

lateral in case he needs money in his vineyard operations.

By adopting this plan in many different districts simultaneously, and by pushing it forward vigorously in time for the next vintage, the difficulties now besetting our vine-growers would be practically overcome, and next year there would be active demand for grapes at good prices.

## FLORIST AND GARDENER.

### Two Remarkable Plants.

(Read at the June meeting of the State Floral Society by EMORY E. SMITH.)

All vegetation is more or less remarkable, but some plants, from their striking beauty of flower and leaf or peculiarities, particularly attract our attention. Among the most remarkable are the Compass plant and the Mosquito-catching plant.

The Compass plant (*Silphium laciniatum*), commonly known as the Roman plant, which is found as an ordinary weed in the Western and Southern States, is not particularly attractive for beauty of foliage or flowers, but has the remarkable peculiarity of pointing the edges of its leaves due north and south, the faces of the leaves having an eastern and western exposure. This is always true of the younger leaves, the older ones, however, fall around in different directions by their own weight, the magnetic influence not being of sufficient strength to hold them in position. Just why the leaves of this plant should turn due north and south has never yet been clearly understood, although many causes have been offered for it. There are two distinct varieties of the plant which show the same peculiarity. One form has the stems covered with glandular pubescence; the other is simply rough covered with bristles, white hair, and one variety blooms a month later in the fall than the other. Botanists are somewhat confused regarding their identity, and any member of the society who should accidentally run across the plant would do well to closely watch its singular polarity and note the localities in which it is found.

### Mosquito-Catching Plant.

The Mosquito-catching plant (*Vincetoxicum acuminatum*) is a native of Japan and belongs to the milk-weed family. It is also a near relative of the hoya and stephanotis. In addition to its mosquito catching qualities, it is a pretty, hardy, herbaceous perennial, well worth having as a garden plant. It grows about 18 to 24 inches high and forms a good bushy clump of somewhat slender shoots that have opposite leaves and axillary loose clusters of starry-white blossoms that are borne abundantly in May and June and scattering all the summer.

In the center of the flowers in the clefts of the corona is secreted a viscid juice which is peculiarly attractive to mosquitoes and some kinds of flies; but woe be to the unwary, for whoever dips his proboscis into the alluring liquid never draws it out again, for it is held fast and no amount of tugging and plunging and huzzing will free the insect from its cruel captor. Mosquitoes often live for two days or more in this trap, but once caught they never escape.

The flowers will soon wilt after being out and the plant is not valuable for this purpose; but anyone who has children would do well to secure specimens and grow them for their benefit if for no other reason. The way in which it snags up mosquitoes never fails to attract the attention of the little folks and leads them to further investigations in nature's wonderful storehouse of knowledge.

### Heliotrope, or Turnsole.

[By Mrs. B. TOWNSEND, Before California State Floral Society.]

A plant which follows the sun with its flowers and leaves; the heliotropes are indigenous mostly to tropical and sub-tropical regions, but a few species are natives of Europe, as *H. europaeum*, L., which is also a naturalized species in the southern parts of North America. *H. indicum* (of the section *Heliohythum*) is to be met with in Equinoctial Africa, America and Asia, but apparently not in Australia.

Of 23 Australian species that have been described, 16 are endemic. The common heliotrope of English hothouses, *H. peruvianum* (popularly known as "Cherry pie") on account of the delicious odor of its flowers is a great favorite with florists. It was introduced into Europe by the younger Jussieu, who sent seeds of it from Peru to the Royal Garden of Paris. About the year 1757, it was grown in England by Mr. P. Miller from seed obtained from St. Germain.

The plant has been known to occur with double flowers. The species commonly grown in Russia is *H. suaveolens*, which has white, highly fragrant flowers.

Heliotrope may be propagated either from seed or as commonly by means of cuttings of young growth taken two or three inches in length and planted in sand. The plants require in hot weather a plentiful supply of water, and in winter careful protection from frost which easily kills them. If favored with a light, rich soil and a warm conservatory in which they may be grown in a border or against a pillar, wall or trellis, they bloom all the year round. There are very numerous varieties of heliotrope now under cultivation.



## PATRONS OF HUSBANDRY.

## Our Grange Edition.

The Grange news of most general interest is given through all editions of our paper on this page. Several supplemental pages, devoted to Grange interests, are added in our Grange edition, which any subscriber can receive in lieu of the regular edition WITHOUT EXTRA COST, by addressing the publishers.

## The Master's Desk.

R. W. DAVIS, W. M. S. G. OF CALIFORNIA.

Past Master S. T. Conlter paid a fraternal visit to Sebastopol Grange at its last meeting. He also visited Bennet Valley Grange at the regular meeting Saturday evening, June 20th. His words of wit and wisdom fell in good soil and will surely bring forth a bountiful harvest in due season.

Deputies will please prepare to organize at least one Grange in their Jurisdiction before the first of October.

A big harvest of grain and fruit, ought to bring a big crowd to the State Grange.

A sprinkle of pepper and salt adds a tone to the appetite and a flavor to the food. So a sprinkle of friendly discussion—a bit of pepper and salt as it were—will add a tone and interest to your Grange meetings. We stir the food when cooking to keep it from burning and for the purpose of assimilating the condiments. So, we must stir the mind, if we hope to have it assimilate the food furnished it by the thoughts of others. A friendly difference of honest opinion will sharpen the wits of all. Attend your Grange and participate in all the business, not with a desire to create a disturbance, but with a fixed and steady purpose to awaken life and thought.

It is strange, but true, that golden thoughts may fall from a silver tongue, and especially is this true, if there is a mine of thought behind both.

Did you ever think, since you joined the Grange and were taught the lessons about the Hoe, that it is more than ever your duty to "hoe your own row?" The row may be a long one and full of weeds, but persevering labor will eventually clear the track.

Let the stars and stripes float from every Grange hall on the Fourth of July. It is Independence Day, and what class of people are more independent than the farmers, and especially the farmers of our own dear California.

The Alliance and the Grange at Sebastopol will jointly celebrate the Fourth of July. They promise a jolly time to those who attend.

Doesn't Southern California want a few subordinate Granges?

How many million dollars will California get or the crops of 1891?

Ridicule is a sharp instrument. Be careful how you use it! Like all edged tools, it has its use, and if improperly applied, it will cut to the core, and perhaps will poison the whole life of the one on whom it is used.

If you must speak, tell the truth. Better be silent than to tell an untruth.

If you are 14 years of age, and are eligible, better join the Grange. Three dollars is the fee for a man; \$1 pays the bill for a woman.

There is no reason why your Grange should not add largely to its membership this summer. An abundant harvest ought to help each Grange. Join the Grange and co-operate in selling and in buying. Try the trade-card plan. It will save you coin.

Before these lines will appear in print the Annual Commencement of the University of California will have been held, and the class of '91 will have gone forth with their diplomas to honor and benefit themselves, posterity and their *Alma Mater*, or to bring reproach on all above named.

The responsibility attending the departure from college, and the entrance into the busy scenes of life, is much greater than many young persons comprehend. No longer the watchful eye, trained mind and moral example of the loved professor are over the every act and thought of the student. For the first time in life the graduate is alone. Parents, school-mates, college chums and professors are elsewhere. And though the day of graduation has been anxiously awaited, it has come, alas! too soon.

A visit to the University of California during the past week brings up afresh these thoughts. The busy days of twenty years have been passed in review. The associates of 20 years ago have had the silver threads freely mingled with the gold. Professors who were then young in years and experience are now ripe with age and honored for experience, while some of them have been garnered to the Last Harvest. Is it any wonder that the tearful eye should be moved when revisiting these scenes and meeting a few of the many who used to be the counterpart of one's daily life? But the mind wanders from the original thought intended to be expressed in

these few words. It is: That the University is a State institution with many colleges, among them the College of Agriculture. An excellent faculty of men learned in the theories and practices of life have charge of these colleges. Tuition is free to both sexes. The class of '91 has gone. Its place is to be filled. Have you a son or a daughter to become a student, the first duty of a citizen? If so, remember that education is a fortune no thief can steal—an attendant no person can intimidate, a friend in prosperity or in adversity, and a safe companion on sea or land, in solitude or in the multitude. We must educate our boys and girls. There is no better place on the Pacific Coast than at the University of California, at Berkeley, Alameda county, California.

## Florin Grange.

(By Past Master Flint.)

The above Grange invited everybody and their relations to be with them on the 13th, when they would exhibit their largest and ripest strawberries, their best looking girls and most prudent mothers, knowing full well that the grey and bald heads would be there also.

I invited Bro. McKune to ride down with me and the distance seemed far too short as he entertained me with rare stories, bits, witticisms, sarcasm and sober solid advice. We started early and drove leisurely along and took in and commented on nearly everything in sight. We passed our splendid county hospital, and learning that there were a good many inmates and more or less contagious diseases we thought it prudent to follow the old adage, that an ounce of prevention is worth a pound of cure and fortify us against the worst. We procured the requisite antidote, at a wayside inn, without the certificate of a physician, and it worked like a charm. In such cases I would recommend an internal application, against the deadly fangs on the external.

We had hardly arrived on the ground when noble Hiram Johnson leaped forth into the arena and struck an attitude like the first wrangler of an Oxford man, and pointing to the stars and stripes on the Grange Hall, delivered himself of a peroration that did credit to the descendants of '76. I tried in vain to keep his youthful enthusiasm bottled up until we opened under the good of the Order, but it flowed on with an irresistible force like the falls of the Yosemite.

The Master, just recovering from a severe illness, requested the writer to preside over the deliberations of the day. Then arose a struggle between ambition and duty—duty to preside, ambition to deliver a telling speech, that has been threatening the destruction of my head for the last ten days.

Three sisters and one brother were instructed in the 3d and 4th degrees; after which a grand banquet was spread, which did honor to the sisters of Florin Grange. To see the grace and smiles of these fair sisters, as they waited upon the table, was a good tonic as well as appetizing exhibition. I think the tables had to be set two or three times to accommodate the large number present. Strawberries were in abundance, high colored and delicious. Florin has a very enviable reputation for her small fruits as well as her fragrant flowers. It is no wonder that the people of Florin have such a high color and modest blush on their cheeks.

## Alive to Their Duties.

The officers did their work promptly and well, and the two taking features of the occasion were the youngest and smallest sisters that I ever saw taken into the Grange and one of the oldest of Grangers presiding as Chaplain on this occasion. Bro. Davenport, Chaplain of Sacramento Grange, 90 years of age, was asked to serve as Chaplain, which he did without a book, giving his part most readily and effectively.

Bro. Davenport hitched up his horse and drove to Florin unattended, and seemed to enjoy the meetings as well as a good many that are much younger, and, in fact, it seems to be food, drink and raiment to him. May his last days be full of peace and quietude, and when he is called to lay down his implements of husbandry, may it be as quick as

"Dies the gale along the shore,  
Or sinks the summer sun to rest."

Quite a nice program was arranged, consisting of instrumental and vocal music, reading and recitations, that were interspersed by speeches and comments by the entire Grange. The speeches took more of an interesting and practical turn to-day than I have seen for a long time. Different methods of harvesting hay and grain were discussed; wages and cost of labor; location of hay market and erection of sheds.

Sister Hull introduced an earnest discussion on the evils of promiscuous immigration and apathy among politicians and statesmen.

It is just such entertainments and discussions that took place to-day that educates, makes happy, contented and thrifty. It drives care from the mind, wrinkles from the cheek, gives confidence and decision, elasticity and firmness to the step, and old age from a too familiar acquaintance.

Improvement, discovery and progression are stamped upon everything animate and inanimate, but I fear the farmer does not improve his golden opportunity. Farmers, contemplate your situation and take active measures to improve it.

D. F.

## In Favor of Postal Telegraphy.

When Postmaster General Wanamaker visited San Francisco with the Presidential party, the Secretary of California State Grange had the pleasure of an interview with that able friend and advocate of postal telegraphy. Mr. Wanamaker seems without doubt thoroughly in earnest in his recommendations and efforts to have the Government adopt the best system that Congress can be induced to endorse.

The main points of his recommendations to Congress were contained in an article published months ago in the RURAL PRESS, and sent in orolnar form for the consideration of each Subordinate Grange in California. So far as heard from, the recommendation of Bro. Webster for the P of H to petition and use its best efforts in favor of postal telegraphy was received with favor by all Granges.

We are so much impressed with Mr. Wanamaker's sincerity in this matter, that we feel we cannot too strongly urge Patrons of Husbandry, and all our people who believe in advancing the interests and protecting the rights of the masses, to make haste in using every effort to influence members of Congress, newspapers and all officials that can help in the matter, to stand hard by Mr. Wanamaker in his recommendations and efforts to have Congress pass an enabling act to speedily introduce a postal telegraph system in the United States. It is a fact unfortunate for the people of this country that the leading governments of Europe are so far in advance of ours in this great public convenience.

In our desire to forward this movement, we wrote to the Master and the Executive Committee of the National Grange, recommending that the Legislative Committee should take up this subject and push it speedily and earnestly, while we have an earnest friend of the cause in the most influential position that any officer can hold for the establishment of a U. S. postal telegraphy. We cannot expect to have as able and practical a business man in the same position long, who will take so bold and strong a position, sincerely, in favor of this branch of the people's interests.

We are satisfied that Mr. Wanamaker has sacrificed his own business interests to the tune of not less than \$50,000 to \$100,000 per annum to work for the Government, and we have the assurance from his own lips that he will not serve another term in the office he has actually devoted very hard labor to.

The following is in response to a letter sent to the Executive Committee of the National Grange. It was written by the chairman of the committee and Master of Pennsylvania State Grange, a man known to many as one of the most able and effective leaders in the National Grange:

A. T. Dewey, Worthy Sec. Cal. State Grange:—Your copy of letter to the Master of the National Grange has been received in reference to "postal telegraphy." I will cheerfully do all I can to promote the project, and will advocate it before the Legislative Committee. Any papers or information you can send me on the subject will be much appreciated.

Our people are also interested in better postal facilities in the rural districts; that is, a better distribution. They are really more interested in better delivery than cheaper postage. Fraternally,

LEONARD RHONE.

On a recent visit to Washington State Grange, we had the pleasure of stating some facts before the Grange on the subject of postal telegraphy, a portion of which, at least, we will publish later in continuation of this subject.

## Children's Day At Tulare.

EDITORS PRESS:—Children's Day was celebrated on June 20th by a literary and musical entertainment, followed by ice cream, cake, fruits, nuts and candy:

## LITERARY PROGRAM.

Vocal duet. . . . . Miss E. Maples and E. H. Trescott  
Recitation. . . . . Miss Myra Parish, Children's Hour  
Banjo duet. . . . . E. H. Trescott and Ollie Hareless  
Recitation. . . . . Miss Anna Briggs  
Banjo and organ duet. . . . . Miss Julia Maples and E. H. Trescott  
Recitation. . . . . Roscoe Maples  
Organ duet. . . . . Miss Edith Cairns and Walter Cairns  
Recitation. . . . . Miss Elma Merritt  
Organ solo. . . . . Miss Edith Cairns  
Recitation. . . . . Miss Pearl Talbot  
Organ solo. . . . . Walter Cairns  
Song. . . . . Edith and Walter Cairns

The program was well rendered, and in some features of remarkable merit. Refreshments were first-class, well suited to the occasion and tastefully served.

It was a typical Grangers' family gathering, rendered remarkable by a souvenir from the Master of a fine badge to each of our guests. To enter into details and give the prominence to individuals that their efforts merited and that would be suitable for a local paper seems too much to ask of your valuable space. As so many similar reports appear in these columns, we are sometimes called to regret that Webster has so few adjectives and that new-coined words are not recognized without the stamp of the mint.

To meet all our wants we must demand some amendment to our sub Treasury plan to provide more adjectives as well as more coin. Please give us an editorial note on this point to serve as a guide in future accounts of such gatherings. In planning exercises of this

nature, the writer thinks it important to impress upon every guest the features which make the Grange an institution that we hope may be a blessing to them after we have been followed one by one to our long homes. We want to make these occasions of joy to be looked forward to from year to year, yet at the same time show how deep and solemn a feeling is inspired by the teachings of our Order, and that among our best wishes for our loved ones is that they may become pillars among Patrons and live on the grand old gospel of the Grange.

FRANK S. CHAPIN.

## Combines the Destroyer of Liberty.

The law enacted by Congress and some State Legislatures, within a few years, to protect the public against monopoly and extortion of powerful trusts and combinations of wealth, and the manufacture and sale of spurious and adulterated food, will acquire amendments, and the vigilant power of the governments must be exerted for their enforcement. The full effect of the organization of powerful monopolies in the country is not yet manifest; our nation is too young, and their growth too recent, to show their full possibilities. Onerous as their exactions may be to individuals, their greatest danger will be political. The first intention of their organization was for an honest advantage in business. But avarice knows no bounds, and as they developed and strengthened, new fields opened and opportunities multiplied; accumulated wealth must be invested and greed must be satisfied, even at the expense of individuals and the public. Such concerns, powerful in energy and enormous wealth, with the inspiring motives of money getting and the powers which it controls, seek only the main chance, regardless of the sufferers, and it has been charged that, to accomplish their ends, they do not hesitate to corrupt and control Legislatures. It is no secret that Legislators are furnished with railroad passes; and so rampant is this cheap corruption that in some States laws have been enacted to prohibit the giving of railway passes—however much good such laws do! Observing people know how easily great corporations and moneyed monopolies can obtain whatever legislation they require, and how difficult it is for the people to secure adverse legislation to restrain such corporations, and not content with controlling Legislatures for their pecuniary interests, newspapers have publicly charged that some enormous moneyed corporations have entered the political field in support of special party measures, and even in the election of United States Senators. We boast of wealth, and are proud that ours is the richest of all nations; but if concentrated wealth oppresses the people, corrupts legislators and debases our politics, it is high time we look at the consequences, for history repeats itself, and the germ of destruction of our free institutions may nestle in gold, stocks and bonds, when in unscrupulous hands. As business men and patriots, farmers are interested equally with other citizens in this important question, not only because of the extortions of trusts, but also on account of the dangerous possibilities of enormous wealth. Hence the continued condemnation by farmers of monopolies, and their demand for timely legislation, to control and suppress such powers before they become too many and too strong.

## Reduced Railroad Fares to State Grange.

SOUTHERN PACIFIC CO.

San Francisco, May 27, 1891.

Mr. A. T. Dewey, Sec. State Grange of California:—DEAR SIR:—Replying to your letter of recent date, in regard to excursion rates on account of State Grange session of 1891, to be held at Haywards, Oct. 6. I beg to say that the same rates as in effect last year will apply for the coming meeting.

The return tickets must be purchased within 48 hours after the close of the meeting, and they will be limited to two days from date of sale. Very Respy,

J. H. GOODMAN,  
Gen. Passenger Agent.

Last year Patrons paid the full, unlimited rates, going (securing receipts for fares paid), and one-third rates returning, with stop-over privileges only while going.

## Information Wanted.

FARMERS' MILLS, PA., May 24 1891

A. T. Dewey, Sec. Cal. State Grange—DEAR SIR AND BROTHER: I inclose to you copy of By-law of Eagle Insurance Society of your State, and kindly ask if you know anything about it. Do you know if it is responsible? They have sent me quite a lot of their printed matter, and, not knowing anything about them, I take the liberty of asking you. Any information you can give will be thankfully received and held strictly confidential. Yours in F., H. C., with F.,

W. F. REARICK.  
Although pressed with other fraternal and business duties, we have investigated sufficient to find that there is no institution of the name mentioned that we can recommend, and advise Bro. W. F. R. to step with care and have nothing to do with any such concern.

The Secretary has received this week from Lookford and Woodbridge Granges their reports for quarter ending June 30 '91. Let other Granges be as prompt as possible.



## FARMERS' ALLIANCE.

## Alliance Edition.

Subscribers can receive our FARMERS' ALLIANCE EDITION WITHOUT EXTRA COST, by applying for the same. That edition contains several supplemental pages of Alliance matter, in addition to that which appears on this page through all editions.

## An Ominous Conclave.

One of the most significant of meetings as regards the financial operations of the Government has just been held in New York. At this meeting, the result of the bond-purchasing conspiracy was fully disclosed. The people have demanded the abolition of the National banking system for years, and have been quieted by the friends of that system in both the old parties, with the assurance that when the bonds were paid, the banks would of necessity be eliminated. It has been clearly demonstrated that the National banking system could not be perpetuated by congressional action without precipitating a revolt among the people against the perpetrators of such legislation. In order to serve the banks and defeat the expressed will of the people, the scheme of bond-purchasing was inaugurated. Premiums to the amount of about \$70,000,000 have been paid out since such purchase was begun by President Cleveland; and now when the bonds are about due, the National Treasury cannot meet them, and, as a consequence, they are to be extended. This is not the result of accident, but the end of a well-laid conspiracy. These two-per-cent bonds can be extended under the present ruling of the Treasury for an indefinite time. In fact, they are payable at the pleasure of the Government. The following is the resolution adopted at the meeting of the bankers and Secretary Foster:

*Resolved,* That this meeting, composed of representatives of banks, trust companies and bankers of New York, hereby expresses to the Secretary its unanimous opinion that in view of the necessity for an increase of circulating notes for the movement of the abundant coming crops of every variety, it is to the interest of the country to extend the maturing 4½ per cent bonds at the rate of two per cent interest, payable at the pleasure of the Government, and that a lower rate of interest would tend to contract the currency at a time inconvenient to all business interests.

The press dispatches further say.

Secretary Foster reserved his decision and made no announcement as to what his policy would be, but it is generally understood that he will act in accordance with the resolution. The National banks represented, notified the Secretary that they stood ready in case the bonds were extended, to buy them in the open market, and take out circulation against them. This would increase the amount of the currency in the country by \$28,000,000. In relation to the export of gold, the Secretary gave it as his opinion that the Government had sufficient power to maintain gold payments, even by the purchase of gold if necessary.

Let no one be deceived in this matter. Not a single dollar will be added to the volume of currency. The banks will sell the four-per-cent bonds that they hold, at a premium of 25 to 28 per cent, and purchase two-per-cent bonds at par to take their place as a basis for present circulation. They will in this measure reap the benefit of the high premium, and retain their grip on the volume of circulation. This is the scheme, and nothing else. But there is something beyond all this in the remarks made by the Secretary concerning the purchase of gold. If gold shipments continue for the next six months, as it has for the past six months, Mr. Foster will be compelled to go into the market and buy gold or abandon the financial policy of the past quarter of a century. This resolution, as given above, is another acknowledgment of the correctness of the sub-Treasury plan. It assumes that more money is not only needed, but is imperatively necessary at the season of year when the crops are being moved. This is a fundamental argument for a flexible volume of currency, and made use of by every one who understands the principles of that measure. Such statements as these confirm the belief that the money-owners of the country understand fully the benefits of the sub-Treasury plan, and are entirely willing to put it into practice, but are determined to be the beneficiaries themselves instead of the people. There is going to be some important development in matters of finance during the coming 12 months, and the friends of the sub-Treasury plan can afford to wait with patience and be confident of the result.—*National Economist*.

Wonder what complaint Secretary Foster has that he felt obliged to call a council of the (money) doctors of New York.

The fact that the Government dares not call in its bonds that are due, or issue the money of the country without first consulting Wall street, is evidence that there is something "rotten in Denmark."

The Comptroller of the currency should be compelled by law to remove his office from New York City to Washington.

## Estimated Reform Voting Power.

The New York *Herald*, having made an investigation for the purpose of ascertaining the voting strength of the Farmers' Alliances and their allies, reports from official sources that in Colorado the strength of the Farmers' Alliance

and Industrial Union is about 3000 members, nearly all of them having come in since the Ocala Convention. In California there are 20,000 Alliance men, of whom 8000 are new members. Georgia has about 80,000 on the rolls and is thoroughly organized. Iowa has added 10,000 members to the 5000 who were in the Order in December last; Kansas pays dues on 120,000 men and women; Kentucky has nearly 100,000; Missouri about 90,000; Maryland from 6000 to 8000 (mostly in the eastern shore counties); Mississippi, 40,000; Virginia, 60,000; and there are about 15,000 in the Territories. These are all the States that have perfected State organizations. Work is vigorously pushed in Oregon, which now has 100 Sub Alliances, with about 4000 members; in New Jersey with 50 Sub Alliances and 2500 members; and in Wyoming, Idaho, Minnesota, Washington and Wisconsin. The total strength of the Farmers' Alliance and Industrial Union, therefore, is about 1,270,000, but from this number must be taken about 20 per cent, representing the women and minors, which would leave the voting strength of the Order at about 1,016,000.

In addition to the Farmers' Alliance and Industrial Union, there are, according to Colonel R. M. Humphrey, 800,000 voters in the Colored Farmers' Alliance, almost wholly in the Southern States. Then there are the Northwestern Alliance, with its strength in Nebraska, Minnesota, Iowa and Wisconsin, about 175,000 members; the Farmers' Mutual Benefit Association, strong in Illinois, Indiana and Ohio, with 150,000 members; the Patrons of Husbandry, with about 200,000 members; the Knights of Labor, with 300,000 members; and the Citizens' Alliance, the membership of which is problematical. Making a reduction of 20 per cent in these organizations for non-voters, and to the strength of the Farmers' Alliance and Industrial Union must be added 1,460,000 voters, making the total voting strength of the combination 2,476,000 throughout the country.

## Spirit (of Some) of the Press.

The following from the N. Y. *Sun*, is a specimen of the spirit that is manifested toward the movement of the industrial classes to free themselves from the political and economic serfdom, under which they have been existing, for these many years.

The conference, congress, or confabulation which began at Cincinnati yesterday, includes the largest variety of cranks, corner-grocery economists, plough-tail socialists, out-at-the-elbows politicians, thinkers with a screw loose, and patriots waiting for something to turn up, that has ever been on exhibition.

Yet how many of us are supporting papers that, at the behest of our oppressors, are daily giving vent to such specimens of venom and ridicule, while we cannot afford to subscribe for our county, State and National organs.

These organs, together with the many valuable Lieutenants they have in the dozen or more of our county papers, that are fearlessly proclaiming the truth, are struggling to establish and maintain the right against all the opposition that money can command or the ingenuity of men and devils invent. These papers need our support and deserve it. We should maintain them in preference to any and all others.

When the farmers and laborers cease to reward those who persecute them; persecution may cease.

## State Lecturer's Announcements.

Members of the Alliance, and we hope thousands of other farmers and friends of the cause, will turn out for a good treat from the able and faithful State Lecturer, Bro. J. L. Gilbert, who writes June 18th as follows:

"I will speak at Lompoc on the 31 and 4th prox., at Ventura on the 6th, and at Los Angeles.

I had arranged for Paso Robles for the 1st, but after the President had made the appointment, the Secretary wrote me they had adopted a Constitution that provides that it must be on the 7th, and that they were powerless to change it, so if I can find a Co. Alliance down the coast that meets on the 1st, I will attend it. I want to see Bro. Pedlar and may stop over there. Do you know of any County Alliance that meets on the 1st?"

Remembering that Bro. Gilbert has to be in Lompoc on the 2d let any Alliance near enough to make a visit feasible on the 1st, write or telegraph him.

## County Alliance Meetings.

County Farmers' Alliances will meet as follows:

Alameda, at Niles, Wednesday, July 1st, 10 A. M.  
Santa Clara, at Murphy's Hall, San Jose, Friday, July 3d, at 8:30 A. M.  
San Benito, at Palmdale, Monday, July 6th, 9 A. M.  
Contra Costa, at Walnut Creek, July 2d.  
Nevada, at Rough & Ready, July 2d.  
Santa Barbara, at Lompoc, July 2d, 3d and 4th.

NOTE.—The Secretaries of County Alliances are requested to notify us of the date of county meetings.

BURDETTE CORNELL, the Nebraska Boy Lecturer, will help enliven the Alameda County Farmers' Alliance at Niles, July 1st.

## Alliance County Notes.

## Butte.

An enthusiastic meeting of the Palermo Alliance took place June 15, at the school house. Nominations were made for the various officers of the organization, which will be voted on at the next regular meeting, which occurs on the 29th inst. Those nominated were: H. A. Clark for president; G. W. Smith, vice-president; J. Armstrong, secretary; S. B. Onyett, treasurer; Geo. K. Hooper, lecturer; Mrs. Mitobell, chaplain, and Philip Hawley, Sergeant-at-arms. The delegates nominated to attend the Butte County convention at Biggs on July 7th, were Messrs S. B. Onyett, H. A. Clark and Geo. K. Hooper.—*Progress*.

## Humboldt.

The Table Bluff Alliance folks propose an old fashioned clam-bake on the beach on the Fourth of July. At the quarterly meeting of the County Farmers' Alliance to assemble in this city on July 7th, the officers for the ensuing year will be elected and installed. At this time a good level-headed set of officers will do much to build up the Order in this county. Send your best men as delegates.—*Western Watchman*.

## Orange.

At the last open meeting of the Farmers' Alliance, held in Bank hall, there were enough farmers present, with their families and invited guests, to comfortably fill the hall. The program consisted of songs, recitations, readings and tableaux. Mr. and Mrs. Henri Fairweather gave a number of vocal selections, which were received with delight by the audience. Miss Daisy Shaffer told "How Me and Betty Killed the Bear," and acquitted herself bravely. Mr. Clyde Bishop also recited very creditably. The tableaux were "The Season," "Mortgage on the Farm," and "Mortgage off the Farm." Mr. Hiram Hamilton, in a brief address, explained the political, financial and social plans of the Alliance.—*Orange Post*.

## Placer.

J. J. Morrison, county organizer writes: Auburn, June 19. EDITORS PRESS:—I organized to-day at Edgewood School District, three miles from Auburn, the Edgewood Alliance. The following officers were elected: F. M. Varden Pres. F. L. Smith, V. P.; O. D. Storrs, Sec.; C. A. Young, Chap.; James Orr, D. K. The Alliance is located in the olive district, and will be a strong body of active and earnest workers.

## San Benito.

Dr. Hart of Hollister in *Garden City Alliance* says: Hollister Alliance is on the boom; we have a large class ready for initiation the first Saturday in July. We will not take in new members at the end of the quarter, as we have to pay back dues on male members initiated at the end of the quarter; will have a class of about 25. The citizens of Hollister are raising a large bonus to have the Alliance mill located at this place, and the citizens of Gilroy will have to raise a good large bonus or lose the mill; let them go to work and work with a will, for the mill will be a success, as everybody is in favor of a new mill.

## San Diego.

There are now 55 branches of the Farmers' Alliance in Southern California—26 in Los Angeles, 14 in Orange, nine in San Diego and six in San Bernardino county. The Alliance movement will be quite a factor in California politics in 1892.—*Olay Press*.

## San Luis Obispo.

Arroyo Grande will celebrate the Fourth of July under the auspices of the Alliance and Grange organizations. There will be exercises, consisting of an oration, reading and music, etc., followed by a basket picnic and barbecue at Greene's grove. A program of games and races has been arranged, for which valuable prizes are offered. Officers of the day—Pres., Judge Steele; Vice-Presidents, W. G. Jones, W. Ballagh, J. V. N. Young, J. S. Gregory, J. G. Stevenson, G. Shinn, E. Leedham, W. D. Sevier, W. T. Lane; Marshal, Frank Conrad. There will be a parade in the afternoon and fireworks in the evening.—*Herald*.

## Santa Clara.

The Alliance Co-operative Milling Co. filed articles of incorporation for the purpose of handling orchard products, for the buying and selling of supplies, carrying on a general mercantile business, manufacturing, milling, packing, canning, drying and preserving fruits and vegetables, and buying, selling and exchanging general merchandise and orchard, farm and vineyard products; handling real estate and personal property necessary for the business of the corporation. The directors are: A. R. Ellis, Hollister; P. L. Nash, Hollister; R. Buckledge, Hollister; J. F. Phegley, Gilroy; C. W. Pedlar, Gilroy; George B. Johnson, San Jose. The capital stock is \$50,000, divided into 5000 of shares of \$10 each. The amount already subscribed is \$1480. No one not a member of the Farmers' Alliance and Industrial Union, shall become a stockholder, and no person hold more than 50 shares.—*Gilroy Gazette*.

## Sutter.

The Farmer's Alliance of Yuba City, are making arrangements for a big time on the third of July when the County Alliance will hold its quarterly meeting in Yuba City. Reports from the various Alliances in the county, are that the Order is growing steadily and doing considerable work. At the meeting of the

County organization next month a large amount of business will be done and a full attendance is expected.—*S. Co. Farmer*.

## Tulare.

The Tulare County Alliance will convene at Visalia, July 1st. Each Sub Alliance is entitled to a delegate for their charter, and one for each 20 members and majority fraction thereof. Important business will come up, and though it will be a busy time with farmers, each Sub Alliance should see that a full delegation is present.—*Farm View*.

## Not for Charity's Sake.

State President Cannon in a personal letter recently written says:

"I receive hundreds of applications to flood the Alliances with free reading and they are promptly consigned to the waste basket. New York, Boston and Philadelphia have offered to supply the Alliances of this State with an unlimited quantity of their big dailies. Now, these gentlemen do not publish their papers for Charity's sake. Somebody is putting up millions of dollars to educate the 'ignorant farmer,' as they claim, and we understand pretty well who they are. They have befuddled the brains of the people for 25 years with their literature, which has helped the government to hatch out tens of thousands of millionaires. We now serve notice on those gentlemen that this government incubator must cool off a little so that some of the eggs will not hatch. They have tried all other means and now they try to use the Congressmen. Our friends can all depend upon receiving prompt information on all matters affecting our interests. But old line politicians need not apply. We may expect these assaults from this time on until after the election in 1892. Their only hope is to counteract the revolution started at Cincinnati and if money will do it, it will be done. When we grapple with these monster corporations and the corrupt politicians, stirring times may be expected. But I have an abiding faith in the honesty and integrity of the people and when the question is fairly put to them, whether the almighty dollar or the almighty man is to rule this country, the man will prove victorious.—*Garden City Alliance*.

## Put on the Armor.

EDITORS PRESS:—In your issue of June 20th I saw an article from W. S., and after reading the last part, "I am watching the Alliance to see which it will do," was reminded of school-boy days, when it was "Hit him, Johnny! Hit him! and if you don't get whipped I'll try him."

Now I may be doing W. S. an injustice. He may not be eligible; yet there are those in my own neighborhood who like Alliance principles and would join, but are waiting to see what it is going to do.

Come, W. S., give us some more such pieces in "our RURAL PRESS," and sign your full name, so that the world may know you. Be not ashamed of those principles you advocate, but put on your armor of defiance, and, if eligible, join the ranks of those who are fighting for honest and genuine protection.

E. N. PIERCE, Lect. Union Alliance.

## Our Nebraska Farm Boy's Appointments.

Bro. Burdette Cornell announces the following appointments:

Place.	Day	Date.
Danville,	Saturday,	P. M. June 27
Tassajara,	Monday,	evening June 29
Niles,	Wednesday,	July 1
Walnut Creek,	Thursday,	July 2

WHAT ORGANIZATION ACCOMPLISHES.—The farmer's Alliance of Maricopa county numbers now over 150 members. At their last regular meeting, action was on the shipment to them of a carload of defective grain sacks. They ordered through some Sacramento house, 31,000 first class San Quentin sacks. Those received were in many cases imperfectly woven or poorly sewed. Unless the sacks are made good, the Farmers' Alliance of California will join in punishing the offenders. One farmer's wrongs these days are righted by 10,000 other farmers acting in unison.—*Phoenix, Arizona, Herald*.

PROTESTING AGAINST LAWS FAVORING MONOPOLISTS.—Inasmuch as efforts have been made by Walla Walla (Washington) Local Alliance to buy sugar in carload lots for use by our people, in New York, and have failed because the great dealers have divided territory, so that this coast must buy in San Francisco and eastern people can buy in New York, we protest against all laws which make it possible to thus farm out the business of our country in such a manner, as this is to the detriment of all consumers.—*Union Journal*.

OUR STRONG COUNTIES.—We learn from Brother Pedlar that we now have 416 Sub Alliances, 29 counties being organized. Monterey is the banner county, so far reporting 23 Subordinate Alliances. This speaks volumes for their President, D. G. Wright, who is a live man and whose heart beats responsive to every good work. San Luis Obispo reported 21 Subs, Tulare 20, San Joaquin 18.—*Garden City Alliance*.





### Crystal Faith.

A Crystal-Wedding Poem.

(Written for the RURAL PRESS by L. H. S.)

The gods one day to gentle converse came,  
And with each other vied some gift to name  
To be bestowed upon the mortal few,  
Who fifteen years of wedded life pass through.  
And all agreed great honor to confer,  
"When men are true where gods are prone to err."  
And some brought gifts and heaped them in a place,  
And thoughtful Juno named them o'er with grace:  
"Here's home and riches, honor and content,  
And radiant wisdom by Athena sent.  
Ye generous gods, what else is there to give!  
For more than this what mortal dares to live!"

But all were silent and none gave acclaim.  
And then rose Thetis, silver-footed dame,  
(She who by gentleness maintained her part),  
"Incomprehensive is the human heart,  
In secret loving most, in silence thrilled  
With thoughts unutterable, in silence filled  
With wordless song and rich warm rifts of light,  
That none know of; for human sight  
Forever doubts because it sees no more.  
And love forever fails to claim its hidden store."

"Now some devise we should perfect and give  
To them who fifteen loving years do live  
In wedded bliss—something supremely fair,  
And yet invisible as the ambient air;  
A crystal gem, translucent, heavenly pure,  
Which, given to them whose love we would insure,  
Shall show to each the other's inmost thought,  
The faith unaltered, the loving deeds unwrought."

And then the gods the thought immortal took,  
"Olympian Jove his locks ambrosial shook,"  
And gave assent. Aurora lit the sky,  
And every god a jewel lifted high;  
There, aflame, the wondrous gem was born;  
First, like a star it shone before the morn,  
From heights immeasurable, it fell, and then,  
Came this Soul Seeing to the hearts of men.

Soul Seeing do they live, when fifteen years  
Of wedded care, of mingled joys and tears  
Have made their love so pure, their eyes so clear,  
That faith in trial lives without a fear;  
And sorrow finds surcease; this soul light fair  
Surrounds the sufferer with uplifting care;  
Each other's pain is known without the word,  
"And every sigh supported e'er 'tis heard."

Soul Seeing do they live, doubt dies away,  
And crystal love grows dearer day by day;  
Their crystal confidence, their crystal truth  
Supplants the little joys of giddy youth;  
And from such crystal peace there does outflow  
The light of charity for friend and foe;  
Good words and deeds their tranquil days employ,  
And Heaven responsive addeth joy to joy.

### My Fellow-Traveler.

(Written for the RURAL PRESS by CHARLOTTE PARKER STETSON.)

I little thought, when I set out in the morn-  
ing, and that woman came down the steps of a  
house on our street, and scudded along with  
feeble speed just ahead of me, that she was  
going to be just ahead, or just behind, or just  
beside me all day. If I had suspected it I  
would have gone to New York instead of Bos-  
ton—or to Attleboro.

If there is any one thing in this world which  
wears on me more than another, it is an  
ordinary woman. I like handsome women,  
of course, and good women, of course, and  
smart women I have a great respect for.

Of my own women, I am extremely fond,  
having a good wife, a handsome daughter, and  
a sister as smart as a steel trap.

This woman just ahead of me was neither  
young nor handsome, nor smart, I am sure, nor  
especially good either, for her expression  
showed temper, and so did her voice, so she  
screamed a few last directions in leaving her  
house.

This is a habit women have which I don't  
like. You don't see a man stand at his gate or  
the door of his factory either and yell out part-  
ing directions. He sees to his work while he's  
inside, and when he goes out he goes out.

I suppose women carry their household cares  
about with them everywhere. I know they  
always talk about them everywhere. I've  
noticed it in my wife again and again—always  
something on their minds.

To run a small house and a few children  
oughtn't to take a whole human life. A man  
can keep a hotel and have some spare time.  
And a man can manage a whole orphan asylum,  
and yet not talk in his sleep about it. I  
never knew a man to do both, though. I  
wonder if it is the multiplicity and variety of  
their little cares that makes women so wearing.  
But I've forgotten the one in front of me.

She hurried all the way down the street, and  
I walked slowly and kept easily behind her.  
How absurd it is to see a woman hurry! They  
can't run—that is worse than absurd; it is  
awful! But just to walk fast spoils their  
looks. Their feet go skittering along in no  
kind of step, and their skirts bob and waggle  
about in no kind of time with their feet.

A woman's clothes never look well unless she

is quiet—either sitting still or walking slowly.  
I suppose that is one reason they keep quiet so  
much; and if it were possible to dress in any  
other way, I suppose they might move better,  
but I shall never finish my particular woman at  
this rate.

I was going to stop at the postoffice, but I  
quite forgot it till I saw her turn in there, and  
then I hurried, but it was too late. I had to  
stand and wait for that woman to deposit on  
the stamp window—all an umbrella, a gossamer,  
a bag, one of those everlasting supplementary  
pouches that most women carry nowadays,  
and various little packages. What a mass of  
stuff women do carry about! That ever-pres-  
ent gossamer and umbrella! Why are they  
so afraid of a little rain? I suppose it is partly  
delicate health, poor housed-up things, for the  
most part, but still more a judicious care of  
their dry goods. I'm a family man myself,  
and I know what a sorry sight a wet woman is,  
and how long it takes or how much it costs to  
make their spoiled clothes over again. If  
they'd only wear plain, heavy goods, that rain  
wouldn't spoil. But that would be an awful  
weight, made as they make their clothes. They  
might make them plain and scant, but that  
looks awfully—salvation army and dress re-  
form! What a nuisance women's clothes are,  
anyway, from a practical point of view!

My digression is all right this time—I had  
time for 20 such, while that woman struggled  
with her stamps and her bundles. If a man  
had twice as many things to carry he wouldn't  
obstruct the stamp office window with them.  
He would take out what he wanted and leave  
the rest in his pockets. Why don't women  
have pockets? Breast pockets!

Hip-pocket, tail-pocket, what am I thinking of?  
Of course they can't, with their clothes. Hang  
their clothes? No wonder they flourish those  
bags!

Well, I waited till that woman had bought  
her stamps and stamped her packages, and  
argued confusedly with the clerk, and finally  
picked up all her duds and come out the way  
she went in; so I had to back out before her.

Then I got mine and was through in time to  
see her skipping up Weybosset street.

I wish somebody would start an academy to  
teach women some knowledge of business meth-  
ods, if only enough to travel with.

They'd save themselves years of worry, if  
they only knew the difference between a check  
and a ticket, and that knobs and things usually  
open from right to left.

If women would only use a little sense—  
they've got sense enough, too, of a sort—and  
learn to do these little things with an air of cool,  
easy assurance—no; I don't mean assurance,  
but simply and naturally, like a man—  
no; I don't mean like a man, of course, nor like  
a woman, heaven knows, but like a reasonable  
being. I suppose they act so because of really  
having so little experience in these matters,  
always having had these things done for them,  
and not liking to appear bold and forward,  
which this woman certainly was not.

I saw her go wavering along Weybosset  
street, and stop a moment to look in at Clapp &  
King's. You never can tell by a woman's looks  
whether she is going to buy or not. I wonder  
what mental process goes on while they look  
at strawberries, or lace collars, or children's  
shoes. It's like that joke—"the difference  
between a man and a woman is, a man will pay  
a dollar for a fifty-cent thing he wants, and a  
woman will pay fifty cents for a dollar thing  
she don't want." They never seem to know. I  
suppose they are thinking something like this:  
"Those strawberries look pretty good—thirty  
cents a box. That's too high. William likes  
them, but he hates extravagance. Jennie likes  
them, too—I've a great mind to—no; I won't  
either. It's too early," and so they go off, after  
all.

Now a man would only think of one thing,  
whether he wanted those strawberries or not,  
and secondary whether he had the money to  
pay for them. I suppose it is partly having  
to consider so many tastes and opinions that  
makes them so uncertain—women I mean.

The one in question got out of right just  
then, and I went comfortably to the station  
and got a good seat in the ten o'clock train.  
I read my paper peacefully, the train filled as  
it always does, and we were about to start  
when I heard a timid voice at my elbow—"Is  
this seat engaged?" and there was that woman  
again!

I made room for her, of course, there was no  
other seat in the car, and she sat down by my  
side. So I had an opportunity of verifying my  
former hasty judgment. I was quite right.  
Not young, not handsome, not smart, not even  
extra good.

About thirty-five I should judge. Singular  
how old most women look at thirty-five! Now  
a man of thirty-five is young, just about old  
enough to marry wisely. Then if he marries a  
girl of eighteen or so, there is some chance of  
her keeping even with him.

I wonder what does age them so? It must  
go rather hard too, for they naturally care  
more about being young—or at least, looking  
young.

Now a man at 50 or even 60 can still rise in  
the world and enjoy it, but a woman's fling  
seems to end at about 30. After that they are  
treasures at home, of course, but don't seem to  
have much individual life or ambition. Some-  
times now when they value youth and beauty so much,  
they might keep it at least as long as we do.  
They just seem to blossom and then fade—mar-  
riage and the home; there's no other safe place  
for 'em. But my sister looks ten years younger

than my wife, and really, she's five years older.  
I wonder if it is because she isn't married and  
teaches—is independent, larger interests,  
broader life? But they must marry, and I'm  
sure I wouldn't want my wife to go around and  
see to things in general, as my sister does. A  
married woman can't; and yet the married  
women seem to value their looks more than the  
old maids. We'll I'm thankful the world isn't  
on my shoulders!

We rode to Boston together, and I should  
have been very glad of a little conversation  
with my seat-mate, but that, of course, was  
out of the question. She would have thought  
herself insulted, and called the conductor, no  
doubt, if I had tried to talk to her. How  
sensitive and foolish women are about being  
spoken to! As if one human being could not  
speak to another without evil intention! Still,  
of course, one wouldn't want his wife or daugh-  
ter talking to strangers! You never know  
what sort of persons they are, or what advan-  
tage they may take of a woman's kindness.  
It's a bad world.

I had an errand or two to do in Boston and  
took lunch at a restaurant and got along very  
comfortably with my other business; but all  
day long that woman kept turning up, anxious,  
hurried, adding constantly to her bundles,  
nervously looking at every clock and scrambling  
through a poor little lunch in about a third the  
time I took for mine.

It is astonishing how women neglect them-  
selves in that respect. I don't remember  
ever seeing a single woman order a square meal  
at a restaurant. Always tea and toast, or  
coffee and an omelette, or one plate of soup  
and an ice—never enough to feed a person. I  
wonder if it's money? No, they will get good  
things if they have people with them—that is,  
if it's a man—but then he usually pays—yes,  
and orders too. Still I don't think it's money;  
I think it is instinctive asceticism. Most  
women are self-denying on principle, and yet  
they're extravagant enough, goodness knows!  
I cannot make it out.

She ate her pitiful little lunch and paid for  
it with only one mistake, and started off to ac-  
cumulate more bundles. I took the 5.30 home,  
and so did she. Such a weary, bedraggled  
creature (it rained, of course, before night).  
She sat just in front of me. I had a seat  
turned backward, and I could really watch her  
better than before. She was tired enough to  
have taken a cat nap, but I've noticed that  
women don't do that as men do. I suppose  
they think it is beneath their dignity in  
public.

This woman did try to rest her head—it  
ached I could have sworn—against the win-  
dow frame, but she couldn't even do that on  
account of her bonnet.

Why couldn't she take her bonnet off then?  
Women won't do that in public either, and be-  
lieve their bonnets are still a matter of dress to  
them—not a shelter. All that remains of the  
coif and veil.

And then she couldn't lounge. If they only  
knew what a rest and comfort there is in simple  
freedom of motion—to lay your arm over the  
back, and put your feet up on the opposite seat  
—but then their clothes don't allow of that!  
And, no, I shouldn't like to see my wife sit so.  
But I suppose she feels just as tired of sitting  
one way as I do. No, I don't believe that either.  
They must get used to it, else they would  
die. All the way to my house almost I had  
that woman before me, for she took the same  
horse car, and I declare I felt actually tired  
just watching her. Women are a drag after  
all, most of them, and yet that don't seem fair,  
or real true. I give it up!

### Why He Doesn't Smoke.

Everybody knows that Chauncey Depew  
doesn't smoke, says the *Detroit Tribune*, but  
the reason of his abstinence forms an interest-  
ing story.

"I used to smoke twenty cigars a day," said  
Mr. Depew, "and I continued it until I be-  
came worn out. I didn't know what was the  
matter with me, and physicians that I applied  
to did not mention tobacco. I used to go to  
bed at two o'clock in the morning and wake up  
at five or six. I had no appetite and was  
dyspeptic. I was in the habit of smoking at  
my desk, and thought that I derived material  
assistance in my work from it. After a time  
I found that I couldn't do my work without  
tobacco. I could prepare a brief or an argument  
without smoking, but still I was harassed by  
feeling that something was amiss, and the re-  
sult was not up to the mark. I also found that  
I was incapable of doing any great quantity of  
work; my power of concentration was weakened,  
and I could not think without a lighted cigar  
in my mouth. Now it is perfectly clear that  
without this power of concentration a man is in-  
capable of doing many things. It is this which  
enables him to attend to various and  
multifarious affairs, to drop one absolutely and  
take up another and give it full attention."

Mr. Depew illustrated his meaning by  
spreading out the fingers of both hands and  
making them dodge in opposite directions with  
great rapidity.

"One day I bought a cigar and was puffing  
it with a feeling of pleasure which is only pos-  
sible to the devotee. I smoked only a few  
inches, and then I took it out of my mouth and  
looked at it. I said to it: 'My friend and  
bosom companion, you have always been dearer  
to me far than gold or woman. To you I have

ever been devoted, yet you are the cause of all  
my ills. You have played me false. The time  
has come when we must part.'

"I gazed sadly and longingly at the cigar,  
and then threw it into the street. I had be-  
come convinced that tobacco was ruining me.  
For three months thereafter I underwent the  
most awful agony. I never expect to suffer  
more in this world or the next. I didn't go to  
any physician or endeavor in any way to pal-  
liate my sufferings. Possibly a physician  
might have given me something to soften the  
torture. Neither did I break my vow. I had  
made up my mind that I must forever abandon  
tobacco or I would be ruined by it. At the  
end of three months my longing for it abated;  
I gained 25 pounds in weight. I slept well for  
seven or eight hours every night; I require that  
amount because of my excessive cerebration.  
When I don't get it I am liable to rheumatism  
or sciatica. I have never smoked from that  
day to this, and while no one knows better  
than I the pleasures to be derived from  
tobacco, I am still willing to forego them,  
knowing their effect."

### A Letter Which Contains Much Good Advice.

Following is a letter from Henry Ward  
Beecher to his son Herbert, former collector at  
Port Townsend.

BROOKLYN, N. Y., October 18, 1878.

MY DEAR HERBERT:—You are now for the  
first time really launched into life for yourself.  
You go from your father's house, and from all  
family connections, to make your own way in  
the world. It is a good time to make a new  
start, to cast out faults of whose evil you have  
had an experience, and take on habits the want  
of which you have found to be so damaging.

1. You must not go into debt. Avoid debt  
as you would the devil. Make it a fundamen-  
tal rule. No debt—oath or nothing.

2. Make few promises. Religiously observe  
even the smallest promise. A man who means  
to keep his promises cannot afford to make  
many.

3. Be scrupulously careful in all statements.  
Accuracy and perfect frankness, no guess-work.  
Either nothing or accurate truth.

4. When working for others sink yourself  
out of sight, seek their interest. Make your-  
self necessary to those who employ you by in-  
dustry, fidelity and scrupulous integrity. Self-  
ishness is fatal.

5. Hold yourself responsible for a higher  
standard than anybody else expects of you.  
Demand more of yourself than anybody else ex-  
pects of you. Keep your personal standard  
high. Never excuse yourself to yourself. Never  
pity yourself. Be a hard master to yourself,  
but lenient to everybody else.

6. Concentrate your force on your own  
proper business; do not turn off. Be constant,  
steadfast, persevering.

7. The art of making one's fortune is to  
spend nothing. In this country any intelligent  
and industrious young man may become rich if  
he stops all leaks and is not in a hurry. Do not  
make haste; be patient.

8. Do not speculate or gamble. You go to  
a land where everybody is excited and strives  
to make money. suddenly, largely and without  
working for it. They blow soap-bubbles.  
Steady, patient industry is both the surest and  
the safest way. Greediness and Haste are two  
devils that destroy thousands every year.

9. In regard to Mr. B——, he is a Southern  
gentleman; he is receiving you as a favor to me;  
do not let him regret it.

10. I beseech you to correct one fault—  
severe speech of others; never speak evil of any  
man, no matter what the facts may be. Hasty  
fault-finding and severe speech of absent peo-  
ple, is not honorable, is apt to be unjust and  
cruel, makes enemies to yourself, and is wicked.

11. You must remember that you go to Mr.  
B——not to learn to manage a farm like his.  
One or two hundred acres, not 40,000, is to be  
your future homestead, but you can learn the  
care of cattle, sheep, the culture of wheat, the  
climate, country, manners and customs and a  
hundred things that will be needful.

12. If by integrity, industry and well  
earned success you deserve well of your fellow  
citizens, they may in years to come ask you to  
accept honors. Do not seek them, do not  
receive them while you are young—wait; but  
when you are established you may make your  
father's name known with honor in halls of  
legislation. Lastly, do not forget your father's  
and your mother's God. Because you will be  
largely deprived of church privileges you need  
all the nerve to keep your heart before God.  
But do not despise small churches and humble  
preachers. "Mind not high things, but con-  
descend to men of low estate."

Read often the Proverbs, the precepts and  
duties enjoined in the New Testament. May  
your father's God go with you and protect you.  
HENRY WARD BEECHER.

When night has let her curtains down, with low and  
plaintive hum,  
Mosquitoes thirsting for our blood around our pil-  
lows come.

We watch, we wait with bated breath, while strikes  
the midnight chime,  
And hit our cheeks a stinging slap, and miss 'em  
every time.

YOUR very late in returning from church;  
you must have had a long sermon." "Oh, yes;  
Dr. Sixthly gave us a great discourse on 'The  
Evil of Talking Too Much.'



## Chautauqua Circle.

## Program for the Assembly at Pacific Grove.

The following is the daily program for the coming C. L. S. C. Assembly at Pacific Grove:

Wednesday, June 24th—Opening evening entertainment—Pantomime, "Story-telling in Sign Language," by Prof. T. d'Estrella of Berkeley Deaf and Dumb Institute and two assistants.

Thursday, 25th—Morning; organization of classes in botany, zoology, art, cookery, elocution, English literature, photography, languages, conchology, pedagogy. These classes will occupy every morning of the session. Thursday afternoon, lecture on "Water-color Art," by Prof. J. Ivey, art instructor of the assembly. Thursday evening, lecture, "Shakespeare's Heart," by President Homer B. Sprague.

Friday, 26th—Morning classes; 2 P. M., Sunday-school normal work under Dr. H. H. Rice of Oakland for the first week, and afterward under Dr. J. E. Gilbert of Indianapolis—session every day free to all; 3 P. M., lecture, "Hawthorne's Myths," by Mrs. Florence Williams, assembly lecture on "History and Literature." Friday evening, lecture, illustrated, "Recent Photographic and Visual Astronomy," by Prof. E. E. Barnard of Lick Observatory.

Saturday, 27th—Morning classes; 3 P. M., lecture, "Shakespeare's Brain," Pres. H. B. Sprague; evening lecture, sign-language entertainment by Prof. d'Estrella.

Sunday, 28th—Morning sermon by Rev. W. W. Faris, D. D., of San Francisco; evening sermon, by Rev. W. H. Withrow of Toronto, Canada.

Monday, 29th—Morning classes; 2 P. M., Sunday-school work; 3 P. M., lecture, "Our Food," by Mrs. S. W. Knight, assembly teacher of culinary art; evening lecture, "Away Down South in Dixie," by Selah W. Brown.

Tuesday, 30th—Morning classes; 2 P. M., Sunday-school work; 3 P. M., lecture, "Physiognomy," by Mrs. M. O. Stanton of San Francisco; evening lecture, "The Catacombs," by Dr. W. H. Withrow.

Wednesday, July 1st—Morning classes; 2 P. M., Sunday-school work; 3 P. M., lecture, "A Hurried Glance at Mother Earth," by Prof. J. Dickinson of Los Angeles; evening lecture, illustrated with stereopticon, "The Blood," by Dr. J. H. Wythe.

Thursday, 2d—Morning classes; 2 P. M., Sunday-school work; 3 P. M., illustrated lecture, "The Catacombs," by Dr. Withrow; evening lecture, "Uncle Sam's Warts and Wens," by Dr. F. F. Jewell.

Friday, 3d—3 P. M., lecture, "A Closer View of Mother Earth," by Prof. J. Dickinson; evening lecture, "Fools," by Dr. P. S. Henson of Chicago, the assembly's star lecturer. Free to all.

Saturday, 4th—Patriotic address at 3 P. M. by Dr. Selah W. Brown; evening, grand concert and entertainment by Berkeley Glee Club, Mrs. Mariner Campbell and other famous vocalists.

Sunday, 5th—Morning sermon, Rev. P. S. Henson, D. D., of Chicago; 3 P. M., Sunday-school mass meeting, led by Rev. J. E. Gilbert, D. D. Evening sermon, Rev. A. J. Nelson, D. D.

Monday, 6th—3 P. M., lecture, "Grumblers," by Rev. Dr. Henson. Evening, popular concert by Berkeley Glee Club and others.

Tuesday, 7th—3 P. M., lecture, "Women in Heathen Lands," by Rev. Selah Brown. Evening lecture, "Money," by Rev. Dr. Henson.

Wednesday, 8th—3 P. M., lecture, "With Whom to Keep Company," by Prof. W. S. Monroe, assembly teacher of pedagogy. Evening, "The Other Half," by Dr. Henson.

Thursday, 9th—3 P. M., lecture, "The Sunrise Kingdom," by Selah Brown. Evening, popular concert.

Friday, 10th—Closing day; graduating exercises in the morning, with address by President Hirst. Evening, closing entertainment, "The District School," under capital management.

A two-weeks' intellectual feast. Everybody should go. All who attend the Assembly can go on a two-thirds rate of railroad fare, whether they are Chautauquans or not, by applying to Mrs. M. H. Field, C. L. S. C. Secretary, San Jose, for a certificate. One certificate takes an entire family. Circulars of full information at all the book stores.

## Chaff.

So many people, when they find they are fit for nothing else, try to be good.

MRS. P. KAY (calling): Does your husband ever sleep in church? Mrs. D. Lane: Well, I hardly know what to answer. I tell him he does, and he declares he doesn't.

"FATHER," said Willie, "Did Columbus discover the Atlantic ocean?" "Why, certainly not; what made you ask such a question?" "My joggery says he came across it."

YOUNG HUSBAND: Isn't there something peculiar about the taste of these onions, my dear? YOUNG WIFE (anxiously): Oh, I hope not, my dear. I took snob pains with them. I even sprinkled them with Jockey Club before I put them to boil to take away the unpleasant odor.

A NEW YORK man visited the family of a relative in the country where he was not a welcome guest by any manner of means. After the visitor had spent a couple of weeks, his much-disgusted host said one morning at the breakfast-table: "Dear cousin, don't you think your family will miss you painfully? You ought not to leave them alone so much." "By Jove, that's so," exclaimed the New Yorker; "I'll telegraph them to come right on here."

A CLAIM TO SOCIAL PRECEDENCE.—Hostess: You must give your arm to Mrs. Malecho, William—and put her at your right, and make yourself as agreeable as you possibly can! Host: Why, she's a person of no consequence whatever. Hostess: Oh, yes, she is! She's very ill-natured, and tells the most horrid lies about people, if they don't pay her the very greatest attention!

## YOUNG HOLKS' COLUMN.

## An Intelligent St. Bernard.

[Written for the RURAL PRESS by SAMUELLETTA DICKSON.]

In one of the valleys of California lived a fine Newfoundland-St. Bernard dog named George Washington. The milkman who owned him had five boys; they would have said six, for they considered the dog one of the family. Their mother said she did not know which made her the most trouble, for when a puppy, George pulled the clothes off the line, tore them to pieces, carried off every hat and boot he could find, and dug up her choice plants in the flower-garden. But she ought not to have blamed the puppy, for he really wanted to help all the while. When the boys brought in an armful of wood, he took a stick in his mouth and carried it in, too.

Once when his feet were muddy, and ma would not let him into her clean kitchen, he went and brought a stick of wood and laid it down by the door, and then barked, as if to say: "Please let in such a useful little fellow," and ma did.

In the morning, long before the stars disappeared from the sky, the milkman and his boys were out milking, and George went, too. The cows lay about in the corral, but each, as her name was called, got up and went to the shed where she was milked, and got her bucket of bran. When the milking was done, John, Laurie and George, with the wagonful of cans, went to town. If ever a can-cover or the milk-measure dropped off the wagon, George picked it up and brought it to John.

Often after the milk was delivered and the boys were on their way home, they allowed George to sit on the seat beside them, with the reins in his month, and drive the horses. How grandly he sat up as tall as the boys; if any one spoke to him, he just rolled his eye around, as if to say, "Don't you see I am engaged?" but he never would turn his head. After they returned home, Walter and George took the band of cattle to the creek, and herded them till it was time to milk again.

Walter made himself a booth in a clump of willows, where he read and studied or worked with his scroll-saw, while George kept watch of the cattle that none got into mischief nor strayed away. Sometimes John and Laurie came down with their guns to hunt jack and cottontail rabbits, then they roasted them and had a fine feast. When it was noon, Walter would say, "George Washington, it is time we had some dinner," and off the dog went to the house a mile away, and took the tin pail which ma gave him in his month, and carried it to Walter; then they had dinner together. George was in the habit of doing errands.

One day he was on his way home from market with a piece of meat in his basket, when two little dogs barked very saucily at him, seeming to think he could not hit them with a basket in his month.

George deliberately set down his basket by the fence, and gave the little dogs a severe whipping, then he went on with his business.

Once John took George on to the stage in some amateur play at the Hall, and while he was in the dressing-room, he was boasting of his dog's intelligence, and declared that he understood language. The other boys did not believe it.

"You shall see," said John.

"Come, George, let's go home."

The boys and the dog went up the street a ways, when John suddenly said: "George, I've left my hundle in the hall; go get it and bring it here."

The dog went back to the hall, passed through the crowd, got the bundle and brought it to his master.

"There, now, don't he understand?" cried John triumphantly.

In the summer evenings, after the work was done, pa and ma used to set out on the piazza while the boys and the dog had a game of romps till they were tired; then they would lounge about the steps while George gave a "show."

"Whom will you die for?" one of the boys asked.

George sat up straight and rigid.

"Will you die for me?" Not a muscle moved.

"Will you die for General Grant, the greatest general?" Still no sign of dying. "Will you die for George Washington, whose illustrious name you bear?"

Then down he dropped, limp and motionless, and lay with closed eyes till some one snapped his fingers and said: "Arise!" when he was suddenly reanimated; then ma put a piece of meat on his nose, which he tossed up and caught in his month as it fell.

Sometimes the boys brought home other dogs, but George was so jealous that he would not come inside the yard while the other dog remained.

Once Hal, the oldest son, came home with a fine puppy. George immediately retreated to the road and lay under the ypress hedge, and no amount of coaxing could induce him to come near the house, even to eat.

One day the puppy ran out into the road where George was; this was more than he could bear, and picking up the little offender he walked to the watering trough, and tried to hold him under the water the way he was in the habit of doing with squirrels, but the pup

was so fat and heavy that he could not keep him under. Hal heard his puppy crying and came just in time to save him.

After that Hal kept his puppy shut up till he took him away.

George did not live to be very old. Once when hunting, a snake hit him on his foot, which ever afterward caused him much suffering. His death was considered a family bereavement, and he was buried under an acacia tree.

## DOMESTIC ECONOMY

## School Luncheon.

In filling the lunch basket, and a pretty one should be provided for every child, a clean napkin, a small knife, fork and spoon, with a little china or plated cup, should be placed in the bottom. The bread should be cut thin, and buttered neatly, next a slice from the lean part of the joint, the fat and ragged edges trimmed away. Cakes and pies, folded in clean white paper, custards and jellies put in pretty cups. We were once much amused by hearing a grown woman, the mother of a family, whose fastidiousness had survived her childhood, in speaking of a former schoolmate, "Oh, she was the girl who always brought horrid chunks of bread and meat, wrapped in brown paper, to school for lunch. She sat close to me, and the sight of it took my appetite for the contents of my own dainty basket. I do not wonder, notwithstanding her educational advantages, that she grew up coarse and unrefined." And, indeed, snob indifference on the part of a mother to the preparation of food to be eaten by a child is well calculated to produce such a result. Mothers, then, who have the health and welfare of their children at heart, should do all that is possible to give the school luncheon an appetizing and dainty appearance to the little people who depend so largely on it for the brain force and working powers of their long, tiresome school day.—Table Talk.

MUTTON CHOPS WITH LEMON.—Wash the chops, wipe them dry, grease the bars of your gridiron, and broil them over hot coals. When they are done, lay them on a dish and season them with pepper and salt, and haste them with butter; peel and slice lemons, lay a slice on each chop and send them to the table. This is the French method of serving them.

ICE CREAM CAKE.—Beat one-fourth pound butter to a cream; add gradually one and a half cups of sugar; then add a half-pint lukewarm water, two and one-half cups flour; beat thoroughly and stir in carefully two even teaspoonfuls baking-powder and the well-beaten whites of four eggs; bake this in three layers. Put it together with a hotted icing.

FRIED CHICKEN.—Singe; cut at the joints; remove the breastbones. Wipe each piece with a clean wet cloth; dredge with salt, pepper and flour, and saute them in hot salt-pork fat till brown and tender but not burned. Arrange on a dish with boiled cauliflower or potato balls and pour a white sauce over them, or dip in egg and crumbs, and fry in deep, hot fat and serve with tomato sauce.

COLLEGE PUDDING.—One pint soft bread-crumbs, one pint warm milk, one tablespoon soft butter, two tablespoons sugar, two table-spoons cream, one saltspoon salt, one-half nutmeg, two eggs, one cup currants. Use the inside of a loaf of bakers' bread; soak it half an hour in the milk. Dry the currants in a little flour. Mix in the order given, and bake in custard-cups. Stir once or twice while baking, to prevent the currants from settling.

ICING FOR CAKES.—Beat the whites of two eggs till they are very dry, then add gradually ten ounces of pulverized white sugar. Dredge flour over the top of the cake and wipe it off, to make the icing adhere. Put it over with a broad-bladed knife; it should be put on quite thick. When this coating is dry, dilute the remainder of the icing on your dish with a little rose-water, and put another coating over the top, which will have a glossy appearance.

FROTHED EGGS.—Separate the eggs carefully without breaking the yolks; heat the whites until they are very fine and stiff. Then arrange them neatly in small onatard-cups, making up a place in the center to hold the yolks. Slip one yolk carefully into the center of each cup, stand the cups in a pan of boiling water, and cook in the oven for about two minutes. Dust them with salt and pepper, and put a small piece of butter on each one and serve immediately.

STRAWBERRY SHORT CAKE.—To one quart of flour add two heaping teaspoonfuls of baking powder, half a teaspoonful of salt and one teaspoonful of powdered sugar. Sift all together in a deep bowl and chop into it three ounces of butter. Beat one egg and add to it one large onpful of sweet milk. Stir this into the other ingredients as quickly and lightly as possible. Roll into two sheets, each about half an inch thick, and bake in well-greased pans. When done pull the cakes apart and spread them with softened butter. Sprinkle thickly with powdered sugar and cover well with strawberries or raspberries, well sprinkled with sugar and slightly mashed. Put on the other half of the cake, crust side down, and pile berries and sugar on top; to be eaten hot with sugar and cream. This will make two cakes two layers each, or one with four layers.

## GOOD HEALTH.

## The Physician as a Despot.

Without any pretense of faith in any doctor who is not regular, and without prejudice to a sincere intention of calling in a thoroughly instructed and expert practitioner whenever occasion demands, it is still permissible to smile amiably at the professional jealousy of quacks. The successful physician, with exceptions which happily are much more numerous than they were, is the most intolerant despot on earth, and we encourage him to be so. We are vaguely aware of the limitations of his knowledge. We know that he has to guess first what is the matter with us, and next what will do us good, and, that though there are facts his acquaintance with which help him to guess right, many theories that regulate his professional action are still hypothetical and may or may not be correct. We know that he has discovered that many of the methods his father used were unwise and deleterious, and that the doses his grandfather gave often hastened the result they were intended to prevent, and hindered what they were designed to induce. We know not only that he is a man, and therefore fallible, but that his professional science, like his father's and grandfather's, is progressive and is still very far from being exact. Nevertheless, when anything ails us, in spite of all we know of his limitations, we fly to him as though he were all wise, and do as nearly what he tells us to as our flesh and our pockets permit, for we believe that, erring and inadequate as he is, he knows more than we do, and that his knowledge is, on the whole, the best that is at our command.

This childlike trust in our physicians is a phenomenon which is creditable to us and to our doctors, and from which we both get benefit. Undoubtedly our physicians do us good; and indeed they ought to, even if they knew less and guessed less fortunately than they do, else were faith a much less potent virtue than it is declared to be. But it is one thing for us to flock of our own accord to the doctors, and quite another thing for those professional gentlemen to hold that we shall come to them and to no one else, and that we may neither be legitimately born nor die legally except with the concurrence of the learned faculty.—Scribner.

SKIN GRAFTING BY MACHINERY.—The practice of skin-grafting has become so common of late, and the pain, difficulty and slowness of taking grafts by the usual process of pinching up the skin and clipping it by scissors is so great that Dr. Mixer, of the Massachusetts General Hospital, has set himself to devising machinery to accomplish this purpose. He has succeeded in producing what is pronounced to be a wonderfully successful device, the first use of which is described substantially as follows: The patient had been etherized and had undergone an extensive surgical operation on her breast. The instrument for the removal of skin was applied to the anterior portion of the right thigh, and three strips, about an inch wide by six long, were taken off and transplanted to the exposed surface of the breast. The operation of removing the skin and transplanting it to its new quarters did not occupy more than six minutes. A very few days will suffice to restore the denuded surface of the thigh to its normal condition, leaving few traces of the reparative process, while the portion of breast removed will heal over rapidly by first intention. The thickness of skin removed does not exceed one-sixteenth of an inch. The advantages of the new over the old method of epidermic detachment are obvious. It is expeditious, the sections of shaved outicle are much larger and of a more uniform thickness than can be obtained by the most dexterous manipulator, and the chances of successful grafting are enhanced by the fact that the skin is transplanted while the cellular elements are in their full vital activity.

HEALTH OF THE STATE.—Reports to the Board of Health from 66 towns and villages, having an aggregate population of 608,945, show a mortality during the month of June of 945, a percentage of 18.60 to the 1000 per annum. Among the causes of deaths and the number of decedents we find the following: Consumption was fatal in 140 cases, being a reduction of 24 since April. Pneumonia was the cause of death in 91, bronchitis in 21, and congestion of the lungs in 11. There were 15 deaths from diarrhoea and dysentery, 8 from cholera infantum, and 34 from other diseases of the stomach and bowels. Diphtheria caused 33 deaths, orup 13, scarlatina 2, measles 3, and whooping-cough 8. Typho-malarial fever is accredited with 3 deaths, typhoid fever with 20, remittent and intermittent fevers 7, and cerebro spinal fever 3. Cancer caused 24, erysipelas 3, heart diseases 58, alcoholism 8, and all other causes 420.

CHANCES IN MEDICINE.—A doctor says that 75 out of every 100 persons who fall into a physician's hands would get well without any help, and the majority of the remaining 25 are past all human aid and the physician gets the blame for not saving their lives.





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SAN FRANCISCO:

Saturday, June 27, 1891.

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Insurance—Butler & H. Iden.  
Fruit Trees—James T. Bogue, Marysville.  
Dividend Notice—The German Savings and Loan Society.  
Dividend Notice—San Francisco Savings Union.  
Egg Food—B. F. Wellington.  
Fruit Trees—Isaac Collins, Haywards.  
Sheep Wash—Chas. Dulsberg & Co.  
See Advertising Columns.

#### The Week.

Just as the vacation season is at its height in city and town, and social affairs are light because of the numbers of absentees at seaside, mountain-top and springs, the producing regions are in a state of the greatest activity. It is almost impossible to secure adequate help to gather the fruit and the grain which demands immediate attention.

It is feared that losses must occur unless every available arm is raised in the producers' service. It is claimed that there are labor supplies available in the city, but there is lack of system for the bringing of the supply and demand together.

Much has been done in the smaller cities and towns adjacent to fruit regions by employing the boys and girls and women and every effort should be made to use this supply to the fullest this year. The schools should defer opening until the press of the work is over, and there should be the fullest recognition of the fact that to help in such an emergency is honorable. We trust by a general disposition to help there may be no losses through inability to harvest the bounty which the generous season gives.

#### Close of the Volume.

This issue of the RURAL brings another volume to its close, and again we pick up the big Roman letters to stamp Vol. XLI as it goes upon the shelves alongside its two-score of fore-runners. As these letters multiply, we find ourselves more and more apt to allude to our history, for a California journal being such numbers is really old and must have a history. Fortunately it has not been eventful from a sensational point of view, for the original pair of proprietors who started the outfit on a clear road in 1870 are still speeding it along. They have younger forces to help pull now, it is true, but the old leaders are still in the traces and are responsible for the the unchanged course of the paper, which gives it the enthusiastic and generous support of the producing classes of the Pacific Slope. As neither of these leaders happens to be around while this pen is being pushed by a junior, let us all take occasion to express satisfaction that the founders are still rich in health if not in wealth, and to hope that they may remain healthy till they become wealthy. This will certainly mean long life to them and incidentally a heap of good to the public.

But we did not intend giving this paragraph such a personal turn when we wrote the first line. We would call attention merely to the successful termination of another main division of our journalistic life and to the fact that if there is anything in the RURAL for the last half year which you don't see, ask the index for it. On the last page of this issue may be found this carefully prepared key to the contents of the volume. If you have kept the current issues and have no "patent blinder," just punch holes through the bundle carefully along the rear margin, work back and forth with a shoe-string or corset lace or a piece of stout hemp twine, cover the whole with stout brown wrapping paper, and you will have a volume on rural affairs in California more comprehensive and more full in practical details than you can elsewhere obtain. And now for the future. With the first issue of July will begin Vol. XLII. It is an excellent time to start in with a subscription. The publishers have brought the subscription rate down to a low notch and have still increased the size and improved the contents of the journal. New agriculturists are coming into nearly all neighborhoods. As you form their acquaintance, and as they ask you as to how they can best learn the details of California agricultural practice, will you not tell them of your experience with the RURAL PRESS and invite them to send us their subscription or to apply for sample copies that they may judge of the applicability of our work to their needs. We desire the RURAL to grow and improve as the coast is developed. We aim to command success by deserving it. Our request, then, of our friends is, give the stranger a hint that the RURAL is published to minister to and to show forth progress in California agriculture. If each friend will do this for us, we shall be able to largely increase and improve our work during the coming months.

#### Farmers' Institute at Malaga.

The Fresno County Farmers' Institute will hold its first quarterly at Malaga on Monday, July 6, beginning at 10 A. M., and holding through the day and evening. We urge all our readers in the region to attend these meetings if possible. The program as published in the Fresno paper shows that the committee has been very successful in securing the co-operation of both gentleman and ladies in bringing forward subjects of importance, and in providing plenty of music, recitations, etc., all of which will enliven and add charm to the proceedings. Col. McGilney will speak on co-operation and J. M. Martin upon raisin production. The Fresno plan is to hold quarterly meetings in different parts of the county, and once a year have an annual Institute, which shall be a general round up, at some central point. Don't forget to be in Malaga on Monday July 6, day and evening.

**IRRIGATION INQUIRY.**—Col. R. G. Hinton of the U. S. Department of Agriculture is now in California collecting all the information possible on the subject of irrigation, both from personal observation and examination and from those who have collected data.

#### California Raisins and Foreign Markets.

The large and yearly increased production of California raisins admonish packers that they must exercise the utmost vigilance in sorting, selecting and packing the fruit, so as to enable them to successfully compete with the products of other countries in their efforts to enlarge the outlet. Shipments made to Australasia have met with favor. This is attested in the increased exports to that country; this is largely due to new California raisins being the first received. Experimental shipments made to England were brought into more direct competition with the more choice brands of Spanish raisins. The criticism that these shipments provoke, furnish, if rightly applied, information calculated to help our packers in their efforts in securing a foothold in the foreign markets. According to the New York *Fruit Trade Journal*, California raisins never would become popular or gain a foothold in the English markets in competition with Spanish raisins, until the fruit was better cured and in larger bunches than is now the case. Besides this the "dressing" must be made more attractive to the eye, another important point which needs to be improved upon. It is further argued that the grading of every lot is different in degrees of quality—a great drawback in every large market. There can be no doubt that as the raisin production increases, the packers and growers, too, will find it absolutely necessary to use the foreign markets for an outlet for the surplus. To gain a profitable foothold, the above points must be observed, together with the establishing of a good reputation for a brand, which must always be kept to a very high standard of excellence. Growers of every kind of product, only are sure of best results, when they have made a "good name" with the buyers in the large markets.

The outcome of the appeal for a reduction of overland rates for raisins is rather small. The railways will grant a reduction of five cents per cwt., making the rate \$1.50 instead of \$1.10, which the producers asked for. It is a case of small favors—will they be thankfully received? We hardly think so, in view of the fact that the raisin-producers claim the present rate is a clear case of discrimination against raisins. In a report of a recent Fresno meeting is the following:

A glance at the rates charged per hundred-weight from Fresno to points beyond the Missouri river will show the injustice of the present schedule. The railroad men do not claim that it is justice to the raisin shippers, but say that these rates are necessary to help along the other industries of this valley that are not so valuable as raisin-growing, and that stand in need of encouragement and assistance. The rates on four of the chief articles shipped over the railroads East from California is as follows:

	Per cwt.
Wine.....	\$1.00
Canned fruit.....	1.10
Oranges.....	1.25
Raisins.....	1.55

This schedule is an object-lesson in discrimination which is not hard to learn. There is no good reason why one of these products should be shipped any more cheaply than another. A hundred pounds of wine weighs as much as a hundred pounds of raisins; and it is as difficult to handle. It costs the railroad company as much to haul a ton of wine from here to Chicago as it does to haul a ton of raisins. Yet a great difference is made in the charge.

It seems to be simply a case of the application of the old principle—"what the traffic will bear." This doctrine does not seem to suit producers.

**IMMIGRATION CONVENTION.**—The Immigration Convention will commence in this city, on Monday, Aug. 24, and will be composed of 200 delegates drawn from the various counties, in proportion to population. No proxies should be accepted unless handed in by a resident of the same county as the regular and duly appointed delegate. A call was formulated, and it will be sent to the Boards of Supervisors in the 54 counties, asking them to appoint to the convention only men who have the full confidence of the community.

**LARGE WOOL SALE.**—It is telegraphed from Albuquerque that William McIntosh, the largest grower of merino wool in the Territory, has sold his spring clip of nearly 200,000 pounds, the highest bidder being A. J. Crawford, the local representative of Krillie & Nichols of Trinidad, Col., for 18 cents per pound. Ten firms had bids in for this year's clip, for it is considered a great stroke of enter-

prise to secure the McIntosh wool on account of its quality and the fact that it is entirely merino wool. The wool season is practically over in the Southwest, and the dealers claim that the spring clip will not come within the output of last year by one-third. This is owing to sales of sheep to outside parties and losses during the past severe winter.

#### Dairy Pictures.

We give on our first page this week another group of very interesting California dairy scenes from the *Overland Monthly* for May. We have several times alluded to the commendable enterprise of our California literary magazine in laying before its readers the industrial features of the coast, and those we give this week are quite characteristic of the State. The chute or milking-way one cow wide by which a long line of "bosses" are held down to business while the milkers gain access to their udders through the openings in the fence, is, we take it, a device which, for originality at least, we admire is without superior. The waterwheel at Shasta shows how the ingenious settler can make his brains save his back by knocking together a home-made waterwheel to do his churning. Quite a number of our dairymen have found the centrifugal separators so valuable that they are using two or more. This sketch shows how two are used in connection with one supply reservoir. A mammoth churn, barrel pattern, moving end over end, shows what the Stoddard churn is when it gets to its larger sizes. The cheese curing room, with its economy of space by many shelves and its stove for maintaining an equable temperature is illustrative of our cheese dairies, as also is the view of vats and presses. Two new themes are the scenes in the lower corner pictures. The flume for conveying milk from corral to dairy must require considerable scaffolding to keep it sweet. The dairyman's bedchamber beneath the trees is suggestive of the season, and the harn in the distance show that the men sleep in the open air out of regard for the climate and not because the proprietor does not believe in good buildings.

#### First Cargo of Wheat in Bulk.

According to the Tacoma (Washington) *Ledger*, the British iron ship Ben Mac Dhui is taking in a cargo of wheat at that port in bulk, which, if the voyage to England is successfully made, promises to revolutionize the carrying trade of this coast, and largely in favor of farmers, by doing away with the necessity of sacking their grain for export. It has been contended by underwriters, ship-owners and also wheat exporters that the shipment of grain hence in bulk could not be successfully accomplished, owing to the length of time in transit and consequent fear of the cargo heating, and also danger of the cargo shifting, and foundering the vessel. Against these dangers every precaution has been taken. The vessel's hold has been separated by bulkheads into four large compartments or bins. A layer of sacked wheat, nine sacks wide, was placed around these walls to hold the loose grain more securely. Canvas was spread upon the floor for additional protection against moisture. The vessel was loaded in a very short space of time and claimed to be a great success.

**HORTICULTURAL SHOW AT SAN JOSE.**—Active preparations are in progress for the horticultural display to be made in San Jose during fair week in August, to be under the District Agricultural Association and co-operated in by the Santa Clara Valley Agricultural Society and Horticultural Hall Association. It is proposed to give liberal prizes for fruit exhibit and form a nucleus for the display at the World's Fair. Captain Frank Dunn has been appointed manager.

**CANNED CHERRIES SCARCE.**—The N. Y. *Commercial Bulletin* says: We learn of contracts for California canned cherries having been purchased from jobbers this week for canners who are unable to secure stock to fill the orders on hand. Eastern packers, in all probability, will find a market for their cherries this season.

**TOO MUCH SOAP.**—There is evidently something wrong in the spray formula given under Yolo county in our Agricultural Notes on page 618 of this issue. No doubt it should be five pounds of soap, not five barrels.



## Buildings of the Columbian Exposition.

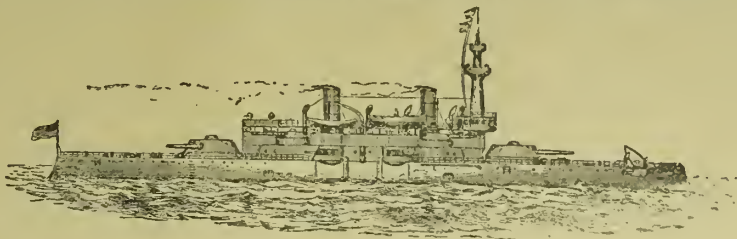
We gave last week views and descriptions of two of the buildings to be erected for the Chicago World's Fair of 1893. We continue with other engravings upon this page.

The United States Government Exhibit building was the first Exposition structure to be planned. It will occupy a site near the Lake Shore, south of the main lagoon and of the area reserved for foreign nations and the several States, and east of the women's building and of Midway Plaisance. The Government Building was designed by Architect Windrim, now succeeded by W. J. Eihrooke. It is classical in style, and bears a strong resemblance to the National Museum and other Government Buildings at Washington. It will cover an area of 350 by 420 feet, will be constructed of iron, brick and glass, and will cost \$400,000. Its leading architectural feature is a central octagonal dome, 120 feet in diameter and 150 feet high, the floor of which will be kept free from exhibits.

The south half of the Government building will be devoted to the exhibits of the Postoffice Department, Treasury Department, War Department and Department of Agriculture. The

imitation battle ship of 1893 will be erected on piling on the lake front in the northeast corner of Jackson Park, at the pier which forms the prolongation of Fifty-ninth street. It will thus be surrounded by water, and will have the appearance of being moored to a wharf. The structure is to have all the fittings that belong

top of which will be placed two circular "tops" as receptacles for sharpshooters, and rapid firing guns will be mounted in each of these tops. The light from the water line to the summit of this military mast will be 76 feet, and above it will be placed a flagstaff for signaling; this staff will be 24 feet long.



U. S. NAVAL EXHIBIT.

to the actual ship, such as guns, turrets, torpedo tubes, torpedo nets and booms, with hoists, anchors, chain cables, davits, awnings, deck fittings, etc., together with all appliances for working the same. Officers, seamen, mechanics and marines will be detailed by the

The battery, mounted, will be four 13-inch breech-loading rifle cannon, eight 8-inch breech-loading rifle cannon, four 6-inch breech-loading rifle cannon, twenty 6-pounder rapid-firing guns, six 1-pounder rapid firing guns; two Gatling guns, and six torpedo tubes or tor-



MACHINERY HALL AT THE WORLD'S COLUMBIAN EXPOSITION.

north half will be devoted to the exhibits of the Fisheries Commission, Smithsonian Institute and Interior Department. The State Department exhibit will extend from the rotunda to 24,000 square feet; Postoffice, 9000 square feet; Fishery, 20,000 square feet, and Smithsonian Institution, amount of space unsettled. There can be no doubt that the exhibits which the United States Government will make will constitute one of the

Navy Department during the Exposition, and the discipline and mode of life on our naval vessels will be completely shown. The detail of men will not, however, be as great as the complement of the actual ship, the object being mainly to have expert janitors and showmen for the valuable public property. It is expected, however, to give certain drills, especially boat, torpedo and gun drills, as in a vessel of war.

pedo guns. The entrance of the vessel will be from pier at foot of Fifty-ninth street to the main deck, thence down companion or hatchways to the berth deck, where a spacious room, the whole length and width of the vessel, is to be filled with the naval exhibits.

The pier entrance will have a register turnstile to record the number of visitors. The exit will be from another point of the structure. On this (exhibit) deck may be seen the man-



THE U. S. GOVERNMENT BUILDING.

most extensive, complete and interesting features of the whole exposition.

## The U. S. Naval Exhibit.

The naval exhibit will be, perhaps, the most unique of all. It will be in a structure which, to all outward appearance, will be a faithful, full sized model of one of the new coast-line battle ships designed by the Bureau of Construction and the Department of Justice from the rotunda to the west end of the building. The allotment of space for the several department exhibits is: War Department, 23,000 square feet; Treasury, 10,500 square feet; Agriculture, 23,250 square feet; Interior, 23,000 square feet; and Navy Department, and now being built at a cost of about \$3,000,000 each by Oramp & Son, Philadelphia, and the Union Iron Works, San Francisco. This

The structure will, therefore, serve the double purpose of housing the naval exhibit and illustrating the manner in which the men of our navy live.

The dimensions of the structure will be those of the actual battle ship, to wit: Length, 348 feet, and width amidships, 69 feet 3 inches, tapering to a point at the bow and stern. From the water line to the top of the main deck, 12 feet, on top and in the central position of which is a superstructure 8 feet high, with a hammock berthing resting on the same, 7 feet high, and above these will be the bridge, chart-house and the boats.

The battle ship of 1893 will not carry spars or sails, but depend entirely on steam for motive power. But at the forward end of the superstructure there will be a cone-shaped tower, called "the military mast," near the

ner in which torpedo tubes are manipulated, the mechanism for working the larger turrets and guns and the handling of ammunition.

Beneath the berth deck and directly below the turrets of the 13 inch guns are to be the magazine, showing the stowage, lighting and flooding, according to the navy regulations.

The superstructure will show the cabins, staterooms, lavatories, latrines, mess-rooms, galley and fittings, mess-table for crew, lockers, berthings, etc., also the methods in which officers and enlisted men live, according to the rules of the navy. It will present a complete object lesson for the American people, and a convincing proof of the statement that the sailors of the United States Navy are the best paid, the best fed and the best treated men of any navy in the world.

## The Machinery Building.

The central engraving on this page presents a view of a portion of Machinery Hall. This building will be 850x500 feet and cost \$450,000. It is located at the extreme south end of the park, midway between the shore of Lake Michigan and the west line of the park. It is just south of the Administration Building.

The building is spanned with three arched trusses, and the interior will present the appearance of three railroad train-houses side by side, surrounded on all the four exterior sides by a 50-foot gallery. In each of these long naves there is to be an elevated travelling crane for mining machinery. Steam power for this building will be shipped from a power-house adjoining. The two exterior sides adjoining the grand court are to be rich and palatial in appearance. The two facades of Machinery Hall on the court are rich with colonnades and other features.

The design follows classical models throughout, the details being followed from the renaissance of Seville and other Spanish towns, as being appropriate to a Columbian exposition. An arcade on the first story admits passage around the building under cover. A colonnade with a cape at either end forms the length between Machinery and Agricultural halls.

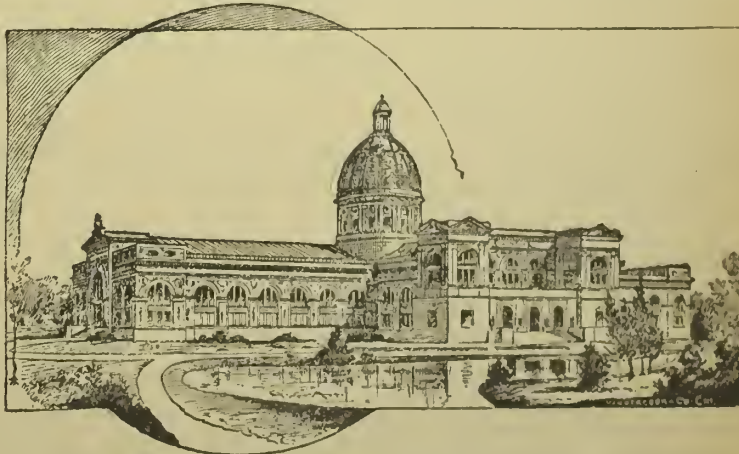
## The Illinois Building.

The State of Illinois, being the host, and having made the largest appropriation of any of the States, will have a specially fine building. The structure in the main is 160 feet wide by 450 feet long, with the school house about 75 by 60 feet, taken out of the east end and within the building. The dome will be 72 feet in diameter and about 200 feet high, with a lookout about 80 feet high and another in the lantern about 175 feet high. The side walls are 47 feet high, while the centre wing on the south will be 72 feet high, and both ends 54 feet, with a still higher projection in the centre.

On the north the Memorial Hall will form a wing 50 by 75 feet, while on the south will be placed the executive offices in a wing 75 by 23 feet, carried up three stories, with a public hall in the third story. In addition to these offices there are to be others in each of the four corners for the departmental officers. The building is to be embellished with fine carving and statuary, the material to be cast blocks of some approved composition. In front of the entrance there will be stone terraces with railings, statues, and stone steps leading down to the roadway.

A NORTHERN IRRIGATION ENTERPRISE.—Work has been commenced on the outlet which is to tap Eagle lake, in Lassen Co., and convert the lake into a reservoir which will irrigate a large tract of sage-brush land in Honey Lake valley. Eagle lake has an area of 28,000 acres, and lies in the Sierra sugar pine belt, at an altitude of 5000 feet, with no outlet. The enterprise is said to be backed by ample local and San Francisco capital.

DISCUSS THE RAISIN INDUSTRY.—At the last meeting of the State Board of Trade, D. J. Perrin challenged the statement of State Viticultural Commissioner George West, who recently predicted a surplus in the United States of over 3,000,000 boxes of raisins in 1895. He thought West meant well, but was grievously in error, and had done the State a great injustice. N. P. Chipman took up the matter, reading a



BUILDINGS OF THE STATE OF ILLINOIS.

statement which showed a surprising increase in the per capita consumption of raisins in late years. It was decided to request the presence of Mr. West, Dr. Perrin and other experts at the September meeting to discuss the matter more thoroughly. It was the sentiment of the board that this theory of overproduction was the same old bugaboo that had always menaced California's future, and that it was in this, as in all former cases, without foundation.

AMERICAN POMOLOGICAL SOCIETY.—We have received from G. B. Backett, Secretary, Denmark, Iowa, the announcement that the 231 session of the American Pomological Society will be held at Washington, D. C., on the 22d to 25th of September, 1891. An official program will be issued at an early day.



# AGRICULTURAL NOTES.

## CALIFORNIA.

### Butte.

**AN AVERAGE CROP.**—*Oroville Mercury*: Barney Minsboldt, one of Butte's largest and most prosperous farmers, says that it is now quite certain that Butte will harvest an average crop of grain—about 14 sacks per acre on the adobe lands. This is gratifying, as the outcome of the wheat has been very doubtful for a month or two. On the redlands, the yield will also reach the average—from three to five sacks per acre.

**POTATO SHIPMENT.**—*Mercury*: W. R. Strong Co. are shipping potatoes from the Palermo depot, raised on the old Ouyett ranch, near this place. Two carloads have been shipped, and they have about 30 more to follow as fast as loaded; these potatoes are bound for Oregon, Washington, Idaho, Montana and other States east of the Rockies, one carload being sent as far east as St. Joseph, Mo.

**BIGGS FRUIT SHIPMENTS.**—*Argus*, June 18: On Wednesday, June 17, there was shipped from the Biggs depot, the first carload of peaches from the first orchard planted on Rio Bonito by Hatch & Rock (on the west side of the river) for market purposes, and this orchard scarcely three years old. As near as we can learn, the proprietors of the orchard will have about 40 carloads to ship this season. Fruit raising in this section is now just fairly begun and with a wonderfully favorable outlook for future prominence, not only in quantity but in variety and quality. The trees that were planted three years ago and which are now permitted to produce their first crop, are not only unusually thrifty and prolific but they are all symmetrical in shape, clean and free from pest. W. Treat & Son's orchard comes next in bearing and from this orchard quite a large shipment will be made this season. The fruit to be shipped in baskets of which large numbers have been received at the orchard, ready for the ripening fruit. Of the orchards now growing on Rio Bonito, 1750 acres owned by Hatch & Rock, 250 acres by Hammond & Alexander, 150 acres by Treat & Son, 500 acres by Reed & Johnson, 60 acres by M. Goldman, 50 by Mr. Seybold and other orchards ranging from 10 to 20 acre tracts, owned by Capt. P. G. Brown and others, will soon be in bearing.

### Fresno.

**ACREAGE TO GRAIN.**—*Reedley Exponent*: There are 23 combined harvesters, not to mention headers, which are now running in the vicinity of Reedley. The machines cost on an average \$1700 each, or \$39,100 in all. The rule is 26 animals to each machine, or 598 for the whole number. It is a fair estimate to say that harvesting will continue 80 days, and each harvester will cut on an average 28 acres daily. This gives a total of 644 acres daily, or a total of 51 520 acres of grain which will be harvested here this season. These figures do not include an acre of the vast area which will be out by headers.

**GRAIN CROP.**—*Fresno Republican*: Grain is beginning to come into the warehouses, and a few weeks more will see them the busiest places in the city. M. W. Muller says: "It is not going to be near as bad as it was thought some time ago. The fact is that though we had no rain we had some excellent cool weather and the cool nights brought some moisture, so that the grain kernels filled out nicely to make perfect wheat. We will have about three-fourths as much grain as last year, and those who have wheat will get more money than they got last year. Then wheat was worth one cent a pound or \$1 a hundred, now it is worth all the way from \$1.45 to \$1.60. Under those circumstances the wheat will find immediate shipment. Barley is likely to be stored awhile for shipment in the fall."

**PRICE FOR RAISINS IN SWEAT.**—*Republican*: At a meeting of the directors of the recently organized Producers' Raisin Packing Co., there was action fixed a rate to be paid to members for their raisins in sweat boxes. After a careful consideration of the subject it was resolved to fix the price at five cents, which, it is thought, will be the prevailing price this season.

### Lassen.

**CROP AND FAIR NOTES.**—*Editors Press*: While the season is backward in this portion of the State, crops, nevertheless, look well. We are getting more than the usual number of sprig showers for this season of the year. The grain, hay and fruit crops promise, at this time, to be over an average. Present indications show that we will have a big crop of apples—and by the way, Lassen county apples have a State reputation—which, together with our large and delicious peaches, pears, neotarlues, apricots, plums, etc., will make a good showing at our coming District Fair (the 34th district), which will be held on the first Monday in October at Susanville, the officers of which association are Wm. Brockman, president, and C. E. Emmerson, secretary. We expect and think that the coming 34th District Fair will excel all other district fairs of the State—in the way of agricultural products, fruits and stock exhibits.—*H., Susanville, June 22.*

### Los Angeles.

**LARGE CROP OF POTATOES.**—*Los Angeles*, June 18: Railroad officials now estimate the potato crop of Southern California at the large total of 22,500 carloads. In the four counties

of Los Angeles, Orange, San Bernardino and San Diego these would net the growers at the present prices about \$3,000,000, but it is doubtful whether all can be marketed.

### Kern.

**FRUIT CROP AND SHIPPING FACILITIES.**—*Bakersfield Echo*: Kern Co. fruit crops, especially the fall shipment, has reached such magnitude as to attract the attention of freight agents of Eastern roads. Within a month two agents of the A. T. & S. F. road have been here soliciting business for that line, which is now equipped with the latest improvements in the way of fruit cars. Conservative estimates of the late peach crop place it at 70 carloads, practically all of which will go East. Nearly everyone who planted vines, one year ago, expects to have enough raisins to pay all the expenses of cultivation and irrigation this year. The Rose-dale Vineyard Co., which has 320 acres of vines, is thinking of erecting a packing-house, and if it does the colonists will have their crops packed there.

**POTATO CONTRACT.**—*Bakersfield Californian*: Alex Mills has contracted for 100 carloads—25,000 sacks—of potatoes for shipment to the East. From all accounts, this is but the beginning, although a large one, of the movement of vegetables eastward, as there will probably be at least 8000 tons of potatoes of the very best quality raised here this year.

### Orange.

**HOW TO PAY FOR A PLACE.**—*Anahelm Gazette*: A year ago H. L. Brewster purchased for his wife 60 acres of land in the tract which is now the 900 acre walnut grove south of town. This week he visited the tract and was greatly surprised. A year ago he saw a tract of land covered with mustard and other weeds. Now he finds a walnut grove of trees ten feet high, and a potato crop between the trees that will come near paying the purchase price of the land. Potatoes are being dug on the entire tract at the rate of six carloads daily. While the gatherer is sowing up one sack, he may gather up another sack directly in front of him. The land is literally covered with potatoes.

### San Luis Obispo.

**LARGE CROP ASSURED.**—*San Miguel Courier*: The farmer generally has reason to feel jubilant over the prospects of a bountiful yield. The Farmers' Alliance mill to be erected at this place will afford him opportunities that he has never before enjoyed. There will be thousands of cents more of wheat and other grains produced in this valley this year than ever was in any previous year, and the quality of the grain is as good as can be produced anywhere.

### Santa Cruz.

**PAJARO VALLEY CROPS.**—*H. B. Robinson in Rualter*: In Pajaro valley proper, that is, within a circle commencing at Vega Station and running close to the eastern foothills, along Elkhorn slough to Moss Landing, thence north-west along the coast to Camp Goodall, thence north to Watsonville, five miles, northwest around and including Green valley, thence east along Gilroy foothills to point of commencement, there has been about 30,000 acres sown to grain, of which 15,000 acres are in wheat, about 8000 in barley, about 4000 or 5000 in oats, and about from 2000 to 3000 acres will probably be out for hay. The above figures were given me by the best posted and oldest resident grain-buyer in Watsonville, who also told me that not over 600 or 700 acres in the valley have been planted to potatoes, and not over 600 acres to sugar beets this year. The crops on Spreckels' Aptos ranch, thence to Sequel (four miles) and to Santa Cruz (four miles), are all above the average. The acreage sown to wheat, barley and oats are about equal.

### Shasta.

**GRAIN CROP.**—*Anderson Enterprise*, June 18: Harvesting grain will begin in some fields in about a week, and the crop all round promises the best of any ever out, the late rains and cool weather being just the thing for plumpness and preventing shrinkage.

### Tulare.

**DISEASED GRAPEVINES.**—*Hanford Journal*, June 16: N. W. Motheral brought several bunches of green grapes which had been attacked by mildew. They were picked from vines in his own vineyard, some eight years old, and he says that the young ones have suffered worse than the old. He states that he is not positive whether it is the Collet, a French name for what is known as Powdery mildew in America, or whether it is some other fungus. His vines have been heavily sulphured this spring, but it seems to have no effect in getting away with the disease, as nearly all his vines, young or old, are affected by it. On the bunches of grapes shown us, half the grapes were gone, and Mr. Motheral stated that on some of the stems not a single grape had set. Mr. Motheral states that the disease makes its appearance first on the leaf of the vine, forming a white ring round the edge of the leaf; afterward it attacks the flower when it is in bloom, preventing the fruit from setting. He thought that a solution of sulphate of copper (blue-stone), if applied to the vine early in the season, would in a measure check the disease.

**GOSHEN CROPS.**—*Visalia Times*, June 18: A Times reporter visited the Kelsey ranch, three miles west of Visalia, and was astonished at the wonderful growth made by vines planted 14 months ago. The Thompson seedless variety has the appearance of four-year-old vines

and are loaded with grapes. Mr. Kelsey has something over 100 acres in Muscat vines, now 14 months old, that cannot be surpassed in the State. The orchards of the Hayes brothers, farther west, are object lessons to strangers, and from this time forward it will be only necessary to show visitors their places to convince them that Tulare county is the greatest fruit county in the State. The trees look healthy and are making a fine growth. Not a weed can be seen, and two-year-old peach and apricot trees are loaded with fruit. At Peter Malloch's place, in addition to vines and trees such as were observed at the places mentioned above, we saw a dozen olive trees of the Mission variety, three years old, some of which had considerable fruit on them. The trees are about ten feet in height, and are making a rapid growth. The next place visited was the Ourtles ranch, southwest of Goshen, which was recently sold to German American Investment Association, and by them resold in small tracts to people in Minnesota. The tract comprises 1360 acres and has probably the best wheat and barley crop on it of any place in the county. The grain stands nearly six feet high and will yield 35 bushels to the acre.

### Yolo.

**HOW HE GOT HIS LARGE CROP OF PEARS.**—*Winters Express*: A. B. Ish has a fine crop of Bartlett pears this season, which he attributes to his manner of spraying. He used a half-pound of Paris green, five barrels of home-made soap in 109 gallons of water. He also tried the solution a second and third time, making it a little stronger each time, and found that the weaker solution was as efficacious so far as destroying the slugs were concerned, as the stronger, and that it did not injure the fruit. Try the formula given and see if Mr. Ish's theory is not correct.

### Yuba.

**FRUIT CONTRACTS.**—*Marysville Democrat*, June 20: The Sutter cannery resumed operations Thursday on the Royal, Peach and Early Golden variety of apricots. There are over 800 tons of fruit contracted for in this county, which comprises a whole or a part of all the principal orchards here. This will insure a fair run for the season. A drier will be run this summer to handle fruit which is over-ripe for cannelling. Bleachers, trays, etc., are being made for this department. With the starting of the cannery, trade will be revived here to some extent, especially among the stores.

**GRAIN CROP.**—*Wheatland Four Corners*, June 20: Heading will be general next week. Many farmers have been working on their barley this week. The crop gives signs of being extra fine all around, the kernels being plump and the stand above the average. Near Nicolau and along the Feather and Bear rivers south of Wheatland, extraordinary yields are expected. The price of grain does not vary to speak of. Several farmers have contracted for 1½, which is considered a good price by the majority.

**HOP CROP.**—*Four Corners*, June 20: The Bear river hops are looking extra fine. The cool weather, with occasional rains, has aided the yards to make a fine, heavy growth. Although it has put the maturity of hops back several days, the yards, we predict, will make an astonishing yield this season.

**FRUIT SHIPMENTS.**—*Marysville Democrat*, June 17: Mr. French, the representative of Earl Fruit Co., says that the second through car load will leave for Chicago tomorrow, and the latter part of next week a car of Bartlett pears will leave here. The practice of shipping cars direct from here is new, and is meeting with much favor. Mr. French thinks that the canneries that bought fruit early in the season are fortunate, as the prices will be considerably higher. Very little fruit is raised in the East this summer, and the demand for California fruit will, he thinks, be as great as last year. The demand for good apricots in the East is unusually good. Only inferior grades have been shipped so far, and the three carloads which he will ship within the next week will be the first good apricots sent East this season. Other growers and fruit-dealers have shipped large quantities to various places. Several carloads of potatoes have also gone East, and yesterday a carload of onions were sent to New York.

### Ventura.

**VENTURA-GROWN OPIUM.**—*Free Press*: In the yard surrounding the county hospital, Dr. Marks has a collection of poppies under cultivation. He has been experimenting with them as to their opium producing qualities, and has become convinced that as an industry, it will pay to raise them for that purpose. He has quite a lot of opium extracted, and is watching the matter with interest. The manner in which the opium is extracted is to either prick the bulb just after the leaves fall off or to cut them off entirely. The juice which exudes and runs down the stalk and forms into little lumps is the crude opium.

### ARIZONA.

**MESA FRUITS.**—*Tempe News*: While the raisin grape is a partial failure, the product of stone fruit will in all probability be very large. The yield of the plum tree is most abundant and of an excellent quality. The apricot yield was never so abundant, both early and late. While the apricot is abundant, the peach, of every name and variety, seems to have surpassed it in producing, the trees being literally

hending beneath the weight of swelling fruit. We hope that no mishap may destroy the fair prospect for an abundant yield of superior fruit.

### NEVADA.

**RAISING SNOW PLANTS.**—*Truckee Republican*: For years, S. P. Johnson has been endeavoring to propagate snow plants. He succeeded in raising a large bed of them in Plumas last year, but being away from the lines of commerce, he found no profit in the undertaking. This year he came to Truckee, and after hunting around, found a desirable location about 3½ miles from town. As soon as the snow was off the ground, he prepared about an acre of rich soil and started a snow-plant bed. The red tips of the plants are now pushing themselves through the ground, and in another week he will commence supplying the market. He has orders from San Francisco florists to take all of this year's crop at good figures. The plant is an eatable vegetable, resembling, but surpassing the cauliflower in tenderness and flavor. When they have no value as flowers, they will be worth considerable as vegetables, and will be in demand by all epicures.

**LARGE BAND OF ANGORA GOATS.**—*Central Nevada*: C. P. Bailey is soon to start a band of 3000 Angora goats on route to his Angora goat ranch, 20 miles south of Battle Mountain. Although Mr. Bailey has ample grazing lands in California, he has made this change because the Nevada flock are heavier wool producers and show a greater per cent of increase.

How well we remember Grandmother's attic, so fragrant with medicinal roots and herbs! Poor old soul, how precious they seemed to her! And yet, one bottle of Ayer's Sarsaparilla would do more good than her whole collection of "varbs."

## BAGGAGE NOTICE.

Don't give up your BAGGAGE CHECKS to Transient Agents on the Trains or Steamers and you will save 15 CENTS on the delivery of each Trunk by handing them to our Agents, who will meet all Trains and Steamers at the Ferry Landings or Depots in San Francisco ONLY.

### OUR RATES:

One Trunk..... 35 Cents  
Three Trunks..... \$1.00

### MORTON SPECIAL DELIVERY,

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## Farmers Attention.

The Mercantile Agency and Investment Co., No. 16 Post St., S. F., has \$3,000,000 to loan on ranch property in sums of from \$5000 up. You can also renew old loans at a reduced rate of interest by corresponding with the Secretary, stating all particulars. The following well-known business men are officers of the company: Will E. Fisher, Pres.; Eugene G. Davis, Vice-Pres.; Wm. S. Tevis, Treas.; Alfred D. Hall, Sec'y.

FOR COMFORT take the Union Pacific Railway. THROUGH PULLMAN PALACE SLEEPING CARS, San Francisco to Chicago WITHOUT CHANGES, WITH DINING CARS THE ENTIRE DISTANCE. Tourist excursions leave every Tuesday and Saturday, with through Pullman Tourist Sleeping Cars to Chicago without change. Reclining Chair Cars are also run on excursion trains. Passengers going via the Union Pacific Railway arrive in Chicago 22 HOURS IN ADVANCE of all trans-Continental lines. D. W. Hitchcock, General Agent, No. 1 Montgomery St., San Francisco.

# Carts! Buggies! Wagons!

ALL KINDS, ALL STYLES,

GOOD QUALITY,

CHEAP AS ANYBODY.

BAKER & HAMILTON



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A FIRST-CLASS PRIVATE SCHOOL UNDER THE ownership and direction of DR. S. H. WILLIAMS, aided by a corps of 12 experienced teachers. Numbers limited; home care; instruction the choicest; music a specialty. Only a few vacancies; apply soon. Term begins August 3d. Send for circulars.

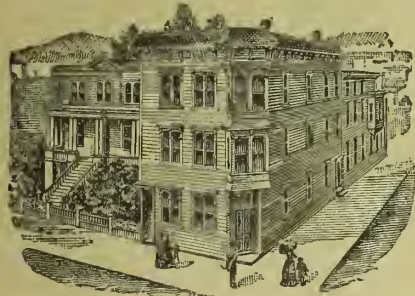
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Assaying of Ores, \$25; Bullion and Chlorination Assay,  
\$25; Blowpipe Assay, \$10. Full Course of Assaying, \$50.  
ESTABLISHED 1864. Send for Circular.

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WRITE FOR PRICES OF THE SPLENDID SCARLET Cactus Dahlia "Juarez," White Cactus Dahlia "Constance," Double Dahlias, Yellow, and Red Caneas Ehemaei and Fontani; also, Best French Cannas. Plants grown by contract from the finest collection in the State. Send for Bulb and Seed Trade List. THEODOSIA B. SHEPHERD, Ventura, Cal.

SEED!! SEED!!  
ORANGES.

THE FIRST ARRIVAL THIS SEASON OF TAHITI Oranges just arrived ex "Courtney Ford" Those desirous of Choice Tahiti Orange Seed can obtain same from this cargo by communicating with the importers, L. G. SREOVICH & CO., San Francisco.

"DEAD LOCK" GOPHER TRAPS are best. Price 25c apiece or \$3 per doz. delivered. L. F. WHITE & SON, Pomona, Cal.

BEST  
TIMBER.

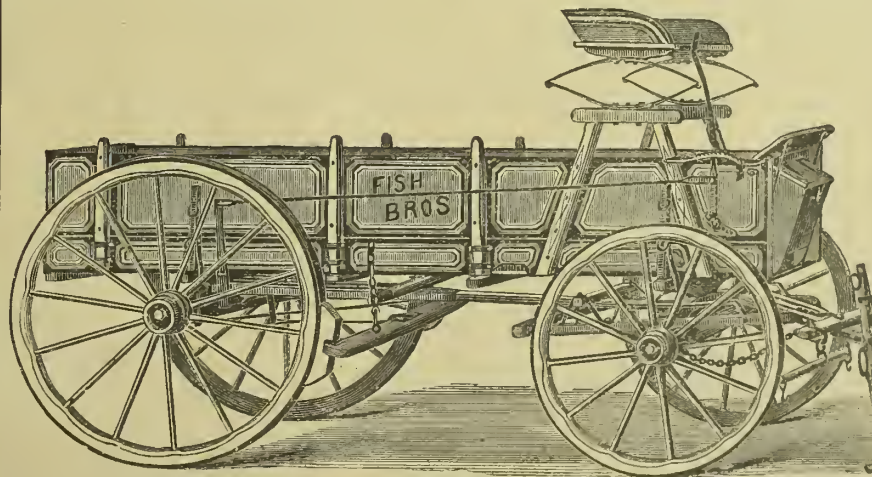
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THOROUGHLY  
RELIABLE  
IN EVERY WAY.

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WELL  
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STYLES AND SIZES SUITABLE FOR EVERY PURPOSE.

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## CARBOLINEUM AVENARIUS.

[REGISTERED.]

Preservative Against Rotting, Decay, Fungus, Etc., of Wood & Stone.  
REMEDY AGAINST DAMP WALLS. PROOF AGAINST TEREDOES.

WHAT WE GUARANTEE CARBOLINEUM AVENARIUS TO DO:

1. To preserve any kind of Wood above or under ground of water, and prolong its life at least one hundred per cent.
2. To prevent moisture from penetrating into brick or stone walls and preserve them same as wood.
3. To keep off all sorts of Insects, Vermin, or other enemies of wood or objectionable and destructive agencies.
4. To prevent Rats and Mice gnawing wood coated with Carbolineum Avenarius.
5. To disinfect barns, stables or residences and destroy Microbes.
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8. To prevent Rope treated with Carbolineum from rotting, causing it to remain pliable and excellent for Coasting.
9. IMPORTANT!—Teredoes will not attack Timber coated with Carbolineum Avenarius.
10. It does not contain any acids or other poisonous ingredients injurious to fibers of wood.
11. It is the cheapest and best Wood Preserver in the World.

All the above statements are facts, and all our testimonials to that effect are genuine and indisputable.

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ARRANGED FOR BOTH SUN AND ARTIFICIAL heat. An original design, better than anything in the market. On rollers, so that the whole structure can be easily turned, any side to the sun. Built with a view to taking it to pieces for packing and shipment. Price only \$100. Apply to JOSEPH H. DUKEY, 527 Commercial St., San Francisco.

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HIGHLY CONCENTRATED.  
STRICTLY PURE.  
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Prepared in the Purest Vegetable Oil.Endorsed by the Highest Dairy Authorities  
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Leading S. F. Merchants are unable to detect the use of this color and our customers using it are credited with shipping to market the finest natural color brands. BEING STRONGER, THEY ARE CHEAPER THAN OTHERS and impart a most powerful natural color. In liquid form it is easy to apply, is always uniform and saves the trouble and expense of preparing one's own coloring. Sample bottle free to all who call.

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RENNET EXTRACT.

Contains nothing artificial but is entirely PURE EXTRACT OF CALF RENNET

Uniform, Clean and Perfectly Preserved. Much more reliable and economical than preparing rennets at the dairy and also cheapest in the end.

We also make a specialty of BEST SELECTED BAVARIAN RENNETS. Strictly fresh stock always on hand.

Write for circulars and prices. G. G. WICKSON & CO.,  
3 & 5 Front St., San Francisco.  
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141 Front St., Portland, Or.

The German Savings and Loan Society,  
526 California Street.

## DIVIDEND NOTICE.

For the half-year ending June 30, 1891, a dividend has been declared at the rate of five and four-tenths (5 4/10) per cent per annum on time deposits, and four and one-half (4 1/2) per cent per annum on ordinary deposits, payable on and after Wednesday, July 1, 1891.

GEO. TOURNEY, Secretary.

## Ditching Machine for Sale.

If any farmer in Russian river or Santa Rosa valley desires a DITCHING MACHINE at a very low price let him address S. E. G., P. O. box 2817, San Francisco.



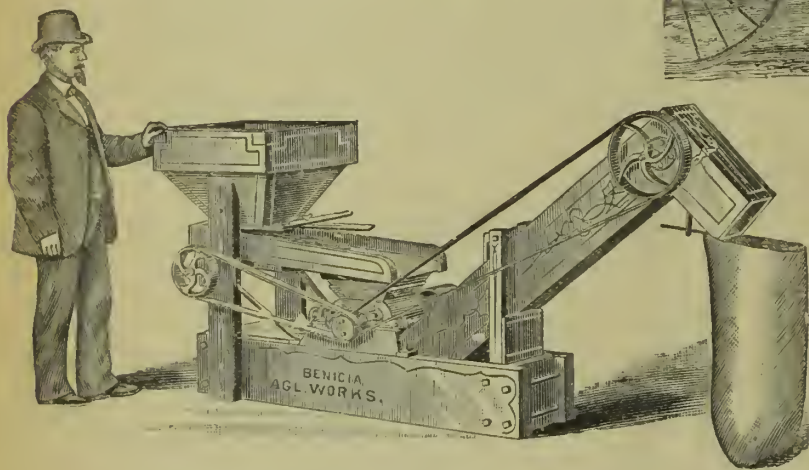
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FOUR SIZES, WITH A CAPACITY OF  
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Small Ones for Small Farms.  
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No Better Ones Made.  
Save their Cost in One Year.

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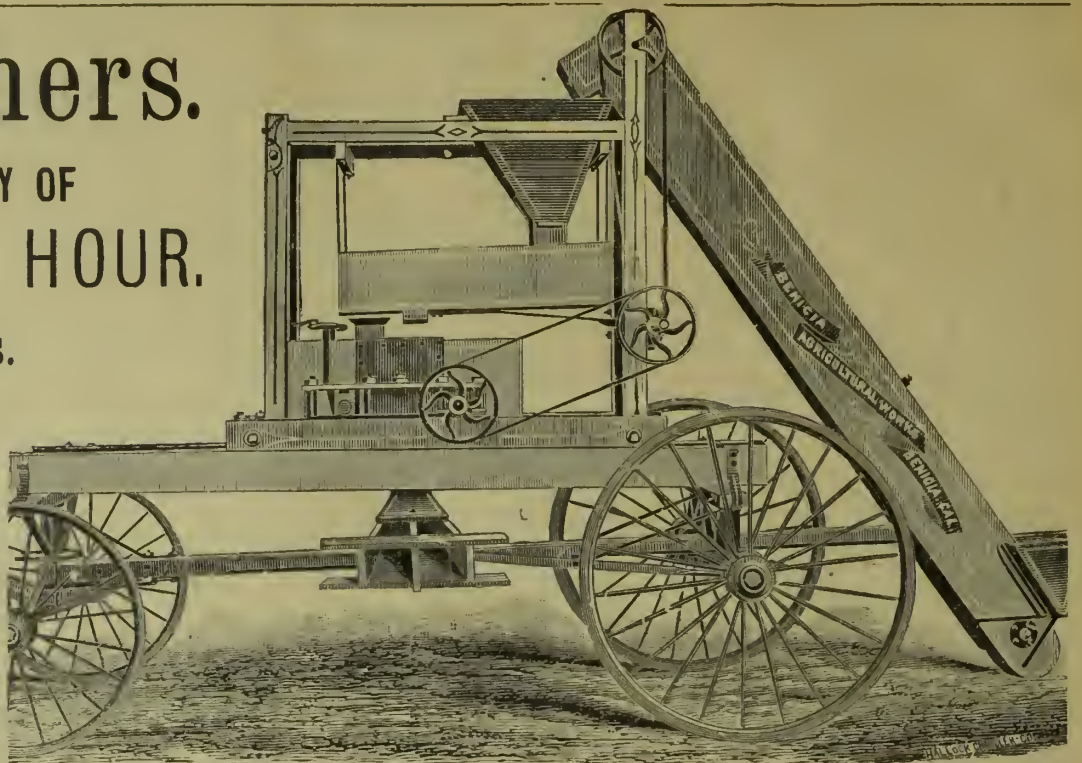


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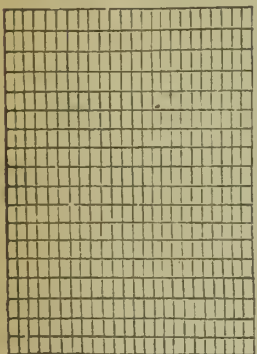
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DO YOU RAISE  
Hay, Grain, Vegetables or Fruits?

We have the Latest Improved  
Implements.  
Nobody has So Many.  
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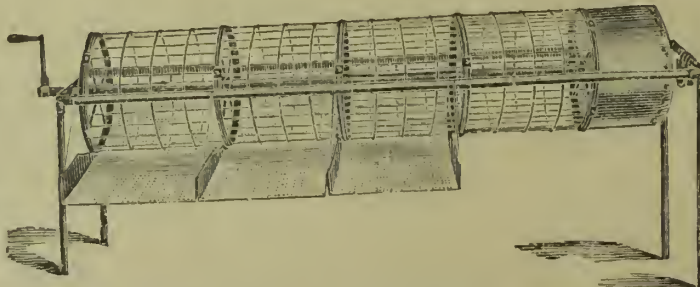
## SPECIAL POINTER TO FRUIT GROWERS!

WIRE WORK OF ALL KINDS.



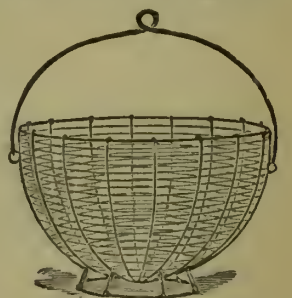
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Window Guards,  
Wrought Iron Fencing,  
Bank, Store and Office  
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Ornamental Wire Work,  
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Baskets,  
And Prune Screens.



FOR GRADING ORANGES, PRUNES, OLIVES,  
WALNUTS, PICKLES, ETC.  
Will Grade Green or Dried Fruit Equally Well.

TUSTIN, Sep. 17, 1890.—Mr. D. D. WASS, San Francisco.—Dear Sir: The Grader arrived the 3d inst., and I had no trouble in putting it up and operating it. It worked like a charm, and I could easily grade five tons of fruit a day. I have finished and shipped my crop. I wish you would now explain the attachments or screws for grading oranges. If they grade oranges as nicely as prunes, I want them. Please describe them and state the price. Yours, etc., J. H. CREW.



DIPPING BASKET.

### THE CYLINDER GRADER

Has Proven the most Rapid Working Machine that has ever been introduced. Its capacity is practically unlimited, as it will grade the fruit as fast as it can be fed into the machine.

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## REGAN VAPOR ENGINE.

NO BOILER. FIRE. EXPLOSION. STEAM,  
ASHES OR ENGINEER.

Started Instantly Without Even a Match. Will Run on Natural or Manufactured Gas or Gasoline. The Moment Engine Ceases to Run, all Expense Stops. Upright and Horizontal, Stationary and Marine Engines from 3-4 Horse Power, Upward.

Our Engines are especially adapted for Pumping and Irrigating and Spraying Fruit Trees; in fact, for any use where power is required.

OVER 400 IN USE.

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San Francisco, Feb. 25th, 1890.

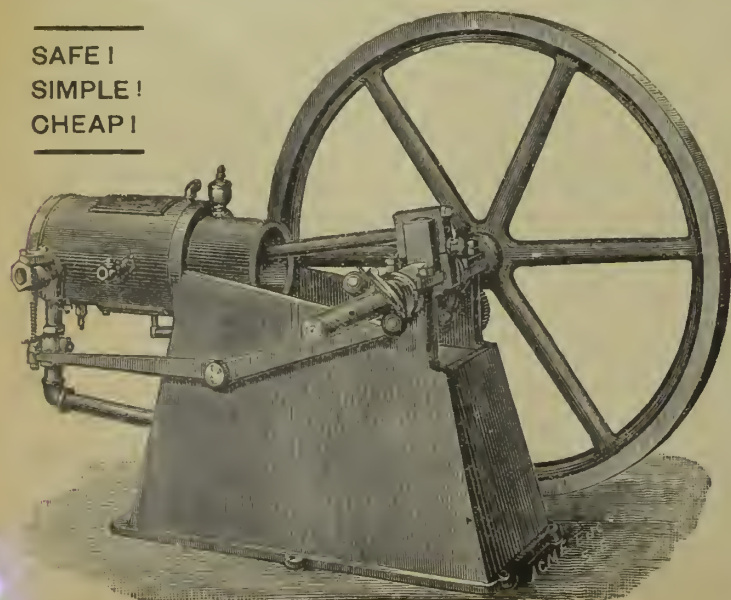
REGAN VAPOR ENGINE Co.—Gentlemen: The 4 H. P. Vapor Engine I bought of you last May has been in constant use ever since, and has given me entire satisfaction. I have found the engine to be all that you claimed for it, and more too. You can use my name for reference if you so desire. I am, yours truly,  
H. TALBOT.

We Carry Thos. Kane & Co's Famous Racine Launches, fitted with our New Compound Engines.

Send for Circular.

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221-223 First Street San Francisco, Cal.





## List of U. S. Patents for Pacific Coast Inventors.

Reported by Dewey &amp; Co., Pioneer Patent Solicitors for Pacific Coast.

FOR WEEK ENDING JUNE 16, 1891.

- 454,195.—VENTILATOR—P. Abrahamson, S. F.  
 454,195.—TAG AND PARCEL TYER—W. H. Anderson, Riverside, Cal.  
 454,199.—RIVETING MACHINE—M. Arnold, S. F.  
 454,202.—SAFETY GUARD FOR SLEEPING CARS—Nathan Brown, Oakland, Cal.  
 454,206.—STEAM GANG-PLOW—N. L. Darling, Benecia, Cal.  
 454,033.—BURGLAR ALARM—C. C. Davis, Los Angeles, Cal.  
 454,340.—FILTER—J. A. Fulton, Astoria, Or.  
 454,213.—AXLE-SETTING MACHINE—G. W. Hunter, Fresno, Cal.  
 454,218.—GOVERNOR—J. F. Kirby, S. F.  
 454,219.—WRENCH—H. H. Love, Sacramento, Cal.  
 454,220.—RULING PEN—H. H. Love, Sacramento, Cal.  
 454,221.—WRITING PEN ATTACHMENT—David Lubin, Sacramento, Cal.  
 454,180.—PUMP—W. McLennan, Port Angeles, Wash.  
 454,225.—HARVESTER—J. & W. Paterson, Stockton, Cal.  
 454,226.—WALL FIXTURE FOR ELECTRICAL CONDUCTORS—Pieper & Watson, San Jose, Cal.  
 454,228.—ROCK DRILL—E. A. Rix, S. F.  
 454,230.—THRASHER—E. F. Sanford, Merced, Cal.  
 454,235.—CABLE RAILWAY GRIP—J. C. H. Stut, S. F.  
 454,238.—ELECTRIC POLE IN GAS OR VAPOR EXPLOSIVE ENGINES—Tremper & Eisenbuth, S. F.

The following brief list, by telegraph, for June 10 will appear more complete upon receipt of mail advices:

California—Ulrich Bachmann, San Francisco, fermenting vat; Willis G. Dodd, San Francisco, water-wheel bucket; Carl A. Erlanson, San Francisco, saw setting and filing machine; Henry P. Holland, assignor to J. A. Fisher, San Francisco, wave-power motor; Louis M. Howe, Greenwood and L. A. Gates, assignors to H. J. Postel, San Francisco, apparatus for extracting gold and silver from ores; Frederick Lampert, San Francisco, assignor of one-half to A. J. Leake, Tacoma, Wash., coating for piles, etc.; Benjamin Marshall, assignor to Marshall Improved Window Furniture Company, San Francisco, sash balance; Walter N. Sherman, Merced, electrical pessary. Washington—George Brown, Walburg, pump. Arizona—Dudley I. Craig, Silver King, adding machine.

NOTE.—Copies of U. S. and Foreign patents furnished by Dewey & Co., in the shortest time possible (by mail or telegraphic order). American and Foreign patents obtained, and general patent business for Pacific Coast Inventors transacted with perfect security, at reasonable rates, and in the shortest possible time.

## The Alameda County Farmers' Institute.

The first meeting of the committee to arrange for a Farmers' Institute in Alameda county was held in the Arlington hotel at Niles, June 13th. There were present representatives of the farmers who belong to the Grange and to the Alliance, and also representatives from the farmers in general who belong to no organization at all. The following were present: A. T. Dewey of Oakland, W. C. Blackwood, Mrs. Munson of Haywards, H. P. Valpey of Warm Springs, and Jas. Shinn and J. C. Shinn of Niles.

Prof. Wikson of Berkeley, who was delegated by the Board of Regents of the State University to attend this meeting and assist in the good work, was present.

A. T. Dewey was elected President of this committee and J. C. Shinn Secretary, and Howard Overaker Jr. was seated as a member in place of an absent member.

It was decided to hold the first meeting of the Farmers' Institute in Haywards on August 7th and 8th, and W. C. Blackwood and Mr. Munson were appointed a committee to attend to obtaining a hall for the days mentioned.

The Committee on Program is A. T. Dewey, J. C. Shinn and H. Overaker Jr.

The following were appointed a committee of arrangements to promote the undertaking in all desirable directions. H. P. Valpey, H. W. Meek, I. B. Haines, J. C. Whipple, T. B. Downing, W. Renwick, L. E. Osgood, A. B. Montrose, C. C. Scott.

A good deal of informal talk was then had on program and a great variety of subjects were suggested, the feeling seeming to be that a number of short papers on live subjects connected with farming that would lead to free discussion and talk by those present would be better than a few long papers. The program in full will be announced later.

THE PUBLIC DOMAIN.—It is telegraphed from Washington that Commissioner Carter, the new head of the General Land Office, is accomplishing wonders in the way of issuing land patents, and the settlers on the public domain throughout the great West will before long discover that the new Commissioner, coming as he does from one of the new States, fully understands their wants, and sympathizes with their efforts to get titles to the lands they have entered upon for homesteads. Yesterday there were issued from the General Land Office a total of 736 patents, and the day before there were 2000. This is an unprecedented number for two days, almost as many as were issued during the entire period of the last administration. It is expected at the present rate of progress the General Land Office will speedily catch up with its work.

## Our Agents.

OUR FRIENDS can do much in aid of our paper and the cause of practical knowledge and science, by assisting Agents in their labors of canvassing, by lending their influence and encouraging favors. We intend to send none but worthy men.

GEO. WILSON—Sacramento Co.  
 J. C. HOAG—San Francisco.  
 F. W. KNAPP—Amador Co.  
 G. B. GILL—San Luis Obispo Co.  
 E. L. RICHARDS—Escondido, Cal.  
 FRANK S. CHAPIN—Tulare Co.  
 B. F. BELT—Shasta Co.  
 J. H. P. WILLIAMS—Tulare Co.  
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 J. G. UNDERWOOD—Solano and Yolo Cos.  
 E. H. SCHAEFFLER—Central California.  
 F. B. LOGAN—Arizona.  
 WM. M. HILLARY—Oregon.  
 ARTHUR M. MITCHELL—Oregon.  
 N. M. NEWPORT—Oregon.

HOP LOUSE.—An emergency bulletin, covering the main facts in the life history of the hop plant louse, and the best remedies against its ravages, has just been issued by the U. S. Department of Agriculture. The insect is appearing in alarming numbers in the hop regions of New York, and is causing considerable anxiety to the hop-growers of Oregon and Washington, also. The bulletin may be obtained by applying to the Secretary of Agriculture, Washington, D. C.

## A California Cyclone.

Very different from the howling windstorms of the Middle and Southern States, scattering death and destruction in their paths, are the cyclones of the Pacific Coast. There, dread and terror precede their approach, and warnings for loss of life and property follow in their wake. Here, their coming is hailed with gladness, both by man and beast, and the thirsty earth as well. In fact, on this coast they are regarded as a good investment by a large number of people, who have full knowledge of their unusual merits from daily experience.

Go where one may, from the British line on the north to the Mexican line on the south, their graceful towers are seen rising from the valleys and standing in bold relief upon the hilltops, while high above, clear and sharp against the blue sky, the single word Cyclone proclaims the thrill and progressive spirit that dwells within their shadows. Noiseless and responsive to every breeze, be it strong or gentle, the great fans revolve around under perfect control and doing the work of many hands in raising water for stock, or irrigating, grinding feed and grain, turning machinery of all kinds, and doing hundreds of useful tasks that busy men require of them.

The truth is, that the Cyclone windmills are in such universal use, and are so well known on the Pacific Coast, so highly appreciated for their lasting and many other good qualities, that little need be said for them, other than to suggest to those who may be in need of cheap and reliable motive power, the wisdom of sending for a catalogue containing illustrations and all particulars, and giving it careful study, comparing the details of their simple construction with that of others, and discovering for themselves the merits and advantages the Cyclone has to offer. The Pacific Mfg. Co., whose extensive works are located at Santa Clara, builds these mills, and they are eminently a home production.

The Pacific Mfg. Co. is composed of men in whom ability, force and enterprise is quickly recognized. Their financial standing is strong while their reputation for promptness and reliability is unsurpassed. In connection with the Cyclone Wind Engine the company carries a line of steam pumps and well-boring tools. The city office and warehouses are at No. 575 Mission St., San Francisco, where applications for catalogues should be sent.

## Petaluma Notes.

A RURAL reporter visited Petaluma and vicinity last week. He reports a great deal of enthusiasm over the coming district fair. The large and varied purses offered for the racing program, and the various breeds from the leading stock-raisers and horsemen of all the different grades of draught, roadsters and thoroughbred horses to be exhibited, has given them high hopes of the coming fair at Petaluma. Several horsemen were up from San Francisco looking at the track, and the string of horses that are being driven for the coming contest. They pronounce the Petaluma track very much improved, and one of the best in the State.

D. M. Worth's wine press manufactory is making preparations to turn out a goodly number of machines, several of which are being built under orders. A hydraulic press was nearly completed, and Mr. Worth has high expectations of its success for large wineries. A fine woodcut with a full description of this hydraulic press will appear in the RURAL soon.

Altogether, in and around Petaluma, there are evidences of thrift. A large number of farmers whom we conversed with say that this has been, prospectively, the best year they have known in ten years.

There has recently been formed a company known as the Sonoma Preserve Co., incorporated by some of the leading citizens. Their

object is to preserve all kinds of fruits, and enter largely into pickling fruits.

Mr. L. C. Byoe, proprietor of the Petaluma Incubator Factory, has had a very prosperous season, and is preparing to enlarge his factory. He informed our reporter that he has now sold 8555 machines since he commenced manufacturing, and the demand for these incubators is increasing monthly.

## Unitarian Literature

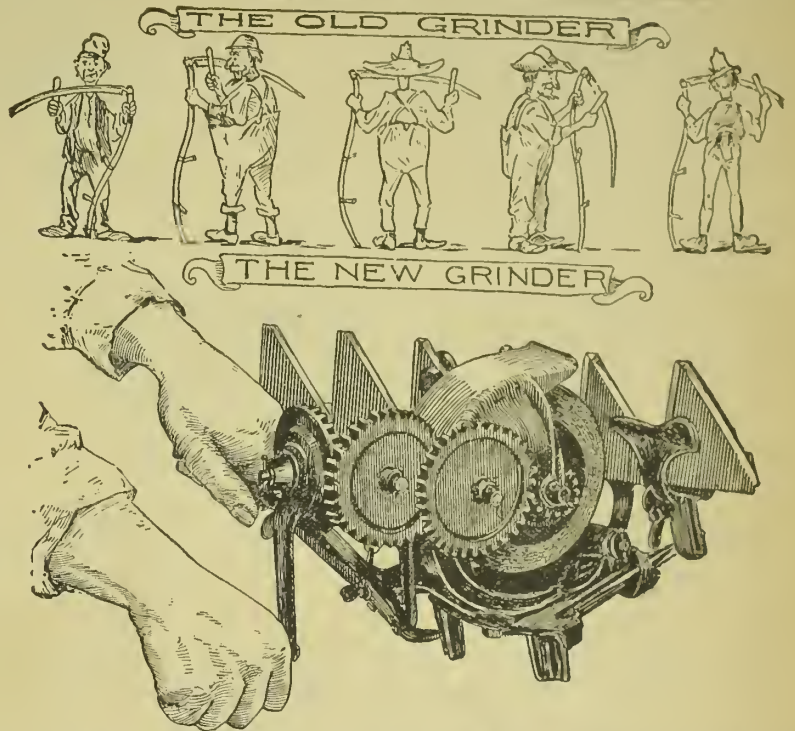
Sent free by the CHANNING AUXILIARY of the First Unitarian Church, cor. Geary and Franklin Sts., San Francisco. Address Mrs. B. F. Giddings as above.

## California Inventors

Should consult DEWEY & CO. AMERICAN AND FOREIGN PATENT SOLICITORS, for obtaining Patents and Caveats. Established in 1850. Their long experience as journalists and large practice as Patent attorneys enables them to offer Pacific Coast Inventors far better service than they can obtain elsewhere. Send for free circulars of information. Office of the MINING AND SCIENTIFIC PRESS and PACIFIC RURAL PRESS No. 220 Market St., San Francisco. Elevator, 12 Front St.

## APIARIAN SUPPLIES.

Italian Queens, \$2.50 each; Black Queens, \$1 each. Swarms from \$2.50 each; Smoker, \$1. Comb Foundation, \$1.25 per pound; V-groove Sections, \$4 per 1000. Comb Honey wholesale and retail; Hives, etc. W. STYAN & SON, The Homebased Apiary, San Mateo, Cal.



## The New Dutton Mower Knife Grinder.

The New Dutton Mower Knife Grinder, made by the Higginum Mfg. Corporation, of which the accompanying cut is an illustration, contains all the valuable features of any of the previous machines made by these well-known manufacturers, and has in addition some important improvements peculiar to itself, some of which are the following:

A "hinge" is substituted in place of a "slide" used on the U. S. Grinder. The hinge is simpler, not liable to wear, and in using it the position of the crank wheel and crank will not be changed. The adjustable spring so connects the knife holder with the hand lever as to cause uniform pressure from the bottom of the top of the section on the wheel while it is being ground. The space for holding water has been enlarged. The gearing has been changed and will turn with greater ease and smoothness. The above, with other minor improvements not here described, enable us to offer the farmer as near a perfect Mower Knife

Grinder as can be made. This new machine has a "Corundum Grinding Wheel" which works perfectly. It wears but little, and it will last, according to the amount of work done, from three to five years, and probably longer.

The grinder is readily clamped to the wheel of any mowing machine, and with it any kind of a mower knife can be ground, whether the sections are long or short.

The gearing is so arranged that while the operator is grinding a knife he stands facing one side of the grinding wheel and over the knife clamp, instead of at the rear, thus bringing the knife section, when ground, directly under his eye.

The knives can be ground several times a day without delaying the work, as it can be done while the team is resting.

"Keep the knives sharp" is what every manufacturer of mowers directs.

It requires but little skill to use this grinder; the directions sent with each machine will, if followed, enable any one to work it without trouble.

The New Dutton Mower Knife Grinder is manufactured by the Higginum Mfg. Corporation of Higginum, Conn.

## INSURE YOUR DWELLING, BARNs and GRAIN

WITH THE

FIREMAN'S FUND

INSURANCE COMPANY

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HONEST LOSSES PAID IN CASH.

THREE MILLION DOLLARS

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IN ORDER TO CLOSE OUT OUR RETAIL CARRIAGE BUSINESS in San Francisco, we will sell our large stock on hand of first-class Carriages, Top Buggies, Phaetons, Four-Spring Wagons, Carts and Harness at Cost. Now is the time if you want to buy a good carriage cheap. Salesrooms, 220 and 222 Mission St., San Francisco, Cal.

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## Breeders' Directory.

Six lines or less in this Directory at 50c per line per month.

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PURE-BRED HOLSTEIN FRIESIAN Cattle for Sale. Bonnie Brae Cattle Co., Hollister, Cal.

JOHN LYNCH, Petaluma, breeder of thoroughbred Shorthorns. Young stock for sale.

IMPORTED STALLIONS.—English Shire, Cleveland Bay, German Coach. Import direct. Write Holbert & Conger, 129 18th St., Los Angeles, Cal.

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P. H. MURPHY, Perkins, Sac. Co., Cal., Importer and Breeder of Shorthorn Cattle and Poland China Hogs.

M. D. HOPKINS, Petaluma, importer and dealer in Eastern registered Shorthorns, Red Polled Cattle, Holsteins, Devons and Shropshire Sheep.

PETER SAXE & SON, Lick House, San Francisco, Cal. Importers and Breeders, for past 21 years, of every variety of Cattle, Horses, Sheep and Hogs.

PERRIN STANTON, Sacramento, Cal., Importer and Breeder of Registered A. J. C. C. Jersey Cattle of the Best Strains. Stock for sale.

J. R. ROSE, Lakeville, Sonoma Co., Cal., breeder of Thoroughbred Devons, Roadsters and Draft Horses.

P. PETERSEN, Siles, Colusa Co., Cal., Importer & Breeder of registered Shorthorn Cattle. Young bulls for sale.

WILD FLOWER STOCK FARM, Fresno Co. A. Hedlron & Bro., Props., Sac. Breeders of thoroughbred strains and Cruikshank Shorthorns; also Registered Herefords; a fine lot of young bulls in each herd for sale.

CHARLES E. HUMBERT, Cloverdale, Cal., Importer and Breeder of Recorded Holstein-Friesian Cattle. Catalogues on application.

PERCHERON HORSES.—Pure bred horses and mares, all ages, and guaranteed breeders, for sale at my ranch near Lakeport, Lake Co., Cal. New catalogue now ready. Wm. B. Collier.

WILLIAM NILES, Los Angeles, Cal. Thoroughbred Registered Holstein and Jersey Cattle. None better.

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OOTATE RANCH BREEDING FARM, Page's Station, S. F. & N. P. R. R. P. O., Penn's Grove, Sonoma Co., Cal. Willard Page, Manager. Breeders of Short Horn Cattle, English Draft Horses, Spanish Merino Sheep and Berkshire Swine.

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K. G. HEAD, Napa, Importer and Breeder of Land and Water Fowls. Send for New Catalogue.

GALT POULTRY YARDS, Galt, Sac. Co., Cal. Pure bred Ducks, Pekin Ducks, Belgian Hares, etc.

MADISON H. ORITCHER, Bonnie Doon, Santa Cruz Co., Cal. Thoroughbred Poultry. Settings, \$3.

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IF YOU KEEP ANY KIND OF FOWLS, Pet Stock, Dogs, etc., it will pay you to send your address at once to C. R. Harker, Santa Clara, Cal. You cannot afford not to do it. It will cost you but one cent and you will receive something worth ten times that.

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L. U. SHIPPEE, Stockton, Cal., importer and breeder of Spanish Merino Sheep, Durham Cattle, Jacks and Jennys & Berkshire Swine. High graded rams for sale.

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J. B. HOYT, Bird's Landing, Cal., Importer and Breeder of Shropshire Sheep; also breeds Cross-bred Merino and Shropshire Sheep. Rams for sale.

E. W. WOOLSEY & SON, Fulton, Cal., importers & breeders Spanish Merino Sheep; ewes & rams for sale.

R. H. ORANE, Petaluma, Cal., breeder and importer, South Down Sheep from Illinois and England for sale.

ANDREW SMITH, Redwood City, Cal.; see adv't.

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WILLIAM NILES, Los Angeles, Cal. Thoroughbred Poland-China and Berkshire Pigs. Circulars free.

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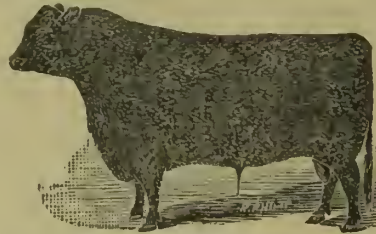


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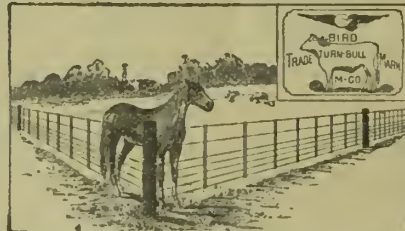
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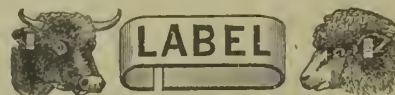
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Horse Liniment

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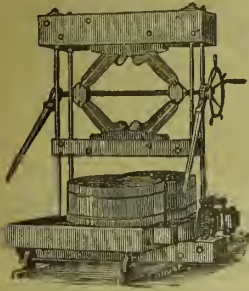
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Using two haskets so that while one is under the press the other can be emptied and filled ready to move under the press as soon as the first hasket is pressed. First Premium awarded at all fairs wherever exhibited. Parties desiring a press combining Power, Speed and ease to Handle, can see them at the leading wineries on the Pacific Coast.

The following extracts from well known wine-makers are quotations from letters received by us:

"I have been using two of your presses, a small one and the large sized one. They have given perfect satisfaction."—J. L. BEARD, Warm Springs.

"The cider press I purchased of you for the Rancho Chico Fruit Co. has given entire satisfaction and has fulfilled all the promises made for it."—JOHN BIDWELL.

"We very cheerfully recommend your wine press and shall continue using it, as it is every way satisfactory."—VAN ALLEN PACKING CO., Healdsburg.

"Allow me to state that as far as we have gone with it, it has given us complete satisfaction."—MRS. A. P. FURNISS, Per A. F. Cushing, Jr.

"I consider your press superior to all others I have seen. They are powerful, and easily and speedily operated."—H. L. GORDON, San Jose.

"The wine press bought of you proves satisfactory."—C. WELLS, Warm Springs.

Also Worth's Improved Grape Elevators, Improved Continuous Pressure Hydraulic Presses, Worth's Patent Power Grape Stemmer and Crusher, Worth's Patent Ho se Power, and all kinds of machinery for wine-makers. The Large Toggle Lever and Screw Press is capable of a pressure of 266 tons or 300 pounds to the square inch, the small press has 36 tons or 140 pounds to the square inch.

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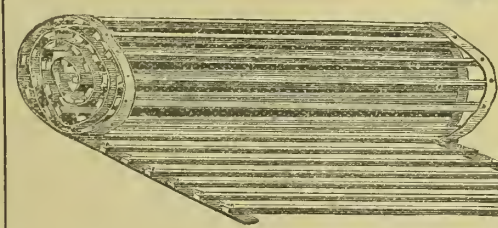
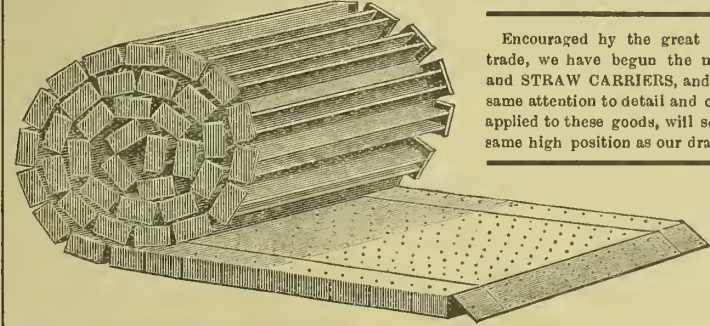
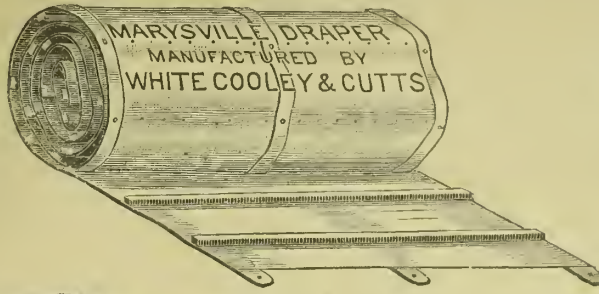
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—IS—  
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LOW PRICE  
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NO TEST OF  
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FOR SALE BY THE  
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## S. F. MARKET REPORT

## Market Review.

## DOMESTIC PRODUCE, ETC.

SAN FRANCISCO, June 24, 1891.

Harvest returns coming in are generally of a more favorable character than heretofore claimed they would be. The berry averages plumper, while there are more to the head. The yield to the acre will average about 25 per cent more than it did in 1890. Many farmers have contracted their new crop wheat at \$1.50 per cental delivered in this city, which is about \$5 a ton higher than were contracting prices in this month, 1890. The fruit season is well under way. The crop is being marketed at good prices. Farmers, taken as a whole, have very little cause for complaint. The money market is reported fairly easy. Large sums of money are under engagement for crop-moving purposes. The Eastern and European markets for wheat have fluctuated to lower prices. The following is to-day's cablegram:

LIVERPOOL, June 17.—Wheat—Rather easier. California spot lots, 8s 2½d; off coast, 43s 6d; just shipped, 43s 6d; nearly due, 43s; cargoes off coast, inactive; on passage slow; Mark Lane wheat, very quiet; French country markets, slow.

## Liverpool Wheat Market.

The following are the closing prices paid for wheat options per cwt. for the past week:

	June.	July.	Aug.	Sept.	Oct.	Nov.
Thursday.....	88½d	88½d	88½d	88½d	88½d	88½d
Friday.....	88½d	88½d	88½d	88½d	88½d	88½d
Saturday.....	88½d	88½d	88½d	88½d	88½d	88½d
Sunday.....	88½d	88½d	88½d	88½d	88½d	88½d
Tuesday.....	88½d	88½d	88½d	88½d	88½d	88½d

The following are the prices for California cargoes for off coast, nearly due and prompt shipments for the past week:

	O. C.	P. S.	N. D.	Market.
Thursday.....	44½d	43½d	44½d	Inactive.
Friday.....	44½d	43½d	44½d	Very Inactive.
Saturday.....	44½d	43½d	44½d	Buyers hold off.
Sunday.....	43½d	43½d	43½d	Rather Easier.
Tuesday.....	43½d	43½d	43½d	Inactive.

## Eastern Grain Markets.

The following shows the closing prices of wheat at New York for the past week, per cental:

	Day.	June.	July.	Aug.	Sept.	Dec.	Jan.
Thursday.....	180	174½	166½	165½	163	163	163
Friday.....	180	174½	166½	165½	163	163	163
Saturday.....	181	175½	167½	167½	169	169	169
Sunday.....	181	175½	167½	167½	169	169	169
Tuesday.....	178½	173½	165	164	166½	166½	166½

The closing prices for wheat have been as follows at Chicago for the past week, per cental:

	Day.	June.	July.	Sept.	Dec.
Thursday.....	158	150	152	152	152
Friday.....	157½	151	154	154	154
Saturday.....	158½	151	153	153	153
Sunday.....	158	150	152½	152½	152½
Tuesday.....	159	147½	151	151	151

NEW YORK, June 24.—Wheat—\$1.06½ for June, \$1.03½ for July, 98½c for August, 97½c for September, 99½c for December, and \$1.04 for May.

CHICAGO, June 2.—Wheat—92½c for July, 87½c for September and 89½c for December.

## Visible Supply of Grain.

NEW YORK, June 22.—The visible supply of grain in store and afloat, as compiled by the New York Produce Exchange, is as follows: Wheat, 14,657,000 bushels, a decrease of 944,000 bushels; corn, 4,418,000 bushels, a decrease of 637,000; oats, 4,028,000 bushels, a decrease of 234,000; barley, 125,000 bushels, an increase of 12,000.

## Dried Fruits.

NEW YORK, June 20: Raisins—Three-crown, loose and layers, at \$1.20@1.40; two-crown, 95c. Apricots good at 9½c; prime at 10c. Peaches—Unpeeled at 9@11c. Prunes—Dull. There are sellers of best at 10c; large size prove poor keepers, being puffy and watery. Plums—Pitted quiet at 12c; fancy at \$2.40@5.50.

## Lima Beans.

NEW YORK, June 20.—Unsatisfactory; irregular prices. Large lots have cost too a bag to reclean. Unmerchantable defects should be avoided in new crops. Futures inquired for at 2½c.

## Eastern Wool Markets.

NEW YORK, June 20: There seems more interior inclination to part with wool at softened rates, though the best as a rule keeps up, a policy likely to prolong the selling season. Seaboard markets not stronger. The failure of a Pennsylvania manufacturer makes a cautious feeling.

London—Active stock not of a style likely to come this way; home goods market active for delaines; other fabrics at no better margins. Active dealings at Boston—Sales of 2,400,000, 640,000 of which was foreign, chiefly Australian. Philadelphia is getting more stock, but trade does not rally.

## Hops.

NEW YORK, June 23.—A few samples of really choice hops show holders to all accounts firm at about 30c for that class of goods. Medium and lower grades are offered at somewhat reduced prices, however, without leading to business of any importance. A fair-sized lot of medium quality is said to have been secured at 23c or less in the interior. Reports of the condition of the growing crop in this State are better than those of one week ago. A London cable reports an improvement in the English crop outlook, and business as slow, with a sagging tendency.

## Local Markets.

	Buyer	Buyer	Buyer	Seller
	1891.	1891.	Season.	1891.
Thursday.....	1.181	1.181	1.181	1.181
Friday.....	1.181	1.181	1.181	1.181
Saturday.....	1.181	1.181	1.181	1.181
Sunday.....	1.181	1.181	1.181	1.181
Monday.....	1.181	1.181	1.181	1.181
Tuesday.....	1.181	1.181	1.181	1.181

\*After August.

	Buyer	Buyer	Buyer	Seller
	Season.	Season.	Season.	Season.
Thursday.....	1.181	1.181	1.181	1.181
Friday.....	1.181	1.181	1.181	1.181
Saturday.....	1.181	1.181	1.181	1.181
Sunday.....	1.181	1.181	1.181	1.181
Monday.....	1.181	1.181	1.181	1.181
Tuesday.....	1.181	1.181	1.181	1.181

\*After July. †After August.

BAGS—The market has ruled fairly steady at around 7c for standard-sized hand-sewed.

BARLEY—The spot market has been forced to lower prices by the usual systematized movements when buyers want supplies at lower prices. On Call, trading is light. The following are to-day's reported sales on Call:

Morning Session: Seller 1891—200 tons, \$1.04½; Buyer 1891, after August 1st—100 tons, \$1.11½; 100, \$1.11½ cwt. Afternoon Session: No sales.

BUTTER—The market is weak under accumulating supplies. The East is sending us considerable. It is claimed that more butter will be packed in California this season than ever before.

CHEESE—The market is weak and heavy under free receipts and only a fair demand.

EGGS—The market is overstocked with Eastern, and with more to arrive, prices are against sellers. Warm weather forces consignees to close out consignments.

FLOUR—The market is weak, with the tendency to lower prices.

WHEAT—The spot market is being forced to lower prices. Export buyers are not operating beyond immediate wants, expecting forced sales in next month which will enable them to buy at lower figures. Speculative buyers are waiting further developments in the markets abroad. Favorable weather in England is reported, which causes the market to shade off. The French and German crops are unquestionably short, the former decidedly so. In futures, trading in our market has been light. The following are to-day's reported sales on Call:

Morning Session: Buyer 1891, after August 1st—100 tons, \$1.59½c 500, \$1.59½ cwt. Afternoon Session: Buyer 1891, after August 1st—200 tons, \$1.59½ cwt.

## Market Information.

## Produce Receipts.

Receipts of produce at this port for the week ending June 23, were as follows:

Flour, qr. sks.	137,276	Middlings, sks.	2,200
Wheat, cts.	12,225	Alfalfa,	85
Barley, "	26,558	Chicory, bbls.	85
Rye, "	6,162	Hops, bbls.	10
Oats, "	4,866	Wool, "	2,487
*Corn, "	1,176	Hay, tons.	3,683
do bxs	852	Straw, "	55
do hbls	148,850	Wine, gals.	148,850
do kegs	57	Brandy, "	189
do tubs	135	Honey, cs.	189
do bxs	844	Walnuts, sks.	456
do bxs	37,400	Mustard, "	456
Eggs, doz	5,242	Almonds, "	189
do " Eastern	18,365	Popcorn, "	189
Beans, cts	3,396	Beet sugar, bbls.	189
Potatoes, sks	4,212	do do sks.	189
Onions, "	4,212	do do sks.	189
Bran, "	4,212	do do sks.	189
Buckwheat, "	4,212	do do sks.	189

## Cereals.

The local wheat market has held dull with a slight shading on former quotations. Many claim that after the present month prices will shade off still more. This opinion, no doubt, is grounded on the impression that season 1890-91 contracts expire with July, and all wheat now held against them will be available for export. While this may be the case, yet the fact must not be lost sight of, that there are in port for new crop loading an engaged tonnage of nearly 33,000 tons register, equal to a carrying capacity of about 50,000 tons. This is aside from the engaged tonnage for 1890-91 wheat. This tonnage with the large fleet on the way, will no doubt tend to keep the wheat market fairly strong, unless farmers by free offers force prices down. It may be barely possible that operators will help to maintain prices until after farmers, those who will hold, have borrowed on their grain, and then by a bear raid in futures on Call try and break prices to such figures as to force those who have advanced the money, to call for more margin or else sell the wheat, and in doing the latter the buyers will come in and take everything sold. This has been done before. Farmers in borrowing money ought to allow for sufficient fall in prices—provided a bear raid is made—so they will not be forced to sell at a sacrifice. Grain operators, or at least the most of them, have very little compunction of conscience.

New wheat coming in shows a most excellent grade; better than the average of five years past.

Oregon crop advices report as follows per bulletin issued by the Oregon Weather Bureau June 20th: Western "Fall wheat has lodged to some extent and clover is injured. Weeds have grown rapidly while the ground has been too wet to cultivate. Spring sown crops are generally doing well, though sunshine and warm weather are greatly needed." Eastern Oregon: "The acreage of wheat in Union, Umatilla and Walla Walla counties has been increased 20 per cent and the yield per acre will be equal or greater than last year. In some localities, especially in the west and north of Pendleton and west of Walla Walla the wheat has been burnt some. Some few fields will not be cut. On the foot hills and high lands the wheat was never better. The quality of the wheat will be even better than last year. The output from Eastern Oregon and Washington from present indications will be from one to two million or more bushels than that of last year."

In the sample barley market the same adverse bear influences reported in our last week's issue still prevail. Dealers who are engaged in forcing prices down, make fictitious sales and get the daily press to report the same. When this is done they then take consignments to account, or else sell to another party and divide the profits. All do not do this, but there are enough engaged in such disreputable work as to greatly influence the market against sellers. The crop is turning out splendidly, yet the total output will barely equal our requirements. Oregon and Washington will, as usual, have to contribute toward meeting our wants. Old brewing barley is scarce and wanted.

Oats in sympathy with barley are lower, with dealers taking only for immediate wants. The stock of spot is light, but new will soon be available. The crop in this State will be larger than it was in 1890, but unless the weather in Western Oregon changes for the better, it is claimed that the output north will be short.

The first consignment of corn received for over a year from the Central States, came to hand the past week. Central America is still drawing from us. The crop in this State promises a large increase over that of 1890.

Rye is being inquired for, for export.

## Feedstuff.

Bran and middlings are scarce and high. They will doubtless continue up until the mills are able to start on new crop wheat. Feedmeal is high and slow. The lower prices ruling for rolled and ground barley is turning attention to them.

Notwithstanding the receipts of hay are heavy, the market holds up well. The high cost of ground feed is in favor of hay. Oregon advices are conflicting regarding the crop, but the general tenor is that the output will not be more than in 1890, if that.

## Live-stock.

Bullocks and mutton sheep are slow, the free supply of vegetables and fruits are against fresh meats. From the country an increased call is reported for cured meats—hams, bacon, etc., but this is usually the case in harvest. Hogs are firmer, with a good demand ruling for block hogs. Milch cows are slow, the high price of feed appears to be against them. In horses there is no change to note, outside of a better demand for medium to large-sized draft horses.

The market for dressed cattle is quoted as follows [to obtain the price on foot, take off from the price for stall-fed one-third to one-half, according to the nature of the feed and time fed; and for grass-fed take off the price from 40 to 60 per cent]:

HOGS—On foot, light grain fed, 5½@5¾c lb; dressed, —@—c lb; heavy, 5½@5¾c lb; dressed, —@—c lb. Stock hogs, 4½@4¾c lb.

BEEF—Stall fed, 6½@—c lb; grass fed, extra, 6@—c lb; first quality, 5½@—c lb; second quality 5@—c lb; third quality, 4@—c lb.

VEAL—Small, 6@7½c lb; large, 5@6½c lb.

MUTTON—Wethers, 7½@8c lb; ewes, 7@7½c lb; spring lamb, 7½@9c lb.

## Fruits.

Gooseberries are about out of market. Cherries are going out—the bulk of the crop has been marketed. Oregon advices report heavy damage by rains to the cherry crop. Apricots are in better supply. The peaches coming in are taken by dealers and hucksters; the market is lower. River Astrachan apples, if choice have a ready sale. The market is overstocked with poor stuff. Pears are showing to better advantage, although large quantities of poor are still coming in. Figs are putting in an appearance. Strawberries are steady. Blackberries and raspberries are selling at lower prices. Canners will soon start up on the former.

Oranges are in over supply and hard to place; but this usually obtains when the market is well supplied with deciduous fruits. Lemons and limes have a steady sale.

The market for fresh fruits in the country is quoted as follows for cannery varieties: Peaches, per ton, freestone, \$25@47.50; clingstone, \$37.50@52.50; apricots, \$20@30, with some very choice selling at an advance; plums, \$25@42.50; pears, \$32.50@40. Shippers to the Eastern markets also pay above prices. Driers are paying from \$40 to \$52.50 per ton for prunes—price regulated by size and locality grown.

The market is almost bare of dried fruits. Buyers' attention is being drawn to the incoming crop. The following prices are bid: Bleached apricots, 9½@11c, driers ask 10@12½c. Bleached peaches, 8@9½c, driers ask for higher figures and will not contract at the prices buyers name. For the four sizes of prunes, 6½@7½c is named. Dried grapes are being contracted for at 3@3½c, although buyers name a lower range. Raisins in sweat range from 4c to 5½c according to locality, reputation of curer, etc.

## Vegetables.

Seasonable garden truck continues in good supply. Rhubarb is going out. Peas and beans are in good supply. Tomatoes, cucumbers, summer squash, and green corn are in liberal supply and declining.

Free receipts of onions cause a weak market with some shading in prices. Only well matured good keepers fetch top prices. The receipts of potatoes are heavy, with a lessened home call owing to better local supplies. Shipments overland have assumed still larger proportions, but notwithstanding this the supply for home use will be very heavy. The crop this year is enormous—due largely to many orchardists planting between trees.

In poultry the market continues poorly supplied, with large well-conditioned stock. The large proportion of receipts are more or less scrubby.

Beans are moving off slowly. To force sales, low prices are in order. Liberal supplies of fresh vegetables and favorable prospects for a large crop of beans are against sellers.

## Miscellaneous.

The hop market is in a blissful state of uncertainty, both buyers and sellers appear to be watching crop advices, and hop louse developments. Old hops are virtually out of the market. The growing crop is reported doing well.

The wool market continues sluggish, but all advices tend to warrant the belief that better prices will prevail later on. The greatest drawback to the market is, that the high duties have increased the manufacture of shoddy goods, and this has always been against the wool industry. The high duties on wool are particularly in favor of shoddy manufacturers, for it prevents manufacturers who use wool exclusively from selling their goods except at a loss.

New crop honey is coming in more freely, but, as yet, the supply is light.

At the sale of wool held at Cloverdale, Sonoma Co., the prices realized were not as good as the grade of wool justified. The range of prices paid is reported at 19@21½c, with the bulk sold around 20@20½c.

## Auction Sales of California Fruit.

CHICAGO, June 18.—One carload Royal apricots brought \$1.85@1.90; Alexander peaches, \$1.55@1.75; Royal Anne cherries, fair and small, 85c, fancy, \$1.50; cherry plums, \$1.35@1.50; three carloads Royal apricots brought \$1.90@2.10; seedlings, \$1.70@1.80; peaches, \$1.10@1.25; Koenig Claude plums, \$2.75@3.25; Cherry plums, \$1.45@2.30; Royal Anne cherries, 80c to \$1.75; black cherries, very poor order, 60c to \$1.30; Clyman plums, \$3.25.

CHICAGO, June 19.—Two carloads cherries were in very bad order and sold at 30c@95; apricots, \$1.65@1.95; peaches, \$1.15@1.40; Koenig Claude plums, \$2.75; Cherry plums, \$2; Clyman, \$2.95.

CHICAGO, June 20.—One carload Cherry plums brought \$1.85; Royal apricots, \$1.75@1.90; peaches, \$1.15@1.35.

CHICAGO, June 20.—Two carloads Royal apricots brought \$1.75@1.80; Alexander peaches, \$1.25; Cherry plums, \$1.75@1.80; Tartarian cherries, 90c@1.15; Royal Anne, in fair condition, \$1.20@1.25.

NEW YORK, June 20.—Cherries made a show never equalled here in elegance. There was sold during the week by our firm 3,100 boxes at 55c@1.55. Royal Anne and Black Tartarian made best money; apricots, \$1.25@3.30; Cherry plums, \$1.50@2.80; peaches, few at \$1.75@2.75.

CHICAGO, June 22.—Four carloads apricots brought \$1.20@1.95; peaches, 95c@1.75; Cherry plums, \$1.35@2.05; Clyman, \$2.60@2.85; Black cherries, 65c@1.20. Two carloads sold as follows: Royal apricots brought \$1.70@1.80; Alexander peaches, 95c@1.75; Cherry plums, \$1.35@2.00; Clyman, \$2.60@2.85; Black cherries, 65c@1.20.

CHICAGO, June 23.—Three carloads apricots brought \$1.40@2.25; peaches, 85c@1.35; Clyman plums, \$3.25; Jackson, \$2.60; Black cherries, mostly in bad order, 65c@1.20; Royal Anne \$1.25; Tragedy prunes, \$5.10; Koenig Claude plums, \$3.15. Two carloads sold as follows: Royal apricots brought \$1.45@1.75; Black Tartarian cherries, 90c@1.25; Royal Anne, \$1@1.30; Biggears, 95c@1.15; peaches, \$1.05@1.20; Cherry plums, \$1.75.

## Domestic Produce.

Extra choice in good packages fetch an advance on top quotations, while very poor grades sell less than the lower quotations. WEDNESDAY, June 24, 1891.

BEANS AND PEAS.		NUTS AND JOSEPH.	
Bayo, cts.	2 50 @ 3 25	Walnuts, Cal. D.	7 1/2 @ 9
Butter, "	2 70 @ 3 05	do Obce.	8 @ 9
Pea, "	3 00 @ 3 30	do paper shell	9 @ 9
Red, "	2 60 @ 2 90	do Chilli.	8 @ 9
Pink, "	2 20 @ 2 45	Almonds, hd sh.	— @ —
Small White	2 95 @ 3 10	Softshell	15 @ —
Ultra	2 20 @ 3 00	Paper shell	16 @ —
Flid Pea, hkeys	1 70 @ 2 00	Brazil,	7 1/2 @ —
do green	1 50 @ 2 50	Pecans small	12 @ 14
do Eastern do	2 50 @ 3 00	do large	15 @ 17
do Niles	1 65 @ 1 75	Peanuts	4 @ 5
Split	4 1/2 @ 5 1/2	Filberts	10 @ 11 1/2

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Chico to Extra 100 @ 115 00

Fair to Good .70 00 @ 95 00

Poor .50 00 @ 60 00

## CHICORY.

California .54 @ 6

German .56 @ 6

## DAIRY PRODUCE, ETC.

BUTTER.

Cal. Poor to fair, lb 15 @

do good to choice 17 1/2 @

do Giltedged 21 1/2 @

do Creamery rolls 21 1/2 @

do Eastern 15 @

CHICKENS.

Cal. choice mild 9 @

do fair to good 8 @

do gilt edged 9 1/2 @

Young America 9 @

N. York Eastern 12 @

Western 11 @

Cal. ranch, doz. 21 @



PACIFIC COAST WEATHER FOR THE WEEK.  
(Furnished for publication in this paper by officer in charge of branch Signal office, Division of the Pacific.

DATE.	Olympia.	Portland.	Eureka.	Red Bluff.	Sacramento.	S. Francisco.	Fresno.	Keeler.	Los Angeles.	San Diego.
June 17-June 23	Rain. Temp. Wind. Weather.	Rain. Temp. Wind. Weather.	Rain. Temp. Wind. Weather.	Rain. Temp. Wind. Weather.	Rain. Temp. Wind. Weather.	Rain. Temp. Wind. Weather.	Rain. Temp. Wind. Weather.	Rain. Temp. Wind. Weather.	Rain. Temp. Wind. Weather.	Rain. Temp. Wind. Weather.
W.	.04	.64	.32	.00	.00	.00	.00	.00	.00	.00
T.	.40	.60	.02	.00	.00	.00	.00	.00	.00	.00
F.	.10	.60	.46	.04	.00	.00	.00	.00	.00	.00
S.	.24	.58	.06	.00	.00	.00	.00	.00	.00	.00
S.	.20	.62	.18	.00	.00	.00	.00	.00	.00	.00
M.	.00	.62	.78	.60	.00	.00	.00	.00	.00	.00
T.	.00	.66	.00	.00	.00	.00	.00	.00	.00	.00

EXPLANATION. Cl. for clear; Cy., cloudy; Fr., fair; Cm., calm; - indicates too small to measure. Temperature wind and weather at 5 P. M. (Pacific Standard time) with amount of rainfall in the preceding 24 hours. T indicates trace of rainfall. P C, partly cloudy. Rn., rain. X, missing.

WAKELEE'S

THE BEST  
IS THE  
CHEAPEST.



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AN  
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else.

SQUIRREL AND GOPHER EXTERMINATOR!  
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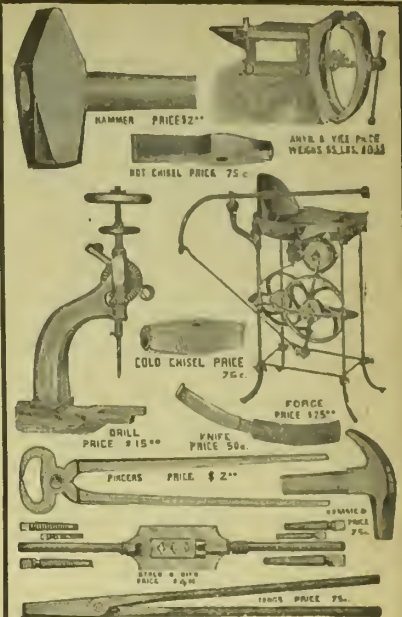
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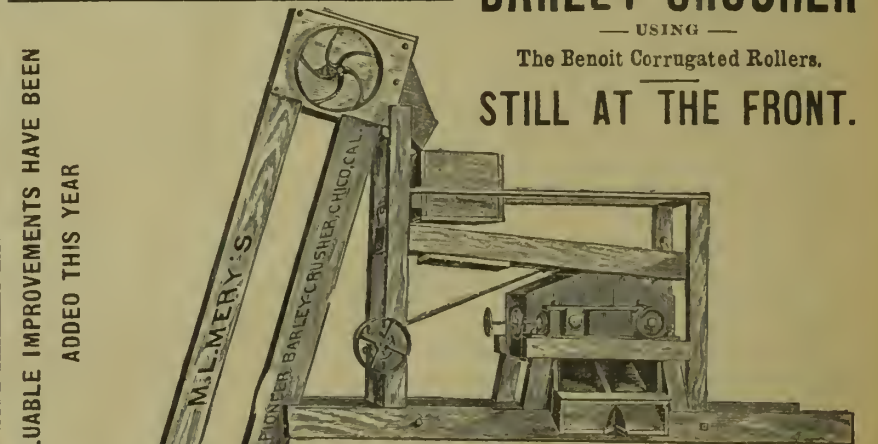
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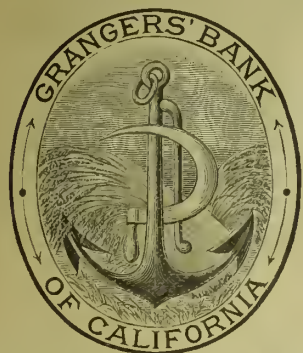
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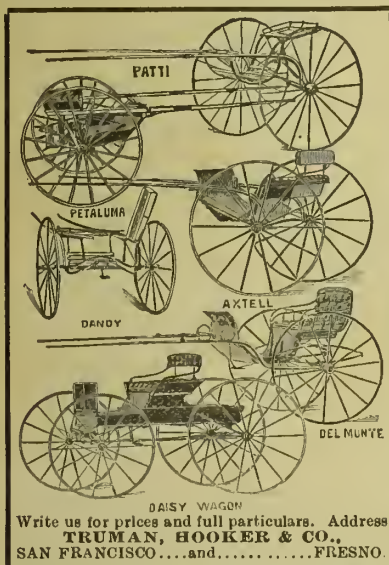


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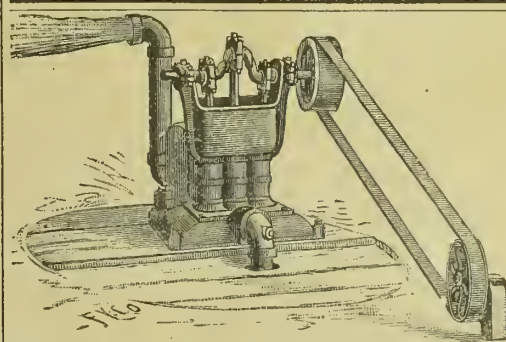
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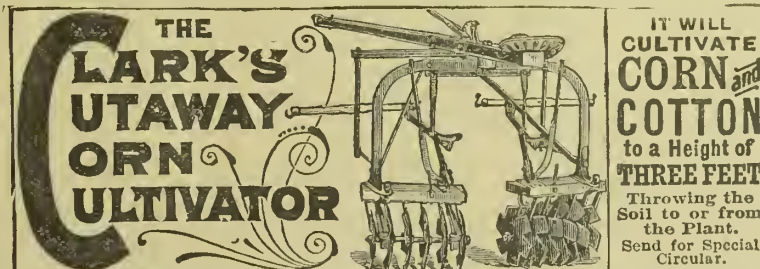
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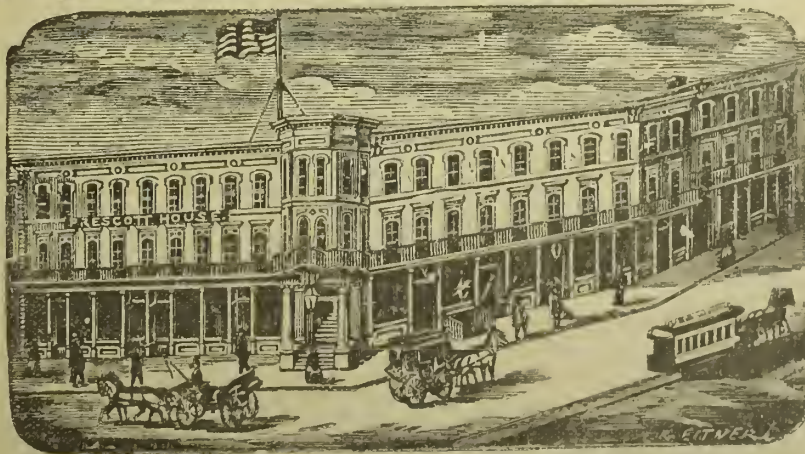
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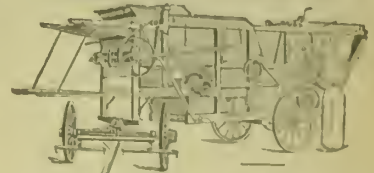
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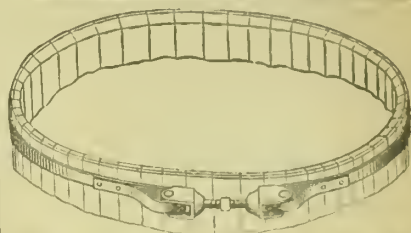
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